**Research article**

# The Implementation of a Learning Management System in Achieving SDGs for Creating Decent Work and Sustainability of Organization

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**Abstract.**
Learning management systems have helped many companies in providing work comfort to their employees and protecting them from the impact of the pandemic. Another goal of the companies is to support government programs in achieving sustainable development goals (SDGs), especially health security. This study describes employees' acceptance of learning management systems in Indonesia. The study analyzed system quality, perceived self-efficacy, facilitating conditions, functionality, user interface design, perceived ease of use, perceived usefulness, behavioral intention, enjoyment, learning goal orientation, and employees' attitudes. Data were collected through interviews and analyzed using thematic analysis.

**Keywords:** Learning Management System, SDGs. Sustainability Organization

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## 1. Introduction

The Indonesian government has taken steps to deal with Covid-19. To prevent the spread of the Covid-19 virus, which is increasingly widespread, the DKI Jakarta Provincial Health Ministry has implemented a Large-Scale Social Restriction (PSBB) policy. PSBB made organizations set physical limits, such as changing the workplace, which initially worked in an office working at home through electronic media. Then, the Government determined Covid-19 as a non-natural disaster nationally through Presidential Decree (Keppres) No. 12 of 2020. Directly, the PSBB regulations due to Covid-19 impacted on organizations.

Physical restrictions during the Covid-19 period forced employees to do work from their respective homes. This is regulated in the Regulation of the Governor of the Special Capital Region of Jakarta Number 33 of 2020 Article 9 Paragraph 2. The term Work from Home (WFH) has finally become trending. The term WFH is not a new concept

in organizations. In the concept of human resources, the concept of WFH is known as telecommuting.

In line with this, the company anticipates the impact of Covid-19 by implementing learning management system (LMS). The use of a learning management system is an effort from the company to protect employees from the covid pandemic. Another goal is to support government programs to achieve sustainable development goals (SDGs), especially health security. Organizations have a responsibility to support government policies in achieving sustainable development goals (SDGs). The organization is part of the government's stakeholders to assist the government in achieving the level of public health [1]. Moreover, during this pandemic, organizational involvement is needed in implementing programs to protect employees.

LMS has provided convenience in learning related to efficiency in business operations. This efficiency is related to the use of cheap media because it can save some aspects. First, the cost. Companies can make savings in the implementation of learning. Learning activities do not need to be carried out in face-to-face meetings, which sometimes require additional costs, such as different cost allocations for meals, renting a place, printing documents, and other stationeries. Second, accelerating the provision of feedback to employees capable to find out the learning outcomes. Thus, the company can also immediately know the effectiveness of the employees learning outcomes. This will certainly help the organization capable to make decisions regarding the follow-up of the learning results. Third, make it easier for learners capable to find and organize learning materials. Learning materials can be updated at any time so that learning participants will always get new and up-to-date materials. Learners can develop learning methods through some aspects, namely the use of images, sound, video, animation, or text. Thus, the participants of learning can get variety in teaching. Fourth, learning time can be done at any time. Online learning can adapt to the need of employees. In carrying out the learning, they do not need to feel rushed to end the learning if it is held at home. Fifth, learning through this LMS encourages the learners to take part in the learning process independently. Sixth, documenting the performance of the participants or employees can be done well. Accessibility of information about employee performance can be adequately traced. Employees can evaluate the learning process that has been followed well to improve future performance.

This pandemic condition further reinforces the benefits of LMS. The use of digital is indeed supportive during this pandemic [2]. Employees who want to access information or participate in the learning process can feel comfortable learning. They feel safe because the possibility of contracting the virus can be controlled. They don't need to interact with each other. However, LMS is also inseparable from the shortcomings

faced by organizations. Employees often own internet constraints that are not smooth. An unstable internet connection causes poor communication, so the learning process is not optimal. Unstable internet conditions can sometimes cause frustration to learn because time runs out to wait for the internet network to run smoothly. This study aims to describe employee acceptance of LMS implementation in Indonesia with the Technology Acceptance Model from Davis and Venkatesh [3]. This study also aims to analyze employee resilience in the face of organizational changes related to Covid-19 and digitalization in business processes.

This study is based on two studies on Technology Acceptance Model (TAM), which based on their studies, show several external factors that can support the acceptance of usefulness and ease of use. The first study was Fatema *et al*[4], and the second study was Al-Aulamie[5]. This study involves system quality, perceived self-efficacy, facilitating conditions, functionality, user interface design, perceived ease of use, perceived usefulness, and attitude towards using, behavioral intention, user interface design, computer playfulness, computer playfulness, enjoyment, and learning goal orientation. This study also analyzes the perception of employee resilience. This shows that it is related to the resilience and ability of employees to face changes, including the implementation of LMS related to the organization's efforts in anticipating Covid-19. The study related to employee resilience has previously been analyzed [6].

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## 2. Method

Data collection from study related to the technology acceptance system by banking employees during work from home (WFH) has been carried out. Data collection was carried out online through surveymonkey.com, which ran from August 14, 2020, to September 17, 2020. The results showed that there was considerable interest in filling out the questionnaire. The number of surveys that have been filled out for three days is 5245. The data were analyzed descriptively related to the answers of the informants.

## 3. Results and Discussion

## 4. The description of respondents

The distribution of 5245 respondents came from all regions of Indonesia. The top five areas where respondents came from North Sumatra (1267 respondents), DKI Jakarta (1555 respondents), East Java (457 respondents), South Sulawesi (450 respondents),

and West Java (203 respondents). Others came from Aceh, Bengkulu, Lampung, Banten, Central Java, Special Region of Yogyakarta, West Nusa Tenggara, East Nusa Tenggara, West Kalimantan, Central Kalimantan, South Kalimantan, East Kalimantan, West Sulawesi, Southeast Sulawesi, North Sulawesi, Maluku, and Papuans.

The implementation of WFH in offices is motivated by the widespread COVID-19 in almost all of Indonesia. WFH is part of protecting workers' rights to occupational safety and health (according) Law no. 13 of 2003 concerning Manpower. In more detail, this WFH policy is also a follow-up to the Instruction of the Governor of DKI Jakarta Province No. 16 of 2020 concerning Increased Awareness of Transmission Risk of Corona Virus Disease (Covid-19) infection. As many as 73.84%, employees implement the WFH policy while the rest do not implement the WFH policy. This may be due to workplace conditions that do not allow working at home. Thus, like it or not, employees work in the office.

The results showed that only 3391 of the 5245 respondents registered in the survey gave answers. Zoom is a video communication application using an easy and reliable cloud platform for video and audio conferencing, collaboration, discussions, and webinars across mobile, desktop, phone, and room systems. In addition, at work, Zoom can be used for holding meetings to coordinate between departments. The percentage of Zoom usage in this study for the implementation of WFH was 84.43%, followed by the use of the Whatsapp application. The use of this application is beneficial in carrying out daily work. Zoom itself consists of physical hardware settings that can support the company's meetings for work coordination. Zoom has some features that can be used according to the needs of employees at work. Some things can lead to the advantages of using Zoom. First, Zoom produces videos with good HD quality and clear display quality. Second, Zoom also supports the safe mode feature. Third, Zoom can make it easier for users to invite other colleagues to use this application. Fourth, Zoom is also able to support all platforms and provide cloud services. Fifth, Zoom is considered as an application that provides guaranteed security services.

This study data also shows that the WhatsApp application is widely used after Zoom. The WhatsApp application has conveniences, among others. First, this application will automatically synchronize employee contacts. When the employee finishes adding a new connection or number and then wants to contact that person, the employee does not need to synchronize the phone contact with the WhatsApp contact because there is synchronous automation. Second, WhatsApp is an open-source application that can make it easy for employees to make arrangements according to work needs.

Regarding the profile of the respondents, it is known that the number of online survey participants is more male than female respondents. The majority of the respondents

who filled out the WFH survey were married. The number of respondents was 76.91%. In addition, of the number who were married, the majority of respondents who already had children were 87.81%. Based on the type of residence, almost all of the respondents live in landed houses. Only 3.24% of respondents live in apartments.

The average respondent already has a family. The establishment of this WFH policy will make it easier for employees who are already married to supervise children at home during this pandemic. They can also be safer and protected at home while still doing office work. During this pandemic, children also do not carry out learning activities outside the house, so this policy is considered a positive side for the family. They can carry out activities together at home. That way, they can keep an eye on each other. Mobilization is limited to only at home so that family health can be maintained by implementing WFH. 70.42% of respondents live in their own house while the rest choose to rent a house. It also shows their ability to own their own home. Meanwhile, for employees who do not have their own house, it can be because there are still respondents who are still unmarried. The consideration for choosing a home contract is efficiency in financing. Related to education data, the profile of respondents received education from high school, diploma, bachelor, master, and doctoral degrees. The domination of the respondents' education is undergraduate education, which is 78.68%, followed by education at the diploma level of 11.64%. This education shows the ability of employees to complete tasks well and is a prerequisite as employees of a company.

## 4.1. The perception of respondents toward Learning Management System

Learning through LMS is self-management learning, meaning a learning process that requires discipline from employees to learn on their own when there is a schedule that must be independent [7]. It is necessary to develop aspects of self-discipline capable to learn without direct guidance. The results showed that respondents' perceptions related to the use of LMS.

The implementation of this LMS is the company's effort to prepare the inner side of banking in facing Covid-19 and business digitalization. LMS is a set of tools and functions such as learning management, online discussion forums (online group chat), documents (including material from lecturers, assignments to be done at home/homework), presentations, video downloads, ratings, and evaluations. Learning/courses support teaching and learning process [4,8]. Thus, adaptation to this needs to be anticipated from the inner side of banking companies through the readiness of banking employees. It is expected that there will be no technological stuttering and can support better and

professional business performance. In addition, the company's ability to anticipate external changes in the organization is a form of employee resilience[9].

These external changes are related to the impact of Covid-19 as well as the influence of technology. Study associated with LMS has produced various theories and models to explain the pattern of adoption and use of new technologies[10]. In addition, this study is important considering the interaction between humans and technology is influenced by some social and psychological factors[11]. This study has shown some results as follows.

### 4.1.1. System quality

System quality (SQ) is related to functions, speed, features, content, LMS interaction capabilities. This SQ refers to the ability of information systems to perform transactions, which includes software and data components. SQ measurement usually focuses on estimating the performance characteristics of the system under study. 43.06% of respondents stated that they were satisfied with all the functions offered by the work from home internet application; 41.41% of respondents stated that they were satisfied with the speed of internet application media at home when working from home; 41.16% said they were satisfied with the company's work system when working from home and 42.27% said they were satisfied interacting with internet application media when working from home.

### 4.1.2. Perceived self-efficacy

In the context of using an LMS, PSE indicates an assessment or belief in the user's own ability to operate/navigate/work with the LMS. In general, users with high PSE develop stronger perceptions of the PEOU and PU of a system. Meanwhile, if a person feels unable to use the system, the LMS will be judged as less useful and challenging. The results showed that 45.95% of respondents felt confident using the internet application media features when working from home; 47,012 respondents felt confident in operating the internet application media functions used when working from home, and 46.23% of respondents felt optimistic about using online learning on internet application media used when working from home.

### 4.1.3. Facilitating condition

Facilitation conditions (FC) reflect the availability of resources such as time, money, and other specific resources needed to engage in the behavior. In the context of LMS, FC indicates the availability of related resources, namely technical assistance, internet infrastructure, hardware, software, learning, online assistance to work with LMS. The results showed that 41.10% of respondents felt that if they needed help, direction on internet application media used when working from home, the office provided a helpdesk for them; 42.45% of respondents agreed that there were certain parties available and willing to provide direction if there were problems related to the use of internet application media when working from home, and 43.91% of respondents agreed that there were specific instructions that focused on the use of internet application media available to them.

### 4.1.4. Perceived Ease of Use

Perceived ease of use (PEOU) is how a person believes that using a particular system will be free from physical and mental effort or refers to the extent to which users believe that using a specific system of application is easily comfortable. Systems or applications considered easier to use than other applications are more likely to be accepted by users, so the ease of the system using has a causal relationship with the acceptance of the system's usefulness. The results showed that 46.95% of respondents agreed that the interaction with internet application media when working from home was very clearly understood; 47.64% of respondents agreed that interaction with internet application media when working from home is easy to understand; 41.72% of respondents agreed that interaction with internet application media when working from home produced quite a lot of effort; 46,54% of respondents agreed that internet application media when working from home is easy to use.

### 4.1.5. Perceived Usefulness

Perceived usefulness (PU) is defined as the extent to which a person believes that using a particular system will improve their job performance. The usefulness of a system is highly valued; in turn, a user believes there is a positive use-performance relationship as a result of usinJg the system. The results showed that 40.68% of respondents agreed that using internet applications when working from home improved their performance as employees; 40.03% of respondents agree that using internet applications when working

from home increases work productivity; 40.45% of respondents agree that using internet applications when working from home increases my effectiveness at work, and 44.34% of respondents agree that internet applications when working from home are helpful for work. LMS contains aspects of authenticity. This feature allows users or learners to have an account to open the system. Each participant can access performance better regarding performance assessment in the learning process[12].

### 4.1.6. Attitude toward Using

Attitude toward using (ATT) is an attitude toward use, in turn, is a function of two main beliefs: perceived usefulness and acceptance of the ease of a system using. ATT refers to the degree to which a person evaluates and judges behavior as favorable or unfavorable. The results showed that 45.07% of respondents agreed that it was advantageous to use internet applications when working from home; 45.22% of respondents felt like using specific internet applications when working from home and 48.50% agreed that it is highly recommended to use applications when working from home.

### 4.1.7. Behavioral Intention to Use

Behavioral intention to use (BI) is defined as a measure of the strength of a person's intention to perform certain behaviors or is referred to as individual readiness. The behavioral intention of the user to use the system is influenced by the attitude and perceived usefulness of using the system. The results showed that 49.85% of respondents intend to use the functions and content of internet applications to help work, 46.61% of respondents plan to use the functions and contents of internet applications when working from home as often as possible, and 47.63% of respondents intend to use the functions and content of internet applications when working from home in the future.

### 4.1.8. User Interface Design

User Interface Design (UID) is the interface between systems to provide basic information about employees such as business units, geographic locations, and job titles. UID plays a crucial role in improving the usability of applications because it is a medium for interaction between computers and humans. Regardless of the degree to which the application supports the functional requirements, unless the application is easy, efficient, and close to the user's heart, the application must face failure because the UID provides users with an abstract view of the whole system, the success of the system

largely depends on the UID. The results showed that 46.06% of respondents agreed that the design of the internet application used when working from home was very easy to use; 46.49% of respondents agreed that the instructions given by internet applications used when working from home are apparent, and 45.14% of respondents agreed that the design of the internet application used when working from home is very good.

### 4.1.9. Computer Playfulness

Computer playfulness is a system that supports convenience for the use of technology. It supports the ability of individuals to optimize the use of computers or technological tools to support performance. The results showed that 45.71% of respondents felt comfortable using internet applications when working from home; 43.90% of respondents agreed to feel creative by using internet applications when working from home, and 45.06% of respondents felt comfortable using the internet applications when working from home.

### 4.1.10. Enjoyment

Enjoyment is defined as the other side that can support comfort and pleasure in using internet technology as performance support. The results showed that 43.94% of respondents agreed that the process of using internet applications when working from home was fun; 45.75% of respondents agreed that they like to use internet applications when working from home, and 44.65% of respondents agreed that using internet applications when working from home is very enjoyable.

### 4.1.11. Learning Goal Orientation

The results showed that 48.58% of respondents agreed to choose a challenging job where can learn a lot; 49.65% of respondents agreed to see opportunities to develop new skills and knowledge; 46.97% of respondents enjoyed challenging and challenging tasks; 48.07% of respondents agreed that developing learning skills is essential and 48.11% of respondents chose to study in situations that required high ability and talent.

### 4.1.12. Employee Resilience

Adaptation to changes in working conditions needs to be anticipated from the inner side of banking companies through the readiness of banking employees. It is expected that there will be no technological stuttering and can support the achievement of better

and professional business performance. In addition, the company's ability to anticipate external changes in the organization is a form of employee resilience. The results showed that 49.37% of respondents agreed that effectively collaborating with others in facing the challenges of working when working from home; 46.79% of respondents felt successful in managing a reasonably high workload when working from home; 50.41% of respondents agreed that they can solve problems well at work; 51.14% of respondents agree that learning from mistakes at work and improving the way of carrying out work; 50.34% of respondents agreed to conduct a performance evaluation in handling work when working from home; 51.32% of respondents agreed that they will seek help when I need it when working from home; 50.61% agreed that they approach my subordinates/superiors (both superiors or subordinates or both) when they need help when working from home; 48.58% of respondents agreed to use the opportunity to develop themselves when working from home.

## 5. Conclusion

This study described employee acceptance of the implementation of LMS in Indonesia. This study involves system quality, perceived self-efficacy, facilitating conditions, functionality, user interface design, perceived ease of use, perceived usefulness, and attitude towards using, behavioral intention, user interface design, computer playfulness, enjoyment, and learning goal orientation. This pandemic has affected all companies in various sectors to implement policies that provide work comfort and employee safety while still providing opportunities for employees to achieve good performance targets. To support better working conditions, the company implemented a working system from home during the pandemic.

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