



Effective Leadership In The Digital Age: Challenges And Strategies In Education

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Abstract: This study aims to describe effective leadership in the digital era to discover the challenges and strategies. The method used is literature study by reading, writing, analyzing, and summarizing. The data sources used are literature sources, namely books and journals related to research topics. The data analysis technique uses *content analysis*. Content analysis is used to research the most relevant, relevant, and quite relevant literature. Then, a study was carried out by looking at the year of publication from the most up-to-date, up-to-date, to not up-to-date but having substance related to this research. Then, the researcher reads the abstract, which will then be researched and recorded in detail by the researcher. This research results in effective leadership oriented towards data-based decision-making and wisdom is a solution for leadership in the digital era. The strategies formulated are (1) strengthening the quality of human resources, (2) improving facilities and infrastructure, (3) making decisions based on qualitative and quantitative data, and (4) acting wisely in facing challenges. Effective leadership is one of the solutions of leadership types in answering challenges in the digital era.

Keywords: Effective Leadership, Digitalization, Strategy and Challenges

INTRODUCTION

The rapid development of information technology has brought this era to the digital era (Kayworth & Leidner, 2002). The digital era is marked by the development of social media, which is still accompanied by the use of AI in daily life. This condition provides a new culture in the world of education. (Irwan Maulana, 2022)The digital era brings advantages to the management of education. This advantage encourages stakeholders to make effective decisions by taking advantage of existing digital developments. This course

development requires a leader to see problems with discipline and utilize technology to answer existing problems.

Schools as an organization must certainly be able to manage technological developments as best as possible. There are two influences given in the world of education, namely (1) learning; (2) Administration (Chen et al., 2020). Learning in the digital era has given birth to a new way of learning, namely online learning and other methods that involve technology so that it can strengthen students' understanding by utilizing existing technology. The implementation of administration in educational institutions can be done more efficiently by utilizing technology. Therefore, a leader needs to manage the school effectively and efficiently.

Effective leadership has an important role in carrying out leadership in the digital era. Effective leadership is basically articulating the vision, instilling loyalty, and leading the employee's talent directly toward the desired goal (Hassi, A., 2019). Effective means right on target. Effective leadership provides an overview of what is expected, explains why you chose the reason, and what kind of policy changes will be faced. (Rothman, 1975).

This concept of effective leadership must of course be (1) able to encourage subordinates to achieve common goals; (2) able to provide directions to carry out in accordance with the set objectives; (3) able to influence subordinates to carry out something; (3) be able to suggest subordinates by giving concrete examples to subordinates (Hakim & Fahrudin, 2020).

LITERATURE REVIEW

Era Digitalization

Since the invention of the internet in 2000 in America, the development of technology and information has been so rapid and massive that it has brought new cultures to the world. Humans cannot be separated from technology in their daily lives. As a result of the intense human interaction with this technology, companies engaged in technology and information make various features to provide satisfaction for customers, so the era of digitalization was born.

The era of digitalization is marked by a technological and information revolution that affects all sectors, especially the education sector. Education can take advantage of this era of digitalization to (1) disseminate information provided to the public; (2) collecting information from the public (Ahmad et al., 2021). These two benefits can be used as material

for making decisions. The era of digitalization has brought new trends to the world of education, namely: (1) online admissions; (2) online payments; (3) online teaching; (4) teaching with the help of the latest technology; (5) digital books; (6) E-notes; (7) fun-filled learning; (8) online examinations, results and notices (Hans & Crasta, 2019).

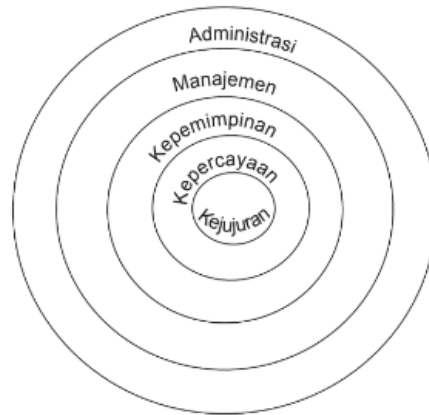
In addition, digitalization can also bring about the modernization of institutions driven by digitalization (Ronzhina et al., 2021) One of them is the E-Leadership leadership model. In e-leadership, leaders utilize technology in carrying out their duties. With E-Leadership, leaders can effectively control their organization to run well despite different spaces and times. The use of applications in administrative collection and learning media also contributes to encouraging modernization changes in the world of education.

Administration can be created, collected, analyzed, and assessed through predefined applications. Of course, this application makes the expected results more accurate and does not require a lot of paper. Learning videos through applications and other recordings also makes it easier for students to get information and learn from anywhere. Of course, the leaders must manage this so that the expected results can be obtained according to expectations.

EFFECTIVE LEADERSHIP

Effective leadership is one type of leadership that has been used for a long time. Effective leadership is a type of leadership for a leader to do his or her job correctly and in the right way to achieve goals. (Amirudin Siahah, 2018) Effective leadership involves doing the right thing, which means that leaders must make the right decisions.

The essence of leadership is basically honesty. Honesty is an inner value for every leader. From this honesty, the leader will gain trust. From these two elements, leadership is born. Leaders need to master managerial and administrative skills.



Source: Husaini Usman, 2018

The distinctive feature of effective leadership is that a leader is able to provide direction and motivation, achieve common goals with his team members (Budiyono, 2023). This kind of explanation covers a wide range of aspects, for example, a leader must be able to explain and understand his subordinates about the vision and mission of the institution, empower teams and organizations, and build effective communication with subordinates. There are several things that must be considered in this effective leadership, namely: (1) Development of a clear vision and mission. Influential leaders must be able to explain and develop the vision and mission to be the basis for subordinates to do something; (2) empowerment of the management team. This empowerment includes how leaders are able to put the right people in the right positions as well as build a positive atmosphere with subordinates; (3) effective communication, effective leaders must be able to build targeted communication to teachers and the community both with and without using means; (4) Managing change well, effective leaders must be able to read the situation, opportunities and challenges in each change that will occur. (Suryadi et al., 2023).

In addition, effective leadership also affects the entrepreneurial competence of the principal and social relations with subordinates. (Thahira & Rimbasari, 2023). According to (Thahira & Rimbasari, 2023) The following characteristics characterize effective leadership:

Indicators	Explanation
Ability to inspire	Able to inspire subordinates to be the best
Ability to facilitate	Able to facilitate the wishes of subordinates to be better
Ability to Motivate	Able to build motivation from within the subordinates
Ability to be accountable	Trustworthy and accountable

Positive attitude	Have a friendly and kind behavior
Ability to monitor	Able to monitor every activity
Ability to influence	Able to influence subordinates

Table 1. Indicators and Explanations of Effective Leadership

Challenges Of Effective Leadership In The Digital Age

The digital era, in addition to bringing benefits to educational institutions, on the one hand, also brings challenges that leaders in educational institutions must face. The leaders of these educational institutions need to answer these challenges to continue to exist and compete globally. The challenges that must be faced are technological disruption and work culture. This technological disruption requires subordinates to be able to learn new skills to manage technological change. In addition, a leader also needs to learn the fruitfulness of work culture to remain flexible, positive, and productive.

The challenges school principals face in education are very complex, including technological, social, economic, and psychological aspects. (Patodingan, 2024). The challenge that the first principal must face is to be able to understand digital literacy and be required to be able to think creatively, innovatively, collaboratively, and communicatively (Rosita & Iskandar, 2022). Digital literacy requires school principals to be able to master and manage social media and other devices wisely. Irwan Maulana, (2023) One of the challenges of this digital era is the decline in the morale of the younger generation. This deterioration is a serious problem because this young generation tends to be consumptive without filtering the content on social media. Therefore, there needs to be cooperation between educational institutions and the government to solve this problem. (Berampu & Sari, 2021).

Technology provides ease of accessing information; however, on the one hand, it can be a challenge for leaders because first, it can make educators and education personnel less productive and have an instant nature because all material is already on the internet, second, students' reasoning power becomes less critical because they rely on answering questions through google. (Budiyono, 2023). In facing the challenges of this era of digitalization, effective leadership has the character of executives, builders, benevolent autocrats, and bureaucrats (Sutiadi et al., 2023).

Effective Leadership Strategies In The Digital Era

The digital era brings many changes, especially in the management of organizations. Organizational management, especially in educational institutions, requires effective leadership to be applied in the organization. There needs to be a formulation of competencies for effective leadership in the digital world. These competencies are as follows: (1) Think Leader: In the midst of increasingly fierce competition due to the emergence of new competitors, leaders who have extraordinary resilience and expertise are needed; (2) Creative Leaders: Digital technology opens up opportunities for new business models and accelerates innovation. Therefore, digital leaders must have a creative mindset that can turn future ideas into real reality; (3) Global Visionary Leaders: Digital leaders must be able to provide clear direction and function as regulators in the digital business transformation process; (4) Curious Leaders: With a complex and dynamic ecosystem thanks to big data, digital leaders need to have the ability to learn and implement their digital knowledge and skills; (5) Deep Leaders: Digital leaders must have a deep understanding of policy because in the digital era, access to information is increasingly open. Everyone can now access and analyze information thoroughly, allowing leaders to dig into knowledge and make better decisions (Istaryaningtias, 2019).

The above competencies need to be possessed by leaders in running their educational institutions. Digital leadership is also called E-Leadership. This e-leadership is carried out by a leader using digital in managing his organization. In this regard, an effective leader needs to have the following characteristics, namely: (1) adaptive to change; (2) have a clear and comprehensive vision; (3) effective communication; (4) data-driven decision-making; (5) have empathy and emotional intelligence; (6) the ability to manage conflicts; (7) Building positive relationships; (8) inspiring; (9) good listeners; (10) have digital intelligence; (11) having a strong spiritual soul (Ali, S & Hasanah, E., 2021).

In addition, a good leadership strategy is also needed to achieve the desired organizational goals, the strategies are (1) the principal must improve the quality of human resources and improve facilities and infrastructure; (2) providing supporting facilities and infrastructure; (3) the reaction made by the principal to technological changes; (4) process- and result-oriented (Muslimah Hikmah Wening & Achadi Budi Santosa, 2020).

Human resources are the key to success in an organization. Human resources are a renewable resource. The key to the success of a leader in the digital era is to invest in human resources. This investment can be made by holding training for existing human resources. The provision of adequate facilities and infrastructure can also be the key to the success of

leadership. The existence of facilities and infrastructure that support the leadership process will make leadership more effective and efficient in carrying out effective and efficient leadership. In addition, because the change process is speedy and uncertain, it takes wisdom for a leader to choose a reaction. The reaction that must be chosen is a positive reaction that has a good impact on the progress of the organization. Finally, a leader must focus on the process and results of his organization.

Rosmini (2024) They explained effective leadership strategies in this digital era, namely: (1) vision and leadership, (2) collaboration and communication, and (3) infrastructure and resources. A leader must understand and provide an understanding of vision and master the art of leadership. Providing understanding to subordinates about the vision and encouraging strong leadership will positively impact the organization. Collaboration and communication are the keys to the success of leadership. The collaboration will provide a variety of abilities to the existing leadership results. Infrastructure and resource development are key to the success of an organization.

RESEARCH METHODOLOGY

This study uses a literature study. Literary research or literature study is a systematic effort in accessing, collect, and analyze various kinds of materials available in libraries which include book references, previous research, journal articles, and journals to support and answer research problems (Prastiwi & Widodo, 2023). The literature study in this study focuses on researching literature related to effective leadership in the digital era. The method of this activity is carried out by collecting library data, reading, recording, and managing research results objectively, systematically, analytically, and critically regarding effective leadership: strategies and challenges in the digital era (Putri et al., 2020). The literature study in this study is actually carried out in the same way as other research approaches, only that the data is taken from literature sources, read, analyzed, and recorded. The purpose of this method is to answer

Data analysis techniques use *content analysis*. Content analysis is used to research the most relevant and relevant literature. Then, a study was carried out by looking at the year of publication, from the most up-to-date to not up-to-date but having substance related to this research. Then, the researcher reads the abstract, which will then be researched and recorded in detail by the researcher.

RESULTS AND DISCUSSION

The era of digitalization affects mankind's daily lives. It is a consequence of human thinking and reasoning that gives birth to creativity and innovation in the fields of technology and information. All kinds of changes in this era of digitalization must certainly be addressed wisely because it contains two things, namely challenges and benefits.

The success of educators lies in the principal because the principal is the person who has the highest authority in the school in making a policy. School principals need to analyze challenges that include technological, social, economic, and psychological challenges to find solutions through established strategies (Patodingan, 2023). The technological challenge faced is the rapid development of technology, which brings positive and negative values that school leaders need to be aware of. The social challenge is how the altruism culture has begun to erode and shift to individual culture. This has become a serious problem and causes the younger generation to become socially nervous. The economic challenge is how school principals are able to provide financial resources and manage finances effectively and efficiently because digitalization requires additional costs. Psychological challenges include a new mindset and a new culture in students, so they need to be addressed properly by the leadership. In addition, school principals must also always learn, especially about digital literacy, so that technological and information developments can be managed properly for the goals that have been set.

With the challenges in the digitalization era, it is important for school principals to formulate strategies to deal with the problems that exist in the digitalization era. Effective leadership is one of the solutions to facing challenges in this era of digitalization. Effective leadership encourages his subordinates to be able to understand the leadership vision, facilitate what is needed by subordinates, be able to build motivation, be able to maintain trust and be accountable, be able to monitor and be able to influence their subordinates (Thahira & Rimbahari, 2023).

Effective leadership encourages leaders and their subordinates to always be adaptive to change, have a clear and comprehensive vision and mission, be able to communicate effectively to subordinates and the community, make data-based decisions both quantitative and qualitative data, have high spiritual, emotional, and empathetic intelligence towards subordinates, as well as the leader's ability to manage conflicts (Ali, S & Hasanah, E., 2021) In addition, effective leadership also focuses on substantial things and does the right things so that all resources can be managed efficiently.

Before formulating an effective leadership strategy in the digital era, a leader needs to have the required competencies, including (1) having a deep and broad thinking about the factors that cause change; (2) having high creativity to answer developing challenges, (3) have a far-sighted outlook; (4) have a high curiosity and solve problems (Istaryaningtias, I. E. K., 2019).

Improving the quality of human resources is the most important strategy and needs to be carried out in leadership in this digital era. The principal can provide training and provide a wide range of facilities needed. Second, the provision of facilities and infrastructure needs to be improved so that the leadership process can run well. After that, control reactions wisely and data-driven so that every decision can run well and focus on the process and results. In facing the challenges of this era of digitalization, effective leadership has the character of executives, builders, benevolent autocrats, and bureaucrats (Sutiadi et al., 2023).

CONCLUSION

The era of digitalization has brought various kinds of changes in the world of education. This change covers various lines of education, so effective leadership is needed to answer the existing challenges. Effective leadership oriented towards making the right and wise decisions and encouraging leaders to have a broad and deep perspective, communicate and collaborate, and have high creativity and innovation is the key to answering the challenges at this time. Effective leadership needs a concrete strategy to address its challenges in the digital era, namely focusing on improving human resources, facilities and infrastructure, data-based decision-making, and wisdom. In addition, effective leadership also plays the role of executive, development, autocrats full of wisdom, and bureaucrats that allow leaders to collaborate with the government and the community to answer existing problems.

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