

## Evaluation of school facility management: the case of a high school context in Indonesia

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### ABSTRACT

This study employed the context, input, process, and product (CIPP) model to evaluate the facilities management of a private high school in Jakarta, Indonesia. Participants included teachers, staff, parents, students, and vice principals. Data collection methods encompassed interviews and checklist observations, with participant triangulation used for data validation and verification. Findings indicated a moderate alignment between the context and the objectives of facilities management. While the input, processes, and outputs somewhat addressed stakeholders' educational needs, the school principal effectively facilitated the teaching and learning environment through her roles as a planner, implementer, and supervisor of facilities management. Nevertheless, the school encounters several challenges, such as adapting to the digital era, securing funding, competition, the necessity for a qualified facilities manager, and the need for repairs in several facilities. By identifying the strengths and challenges in the current management practices, including the role of the principal and the impact of digital transformation, the study provides valuable insights for improving facility management. The study recommended the development of a digital facility management system to enhance accessibility for both educators and students.

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## 1. INTRODUCTION

A primary responsibility of school districts is to provide adequate and appropriate learning environments, with high quality instructional settings being essential [1]. The provision of high-quality school facilities [2] and a well-maintained facility contribute to creating a conducive learning environment [3], which benefits students' academic performance, health and overall environment as evidenced by research findings. Extensive research over the years have demonstrated the importance of school facilities in education [4]–[11]. Schneider [12] explained for instance, identified six categories of school facilities influencing learning: indoor air quality, ventilation, and thermal comfort; lighting; acoustics; building age and quality; school size; and class size. Subsequent studies have expanded Schneider's research to include the impact of design components, building conditions, and overcrowding on educational outcome [4], [5]. In the perspective of Glewwe *et al.* [13], school facilities serve as learning environments for pupils and have been shown to have a substantial impact on educational outcomes, particularly in impoverished nations.

Prior research findings have shown the correlation and impacts of school facilities on several aspects. For example, school amenities are associated with student accomplishment in both affective and psychomotor

domains [10]. High quality school facilities also have a direct impact on the environment while also stimulating economic growth in the surrounding communities [9]. Building conditions have an impact on academic success, as they affect social climate and student attendance [8]. Maxwell [8] highlights the impact of school buildings or facilities on student and staff safety, health, and comfort on the students' achievement, whereas Uline and Tschannen-Moran [11] and Lafortune and Schönholzer [14] found a strong correlation between quality facilities and high achievement in English and Mathematics. Consequently, enhancing student accomplishment is possible through the construction, maintenance, and financing high-quality educational facilities [15], [16]. Effective facilities management is therefore critical for sustaining high-quality standard and improving students' learning experiences.

Facility management is defined as the process of ensuring that organization's buildings and other technological systems support its activities [17] and the process of coordinating the demand for and supply of facility services to support an organization's effectiveness [18]. FM also performs a variety of tasks, including maintenance and repair, occupant health and safety, catering, and security, as well as cleaning, fire safety, proffering, and contractor invitation [19]. The relevance of understanding FM's contribution in general is acknowledged in FM literature [20], [21]. Amaratunga and Baldry [22], [23] have shown a causal link between the practices of facilities management and performance. FM is then, widely acknowledged for its role in enhancing organizational performance and, as a result, delivering competitive advantage [22]. Spedding and Holmes [24] asserted that the goal of FM should not only be to reduce building operating costs, but also to improve the efficiency of space management and other relevant assets (people and processes). These viewpoints present the idea that there is a relation between organizational objectives and the function of FM. Similarly, in the words of Barret and Baldry [25], the goal of FM is to provide facilities services. FM, consequently, is essential to maintain educational facilities, and measure its effects to teachers' and students' performance, and school success. Atkin and Brooks [26] also highlighted that FM is an integrated approach used by organizations to manage, maintain, upgrade, and modify their infrastructure and buildings.

Given the significance impact of school facilities on both teachers and students, FM research is a necessity. The primary purpose of FM is to provide, maintain and measure its effectiveness for learning and teaching, which is a great of magnitude for the school organization. As Desbalo *et al.* [27] also pointed out the necessity of FM to support the main educational objective. Previous studies have predominantly focused on the impacts of school facilities and its management using survey, interviews, observation, and questionnaire. Duyar [28] noted that one of the most underappreciated organizational aspects in educational researches is the condition and quality of educational facilities. In addition, efficient facility management is vital for effective organizational operations [26]. Thus, this current study differs by employing the context, input, process, and product (CIPP) model to evaluate facilities management at secondary school level, thus contributing to the literature of FM and practical contribution on school facility management. This study also elaborated how the facilities management aligns with the 2013 curriculum implementation, and the obstacles during its implementation. The main research question addressed is: to what extent does the school's facilities management match the educational needs of students and the learning facilitation using the Stufflebeam model?

## 2. METHOD

### 2.1. Research design

This qualitative study aims to evaluate the facilities management within the context of the 2013 curriculum implementation at a private secondary school. Employing the CIPP model, which is renowned for its effectiveness in educational evaluation such as educational programs, institutions, and curricula [29]. Because the CIPP model is extensively used and recognized as a helpful technique to educational evaluation, this model is ideally suited to this analysis [30]. The context component includes identifying the needs of the students, challenges and problems, objectives, resources, and establishing criteria for evaluating outcomes aiming to identify ends and required results. The input component includes the plans, strategies, and budgets necessary to meet the distinct goals of FM. The process component encompasses the stages of planning, procurement and maintenance. Finally, the product component accesses the changes of FM and learning outcomes. This comprehensive approach provides a thorough evaluation of FM in supporting the educational objectives of the 2013 curriculum.

### 2.2. Participants

The unit analysis for this evaluation is a private Islamic secondary school in Jakarta, Indonesia. We employed pseudonyms for the investigated school and all participants in order to protect the participants' privacy. We also obtained a consent letter to consider for approval. A female school principal, vice school principals of curriculum affairs and school facilities affairs, two male teachers and one female teacher, one female librarian, two students' parents, and six students in grades 10th, 11th, and 12th are among the participants in the study. While they were at school, we met all the participants including the pupils and

teachers. Parents' phone numbers were obtained from the school, and they volunteered to participate once we introduced and elucidated the study's aims.

### 2.3. Data collection and data analysis

Data for this study was gathered through observation and interviews. We made notes and kept a notebook regarding the school's facilities during the observation. We also employed checklist observation to identify school facilities in line with the Minister of National Education's minimum standard, as per regulation number 24 of 2007 dated June 28, 2007. In addition to record face-to-face interviews, we also used WhatsApp due to the constraints imposed by the COVID 19 Pandemic. Each interview lasted approximately 30 to 45 minutes. We also needed the data from the facilities list for document analysis. To check and validate the data, we employed participant triangulation. We transcribed and analyzed the data from the participants' interviews after recording it. We coded and categorized the data in order to perform qualitative analysis. Participants were asked to review and provide feedback on our data interpretation in order to ensure reliability and rigor.

## 3. RESULTS AND DISCUSSION

Fostering a favorable learning environment and advancing educational objectives depend heavily on efficient school facility management. Facilities management in high schools must support the goals of creating areas that are secure, easily accessible, and stimulating for both teachers and students. This study assesses important facets of facility management, such as its goals, the sufficiency of inputs supporting educational needs, the efficiency of management procedures, and the impacts on learning outcomes, using the Stufflebeam CIPP model. The goal of the study is to offer thorough insights into how well facility management aligns with high school learning objectives.

- Question 1: To what extent are the objectives of school facilities management related to the context using the Stufflebeam model?

To identify the extent to which the objectives of the facilities management is correlated to context, the observation and interviews were collected to obtain the data. According to Stufflebeam and Shinkfield [30], the first phase is context, which focuses on identifying the needs of the target population, describing challenges, setting objectives, identifying resources, and establishing criteria for evaluating outcomes. Focusing on these aspects and the school's vision, mission, and 2013 curriculum, we interviewed students and parents to assess the provision of school facilities, gathering essential data

*I selected this school for several reasons. Firstly, it is grounded in Islamic values, which are essential for teaching my children to understand and practice their religion daily, especially in today's complex world. Secondly, its location is convenient, being close to my home. While the facilities and infrastructure might have some minor shortcomings, I believe they are generally sufficient to support the learning process. (Mr. Park, student's parent, via WhatsApp)*

*This school has an "A" accreditation, indicating that it is exceptional or very good. As a mom, this is really essential to me. If the accreditation is A, it signifies that the teachers, buildings and infrastructure, supporting activities, and other aspects of the school are of high quality. (Mrs. Dewi, a student's parent, phone interview)*

*I like this school, I like my friends, the school, the teachers, and the numerous extracurricular activities, including sports and the arts. (Dika, Grade 10<sup>th</sup>, face to face interview)*

*School conditions are generally decent, sports equipment is fairly complete, and other infrastructure is adequate. Although some equipment is damaged or in poor shape, it does not interfere with the learning process or extracurricular activities. (Lolita, Grade 10<sup>th</sup>, face to face interview)*

*Our school is a top private Islamic institution in Jakarta, earning an "A" accreditation. With 13 classes and 388 students, we offer ample facilities and diverse activities in arts, sports, sciences, and religious practices. (Ms. Julia, a teacher, face to face interview)*

The school's "A" accreditation underscores its high quality in teaching, infrastructure, and extracurricular activities, enhancing its reputation. Students benefit from a supportive environment, friendly peers, and diverse activities. Despite some equipment issues, the facilities are generally adequate. High enrollment and positive feedback highlight the importance of quality, accreditation, activities, and religious learning in school selection. However, the school faces challenges such as financial constraints, inadequate management, and insufficient monitoring. As a private secondary school, it relies on fees and limited government funding, making facility upgrades costly. The school's vision and mission, rooted in Islamic values, aim to integrate faith, compassion, knowledge, and technology, essential for student achievement. Interviews with the principal and vice principal confirm the importance of these goals for student success.

*Our school aims to become an international-quality Islamic educational institution by fostering students' character, faith, and knowledge through a well-defined vision and mission. This involves a commitment to*

*continuous quality improvement as a form of worship to Allah SWT, integrating Syar'i curriculum with character education, innovating teaching methods, enhancing teacher competencies, and focusing on student and stakeholder satisfaction. (School principal, face to face interview)*

*Facilities and infrastructure play a crucial role in creating a comfortable and conducive learning environment, boosting students' motivation and achievement. Balancing Islamic values with science and technology is essential, achieved through well-managed facilities like comprehensive laboratories, libraries, prayer spaces, and areas for Islamic activities, thereby supporting both academic and spiritual growth. (Vice principal of school facilities affair, face to face interview)*

School facilities are crucial for the overall educational experience, and evaluating them helps identify areas for improvement, optimize resource allocation, and ensure the school meets its educational objectives. Based on our checklist observation, 86.48% of facilities are available, indicating a good category, while 68.06% are in good condition. However, 22.91% are under repair. During the period of online learning, the school utilized the opportunity to repair these facilities so they would be ready for offline learning. The facilities and infrastructure meet the minimum standards set by the Regulation of the Minister of National Education, No. 24 of 2007, dated June 28, 2007.

Evaluating outcomes based on the 2013 curriculum involves criteria that include laboratories, studios, fields, libraries, and IT facilities. These resources help students actively engage with instructional materials, enhancing logical, coherent, and systematic thinking. Effective facilities management supports the school's vision and mission of balancing Islamic values with science and technology education. Professional management of educational facilities ensures an efficient and effective learning process. Interviews indicate that the school's vision aligns with the objectives of facilities management, which is crucial for implementing the 2013 curriculum successfully. Effective school facility management supports the integration of Islamic values with science and technology education, aligning with the school's vision and mission. The goal is to provide professional services for educational facilities, ensuring an efficient and effective learning process. Interviews reveal a strong link between the school's vision and facilities management objectives in implementing the 2013 curriculum.

- Question 2: To what extent did the inputs of school facilities management contribute in achieving the educational needs using the Stufflebeam model?

The input component includes plans, strategies, and budgets for implementation. The principal's role is crucial for school and learning effectiveness, particularly in facilities management. Principals act as planners, implementers, and controllers, aiming to increase equity and expand facilities. They address development challenges continuously, involving teachers in workshops and training, as highlighted in following teacher interviews.

*We attended workshops and training on developing and planning school infrastructure, such as adding buildings and constructing the front gate. We learned the importance of facilities management for student achievement. A well-maintained, clean, and safe classroom enhances our comfort in teaching. (Patria and Sulisty, face to face interview)*

As an executor, the principal actively manages educational infrastructure, responding to needs, facilitating materials, and guiding teachers in infrastructure development. As a controller, the principal ensures targeted, effective, and efficient infrastructure development, directing and overseeing activities to align with plans and standards. This includes adding buildings and essential infrastructure, with a focus on continuous improvement per the Minister of Education and Culture's standards.

*As deputy principal for facilities and infrastructure, I observed that the principal has done her best in accordance with his role in developing school facilities and infrastructure. Together with vice principal of the curriculum affair, I assist her in planning, developing and supervising these activities in accordance with the vision, mission, and work program that has been determined. (Mr. Vika, vice principal of facilities affair)*

*In terms of budgeting, the school holds regular meetings with vice principals, teachers, and the school committee to plan and discuss the facilities budget. We calculate operational costs and determine which items need to be purchased or repaired. As a private school reliant on fees and committee aid, some repairs are deferred, but they address issues gradually to ensure optimal facility. (Mrs. Principal, Face to face interview)*

The school has adequate facilities and infrastructure to meet the needs of students. The facilities and infrastructure support the 2013 curriculum, essential for teaching and learning. Observations show infrastructure is well-fulfilled and improved, while facilities meet requirements but need further enhancement, managed by the deputy for infrastructure and approved by the head of the school.

- Question 3: What is the extent to which processes of school facilities management contribute to the educational needs of students using the Stufflebeam model?

In terms of process, Stufflebeam [29], contends that evaluators must foresee, assess, and observe problems in the plan or its implementation. After that they need to provide input on how to carry out the action

plan's improvement. The process component of school facilities management in this current research encompasses three stages: planning, procurement and maintenance.

a. Planning stage

At the planning stage, teachers propose learning tools based on each subject's basic competence, involving the principal, vice principal for infrastructure, administration head, treasurer, school committee, and teacher council. This collaborative process, conducted at the start of each school year, aims for thorough planning. The outcomes include providing student handbooks, lesson books, and classroom LCDs. Procurement is handled through purchasing, while library books are directly ordered from the printer in specified quantities.

*In regulating the management of facilities and infrastructure, currently the principal is still in charge. The principal always adjusts first to financial conditions by prioritizing the facilities and infrastructure that are more needed. Other staff and I only help. During meetings, for example all teachers submit proposals for the procurement of facilities and are usually discussed at a meeting before the new school year. (vice principal of facilities affairs, face to face interview)*

b. Procurement stage

According to Ministerial Regulation No. 24/2007, the procurement of school facilities involves analyzing needs, classifying requirements, and proposing to the government (for public schools) or the foundation (for private schools). If approved, eligibility is assessed, which is followed by delivery. At this school, the process includes analyzing needs, listing procurement plans, and estimating costs based on required standards, as indicated in interviews.

*We check and analyse the procurement of the required facilities. We had a meeting first and then decided to buy it on a budget. In this procurement, we prioritize the most important needs or emergency needs first. (Principal, December 13, 2021, in-person interview)*

c. Maintenance stage

Maintenance of school facilities involves all members, including special officers, principals, teachers, and students. Effective routines are conducted daily from Monday to Saturday, with flexible maintenance by responsible parties. This comprehensive approach ensures facilities remain well-maintained and functional, even during the pandemic with online learning.

*Facility maintenance is well-managed, with routine cleaning and prompt replacements for damaged items. A scheduled maintenance check occurs every three months for air conditioners, chairs, LCDs, and classrooms. (Principal, December 13, 2021, in-person interview)*

During the facilities management process, several obstacles were identified: financial constraints limit equipment acquisition, lack of awareness among students and teachers about maintenance, no designated officer for the lab and computer room, improper use and placement of inventory, and insufficient regular monitoring by infrastructure officials.

- Question 4: What is the extent to which the learning outcomes (products) of school facilities management contribute to the students' needs using the Stufflebeam model?

The last component is product, which means to measure the intended and unintended learning outcomes. This factor helps to identify whether the student and beneficiary needs have been met and to what extent. It also assists in discovering the intended and unintended side effect, and to render decision as whether to continue, stop, or make an improvement plan [29]. The 2013 curriculum lists spiritual, social, knowledge, and ability competencies, all supported by well-managed facilities. This school also offers daily coaching, religious activities, excellent programs, and extracurriculars to enhance the learning process. Student comments highlight the effectiveness of these facilities and programs.

*They are fairly complete and good, I think. Sport facilities, and laboratories support our learning and it makes me feel enjoyable staying at school. But because now, it is pandemic, we have to limit our activities. But I hope someday we can go to school like before. (Lydia, Grade 12<sup>th</sup> face to face interview)*

*I think all laboratories are complete, we have language laboratory, chemistry, biology, and physics laboratory. So, we can practice and use the equipment optimally. The laboratory rooms are also quite big and clean. (Setyo, Grade 12<sup>th</sup> face to face interview)*

*The classrooms and its equipment are in a good condition. We have also a room for a gym. It is comfortable. I like school health unit, which has clean and fragrant bedroom. So, if I want to take a rest for a while, sometimes I go there and sometimes, I go to praying room. (Suga, Grade 11<sup>th</sup>, face to face interview)*

*Well, school with good facilities make students enjoyable and love staying there for a long time, right. That's what I feel. That's why I do hope, the pandemic is over, we can go to school without wearing mask, without*

*having social distance with other. We can use all the facilities freely too. (Jimin, Grade 11<sup>th</sup>, face to face interview)*

Educational facility and infrastructure management is responsible for managing and maintaining facilities and infrastructure so that they can contribute optimally and meaningfully to the educational process. Based on the interview with the vice principal of curriculum affair, school facilities management foster the school performance and student achievement as well, as following account.

*One of the criteria of accreditation is school facilities. Our school is ranked A, I reckon, due to our school facilities, which is in accordance with the minimum standard. We obtained the accreditation since 2018 with number "SK Akreditasi 288/BANSM-P/DKI/2018." Additionally, our students also have obtained several achievement from language contest, sports competition, reciting Al Quran in national and international competition such as we are nominated for the National Water Rocket Competition PPPITEK-TMII, 1<sup>st</sup> Place for Speech at Muhammadiyah University, Jakarta, 1<sup>st</sup> Place Azhan Olyq III – The International Olympiad of Quran and Technology, 2<sup>nd</sup> Place in Arabic Speech Olyq III – The International Olympiad of Quran and Technology, 2<sup>nd</sup> Place in Musabaqah Tilawatil Quran Olyq III – The International Olympiad of Quran and Technology, and other trophies, maybe more than 50 competitions as you can see from the display.*

The library is essential for student learning, offering diverse resources like books, journals, and digital media that enhance educational outcomes. It supports research, critical thinking, and independent study. A well-maintained library provides a conducive environment for focused learning, fostering academic success and lifelong learning habits. Mrs. Yasi highlighted its significant contribution to student learning.

*Teaching and learning activities may not be able to function properly if there is no infrastructure. Of course, the facilities and infrastructure needed to facilitate student learning must be appropriate. The library is one of them, and it is used since it is a resource for student learning. Even though today's students rely on their gadgets to read or get the information, reading text books has a different vibe. That's why, students still come here to read, borrow, or simply hang out with their buddies. It has a lot of book collections, multimedia room, and cozy reading room.*

School facilities and their management are imperative for the teaching process, as they directly impact the quality of education delivered. Additionally, proper management of school facilities creates an optimal educational setting that promotes effective teaching and maximizes student learning outcome. A senior teacher informs the contribution of the school facility and its management for his teaching in following interview.

*Adequate and well-managed school facilities greatly enhance the teaching process, creating a conducive learning environment and providing necessary resources. These facilities support and facilitate student achievement, fostering creativity, activity, and innovation. Teachers find it easier to access needed equipment, which boosts motivation. Overall, the availability and proper management of school facilities are essential for both teachers and students, significantly supporting and motivating their efforts. (Boedy, face to face interview)*

The availability of suitable facilities and infrastructure is closely related to the effectiveness of scientific learning, which is the approach in the 2013 curriculum. The laboratory, studio, field, and library, as well as the entire facilities within, are areas that can be used for learning and getting necessary information in accordance with instructional materials. It can be concluded in this evaluation product that the integration of information technology in the 2013 Curriculum will undoubtedly aid students in answering their questions with additional sources and broadening their perspectives in responding to the situations that arise. Furthermore, the well managed of qualified facilities contribute to student outcomes and effectiveness of teaching learning process for both teachers and students. The aim of this study was to evaluate how the CIPP model linked to facility management in a private Islamic school. The current findings demonstrated that the facilities management objectives were reasonably appropriate with the CIPP model [31], which means that the facilities management objectives met stakeholder needs in the context, input, process and product component. Given that the management of the school's infrastructure and its facilities is critical to the school's main business, as well as the school's beneficiaries such as students, teachers, staff and parents, the facilities' maintenance is highly required. de Vries *et al.* [32] highlighted that the maintenance's negligence firstly saves limited resources, but it reduces the equipment's technical lifespan, diminish staff motivation, student satisfaction, and student attraction, resulting in a poor performance of finance. In addition, Barret and Baldry [25] noticed that facilities management's purpose is to deliver facility services. It means that the school has also responsibility to maintain the school facilities, which contributes to educational achievement. The needs of budgeting are then a priority for its maintenance. Even though it is costly to improve a school's facilities, the benefits to teachers, schools, and students are worth it and have been shown through several previous research findings. For instance, the study found out that the practices of funding have a moderate to high relationship with the allocation of suitable teaching and learning resources [33].

Physical capital, human capital, and social capital must all be at the same level for the teaching and learning system to be effective [28]. The significance of school facilities as physical capital of the teaching and learning system, which is the focus of this research, is crucial since they have a direct impact on student achievement. Teachers' and students' contentment, as well as the satisfaction of students' parents, have become essential social capital in facility management. In terms of human capital, teacher and student performance both have a significant impact on the teaching and learning process as well as school quality. For instance, study revealed that school amenities have an impact on students' achievement in the affective and psychomotor domains of learning [10] as it is proven and similar to this current study. The synthesis of research found that students' academic outcomes are influenced by five factors: i) gain access to school sites, ii) harmless and healthy schools, iii) ideal learning spaces, iv) take advantage of the benefits of pedagogy and the interaction of school community, and v) the procedure for optimal planning and execution [34]. In terms of teachers' effects, the study of Buckley *et al.* [35] and Plotka *et al.* [36] indicated a substantial link between teachers' opinions of building maintenance and condition and their intentions to stay or leave the profession in the United States and the United Kingdom, respectively. In the context of procurement and design of school facilities, the report of prior study presents new evidence on the impact of school procurement and design on student well-being and educational outcomes [37]. Similarly, Hassanain *et al.* [38] elucidated that the social and educational prosperity of a community is dependent on the design quality of its school buildings. The condition of school facilities also contributed to the delivery of instruction, such as Duyar [28] reported the positive relations between six out of ten conditions of school facilities and delivery of instruction. FM is utilized to assist major activities and help to organizational goals being met [25] and has the potential to have a substantial impact on people's performance in and around organizations [18]. Accordingly, it can be concluded that school facilities management, which includes facility service, budgeting, maintenance play pivotal role for school organization. In line with leadership competency of school principal in facility management, study found that the most significant leadership ability in FM crisis management was discovered to be emergency preparedness [39]. Thus, school principal as an instructional leader is anticipated to be well positioned to have certain competencies to make decision on the planning, management and evaluation of the school facilities. The school principal in this study has executed the functions as well. For example, the school's procurement of buildings and infrastructure includes doing a needs analysis, creating a list of procurement plans based on the results of the needs analysis, and establishing a list of anticipated costs or prices for products or equipment based on the required standards.

The environment in which pupils learn can have an impact on their learning [40]. Cele [41] emphasized that the achievement of educational goals is totally dependent on the physical learning environment, as well as the sociocultural teaching and learning environment and facilities management. Owoye and Yara [42] highlighted that the availability, adequacy and relevance of the school facilities will affect the extent of efficiency and productivity of the learning process whereas the lack of availability and insufficiency of facilities contributed to low student performance [43]. Research of Young *et al.* [44] has demonstrated that the quality of facilities has also affected citizen perspectives of schools and can serve as a source of pride for community and greater supports for public education. The study's findings revealed that the management of exploratory schools requires administrative procedures in order to achieve a high level of sustainable development of the school building in the field of school and service facilities [45]. In other words, the existence of school facilities is insufficient to be sustainable; it must be accompanied by the quality of its facilities, maintenance and facility management. In the views of Van Slyke and Goode [46] the school building management is dependent on several factors, including the facility's technical, physical, psychological, health, and instructional characteristics. These three factors are essential responsibilities for the school principal and serve good indicators of the school's internal efficiency [45].

#### 4. CONCLUSION

This study contributes to the understanding of facilities management in educational institutions by applying the Stufflebeam CIPP model to evaluate a private high school in Jakarta, Indonesia. The research highlights the importance of aligning facilities management with educational objectives and addresses how effectively the school meets stakeholders' needs through its facilities. By identifying the strengths and challenges in the current management practices, including the role of the principal and the impact of digital transformation, the study provides valuable insights for improving facility management. The recommendation for a digital facility management system offers a practical solution to enhance accessibility and efficiency, underscoring the necessity for ongoing adaptation and investment in school infrastructure. This study, however, has some limitedness. First of all, this study solely focused on one private school, limiting the finding generalizability. Secondly, this qualitative approach employed relied on data from a small number of participants and school due to the pandemic. Lastly, the measures of students' needs, and its impacts to their satisfactions were based only on the interviews with very limited participants. Therefore, this research

potentially has a level of subjectivity. To address these limitations, future research should consider a comparative study of school facilities between private and public secondary schools in all areas including urban and rural cities. Furthermore, it is suggested to conduct a study to design comprehensive facility management to improve school effectiveness. Further research is also recommended to reveal the impacts of school facilities with different aspects and the needs of students and teachers.

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