



## The Effect of Information Systems, Information Technology and Organisational Culture on Performance

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**Abstract:** Literature Review Article The Effect of Information Systems, Information Technology and Organisational Culture on Performance is a scientific article that aims to build a research hypothesis of the influence between variables that will be used in further research, within the scope of Human Resource Management science. The method of writing this Literature Review article is by *library research* method, which is sourced from online media such as *Google Scholar*, *Mendeley* and other academic *online* media. The results of this literature review article are: 1) Information systems affect performance; 2) Information Technology affects performance; and 3) Organisational Culture affects performance.

**Keywords:** Performance, Information Systems, Information Technology and Organisational Culture

### INTRODUCTIN

Every undergraduate, graduate and postgraduate student must conduct research in the form of thesis, thesis and dissertation. Likewise, lecturers, researchers and other functional staff should actively conduct research and produce scientific articles for publication in scientific journals. Scientific work is a requirement for students to complete their studies at most universities in Indonesia. This provision applies to all levels of education, namely undergraduate thesis (S1), undergraduate thesis (S2), undergraduate dissertation (S3).

Based on empirical experience, many students and authors have difficulty finding supporting articles for their scientific work as previous research or as relevant research.

Relevant articles are needed to strengthen the theory being researched, to see the relationship or influence between variables and to build hypotheses. This article discusses the influence of Information Systems, Information Technology, and Organisational Culture on Performance, a literature review study in the field of Human Resource Management.

## LITERATURE REVIEW

### Performance

Performance is the result of a person's work in completing the duties assigned to him, taking into account his skills, experience, seriousness, and time. Achievement is the work that can be accomplished by an individual or group within an organization, in conformance with their respective authorities and responsibilities, within the context of efforts to attain organizational objectives. (Prayetno & Ali, 2017). Dimensions or indicators of performance include quantity, timeliness, cost-effectiveness, supervision requirement, and interpersonal impact. (Prayetno & Ali, 2017).

Performance is accomplishing a task and refining it in accordance with its responsibilities and expected outcomes. Responsibility and expected results play a greater role in determining performance. (Putri Jayanti & Syamsir, 2018). Salary, work environment, organizational culture, leadership and work motivation, work discipline, technology acceptance, and communication are among the dimensions or indicators of performance. (Agustin, 2021). Work performance is the result of completing assigned duties and responsibilities within a specified time frame. (Lilyana et al., 2021). Accuracy of task completion is the administration of time at work and the precision of employees in completing tasks. b. The appropriateness of working hours is determined by the employees' willingness to adhere to company regulations regarding punctuality/return to work and the number of attendances.

A company's attendance rate can be determined by the number of employee absences during a given period. Cooperation between employees is the capacity of employees to complete their task in concert with others. (Setiawan & Pratama, 2019) "A task is determined so as to achieve the greatest possible usability and results." Numerous researchers, including Hendra (2020), Putri Primawanti and Ali (2022), Setiawan and Pratama (2019), Basyit and Edy (2020), Caissar et al. (2022), and Ronald and Hotlin (2019), have studied this performance.

### Information Technology

Information systems are commercial enterprises' implementations of information and communication technology systems. Information system support in the twenty-first century is crucial. Due to the emergence of numerous large-scale change fluxes. This transformation propels the global economic system into the fourth phase, which is a creative economy (Khristianto et al., 2015). In corporations, the development of complex management information systems necessitates the employment of highly qualified individuals as company administrators. Many businesses falter as a result of selecting managers by nationality.

This failure is the result of a shortage of personnel and human resources with knowledge of management information systems. Manager passivity within the framework of the system design process, in addition to motivating employees involved in the management information system process (Rusdiana & Irfan, 2019).

Management information systems are communication processes in which inputs are recorded, preserved, and retrieved as outputs pertaining to system planning, operation, and monitoring (Danang Sunyoto, 2014). Information systems are the consequence of technological progress that businesses use to conduct operational tasks. Through the use of information systems, the pace and accuracy of data acquisition can be increased (Mirnasari and Suardhika, 2018). The success of an organization in achieving its objectives is highly dependent on the management skills of its leaders (Krismiaji, 2015). A nation can flourish if a company has excellent and competent management.

Due to differences in tasks, a manager requires information to perform their duties. Due to distinctions in time, information type, uncertainty, and reporting, these variations exist. Information is a fundamental and conceptual asset. A manager's primary responsibility is to

direct the optimisation of the efficient use of resources. This may be accomplished by, among others.

- a. Resources should be organized so that they can be utilized immediately when required, or modifications must be made beforehand.
- b. maximizing resource utilization.
- c. Resource renewal (Purnama, 2019).

### **Information Systems**

A company uses information technology to generate, process, and disseminate information in any format. Therefore, information technology can provide mangkus and sangkil support for business operations. This applies to small and medium-sized enterprises (SMEs). Information technology is beneficial for reducing the cost of conducting business operations. (Muafi, Roostika, and Ratna, 2014) Small and medium-sized enterprises (SMEs) allocate and store budgets that are subsequently used for other development purposes in their operations.

The function of information technology in human activities is crucial. Information technology can be a fundamental facilitator of business activities and can be of great assistance in making fundamental changes to the company's structure, operations, and management. As a result of the existence of information technology, people experience an abundance of conveniences, particularly in the organization of business activities. For instance, due to information technology, individuals can withdraw money from ATMs without visiting a bank. Additionally, transactional activities are simple to execute. Only by utilizing electronic institutions do purchasing and selling activities become simpler for humans. The availability of e-commerce also facilitates human shopping. Home-based economic activities are organized. Therefore, information technology is extremely useful for actively enhancing the function of humans as information providers in tasks and processes. Information technology acts as a counterbalance and enhances human performance when completing duties. Numerous businesses have initiated investment programs in the field of information technology. This is motivated by all forms of practicality provided by information technology and can enhance competitive positions, reduce expenses, and increase the adaptability of society. Information technology's convenience can facilitate connections between individuals or organizations. groups with one another in the workplace. This is possible regardless of distance and time; information can be updated whenever they desire. There are no influencing factors. impede group discussion, business activities, and ideation (Rusdiana & Irfan, 2019).

Information technology is a combination of computerized technology and interaction that will result in the formulation of software and hardware systems. The formulation of this software and hardware will be utilized for a variety of data processing, income, preparation, storage, and data manipulation activities. This technique is used to produce accurate, precise, and relevant information of high quality. This information is utilized by businesses to reduce their personal, uncertain, government, and business activities. (Samuel, 2019) Information technology can generate highly strategic data based on a company's requirements and decision-making objectives.

Information technology can be defined as a method for exchanging data and communications without the space and time constraints that frequently limit a person's actions. Information technology is an asset that consists of hardware, information theory, wireless networks, workstations, and robotics or intelligence generated through mechanized media from human thought. Components of information technology are used to perform and complete tasks efficiently and effectively (Aslizadeh and Ahmad, 2014). Information technology serves as an instrument that can enhance the interaction and communication between individuals. The purpose of information technology is to facilitate communication between individuals so that all information obtained can be conveyed accurately. Aspects of information technology are

subdivided into methods and means comprising system analysis, methodology design, programming, computer software and hardware, and the internet, which are integrated into a single system. Thus, information technology is envisioned as an instrument capable of detecting all types of human problems (Adietya et al., 2015).

(Maryanti et al., 2012), (Destriana, 2018), (Samsiah et al., 2018), (Jaryono & Widuri, 2011), (A. A. Hidayat & Achjari, 2017), (Prasetyaningrum et al., 2019), (Indrayani, 2012), and (Sawitri, 2016), to name a few.

### **Organisational Culture**

Rivai (Batu Bara, 2020) explains that the company's culture, also known as organizational culture, is a distinguishing characteristic that sets it apart from other organizations. Employee behavior is believed to be influenced by organisational culture because culture imparts positive or negative nuances to employee attitudes and behavior. A positive organizational culture will support increased employee motivation to work more efficiently, whereas a negative organizational culture will hinder the company's efforts to achieve its objectives. According to Barney, organizational culture is a product of the company's implemented beliefs, assumptions, values, and symbols that determine how it conducts business (Satyawati, 2014). (Krisnaldy, 2019) According to Robbin (2006), organizational culture is a shared perception that is embraced and implemented by all members of the organization.

In the meantime, according to Soedjono (2005), organizational culture can be a source of competitive advantage if it is able to support the business strategy of the organization. In addition, the culture of an organization should be able to optimally respond to and surmount environmental challenges (Satyawati, 2014). According to Robbins & Judges (Pratiwi, 2021), the following are indicators of organizational culture: a. Professionalism b. Integrity c. Teamwork d. Innovation e. Customer Focused. Organisational Culture has been the subject of extensive research by previous scholars, such as (Batu Bara, 2020), (Pratiwi, 2021), (Satyawati, 2014), and (Krisnaldy, 2019).

### **RESEARCH METHOD**

The method of writing this Literature Review article is the Descriptive Qualitative method and Library Research, sourced from the online application *Google Scholar*, *Mendeley* and other online academic applications. In qualitative research, literature review must be used consistently with methodological assumptions. This means that it must be used inductively so that it does not direct the questions asked by the researcher. One of the main reasons for conducting qualitative research is that the research is exploratory, (Ali & Limakrisna, 2013).

### **FINDINGS AND DISCUSSION**

Based on the relevant **theoretical** studies and previous research, the discussion of *this literature review* article is a review of **relevant articles**, followed by a review of the influence between variables and continued by making a conceptual thinking research plan:

#### **Review of Relevant Articles**

Reviewing relevant articles as a basis for setting research hypotheses by explaining the results of previous research, explaining the similarities and differences with the research plan from relevant research as table 1 below.

**Table 1: Review of relevant articles**

No.	Author (Year)	Previous Research Results	Similarities with this article	Differences with this article	Hypothesis
1	Adietya (2016)	Information Systems and Information Technology have a positive and significant effect on Performance	Information Technology affects Performance	Information systems affect performance	H1
2	Sawitri (2016)	Information Systems, Information Technology and Organisational Culture have a positive and significant effect on Performance	Information Systems & Information Technology affect performance	Organisational culture affects performance	H1
3	Samsiah (2018)	Information Systems and Information Technology have a positive and significant effect on Performance	Information Systems & Information Technology affect performance	Information Systems and Information Technology affect y2	H1
.4	Pamungkas (2017)	Information Systems and Information Technology have a positive and significant effect on Performance	Information Technology affects Performance	Information systems affect performance	H2
.5	Arisuniarti (2016)	Information Systems, Information Technology and Organisational Culture have a positive and significant effect on Performance	Information Systems & Information Technology affect performance	Organisational culture affects performance	H2
6	Yeni (2018)	Information Systems and Information Technology have a positive and significant effect on Performance	Information Systems & Information Technology affect performance	Information Systems and Information Technology affect y2	H2
7	Puryantini (2017)	Information Systems and Information Technology have	Information Technology affects Performance	Information systems affect performance	H3

		a positive and significant effect on Performance			
8	Pitoyo (2018)	Information Systems, Information Technology and Organisational Culture have a positive and significant effect on Performance	Information Systems & Information Technology affect performance	Organisational culture affects performance	H3
9	Anggoro (2020)	Information Systems and Information Technology have a positive and significant effect on Performance	Information Systems & Information Technology affect performance	Information Systems and Information Technology affect performance	H3

**Influence Analysis between Variables  
The Effect of Information Systems on Performance.**

Information systems have become an integral, online and interactive tool that is closely linked to the operating procedures of a company. Information systems can determine decision-making in large organisations. In the last decade, information systems can make changes to the fundamental sectors of the organisation's economy and make improvements in order to manage work. Economic and sociological concepts, methods and theories can provide assistance to humans to understand the changes caused by information technology (Handijono, 2020)

Changes brought by Information Technology can bring companies to digital and practical business processes. Information Technology is one of the basic needs needed by companies to help individual or group performance. The task of information systems is to provide assistance to organisations in order to present financial reports in the form of notifications and information that is reliable and has strong credibility. With this, many parties use information systems to gain an advantage over other organisations. Organisational systems are components of an organisation or company that provide user information by processing financial events (Zare, 2012). The web application was established to make it easier for employees to use it. The system produced from this application in the form of a Performance Appraisal System application can allow each employee to enter targets and activity achievements, leaders can provide an assessment and performance reports that are directly available in the application (Utomo & Putra, 2017).

In designing information systems, the results of web applications that can display reports of interest to employee attendance reports can be used as supporting data in employee performance appraisals (Yeni, 2018). The discussion of the influence of information systems on employee performance has produced many literacy studies, including, (Pamungkas, 2017), (Arisuniarti, 2016). (Anggoro & Hidayat, 2020), (Ostarisa et al., 2012), (Putra, 2011). The study has become evidence that information systems in management, competence and motivation greatly affect employee performance in the company.

**The Effect of Information Technology on Performance.**

In its development, information technology has a strategic and significant role in the company. Hardware and software support that has excellent quality can lead to a tendency for decentralised divisions within the company to have their own computer hardware. Resource



Based View (RBV) or Resource Based Theory has a very broad definition of resources, including assets, knowledge and capabilities. So RBT explains the relationship between information technology and employee performance. RBT discusses the diversity of resources owned by organisations that focus on excellence in firm specific resources.

Information technology is increasingly widespread and is needed to support all kinds of company management, so resources are needed that can provide maximum employee performance in order to go through all kinds of competition in the increasingly fierce world of work. Technology Resources do not have an effect without the presence of cooperation with human and business resources. The ability of human resources to use information technology is an added value in order to improve employee performance. With this, the company's targets and objectives can be achieved according to the predetermined time (Jaryono & Widuri, 2011).

The performance of information technology in public companies requires the support of human resources, business resources and technology that work together. It can be seen from the results of research that can prove that information technology based on human resources, business resources, and technology sources can have a positive influence on the performance of information technology. Information technology can support reliable human resources in order to make it easier for companies to process data more practically. Implementation of appropriate information technology is very effective in influencing employee performance in a company (Jaryono & Widuri, 2011). Based on this discussion, an analysis can be produced which shows that Information Technology has a very positive impact on the company's workforce. The application of information technology in government institutions has a good impact, so that employee performance has improved. The implementation of e-government which has improved is expected to have a positive impact on government performance in providing services to the wider community (A. A. Hidayat & Achjari, 2017).

In this case, the company's performance can be improved by improving excellence in the framework of competitiveness by improving information technology. This application can be done by making cost efficiency, facilities and increasing competitive advantage through promotional events. This will then cause an impact on increasing competitiveness which can automatically improve company performance (Adietya et al., 2015). The discussion of the influence of information technology on employee performance has produced many literacy studies, including, (Prasetyaningrum et al., 2019), (Indrayani, 2012), (Sawitri, 2016) (Samsiah et al., 2018) shows that information technology affects employee performance.

## **CONCLUSIONS AND SUGGESTIONS**

### **Conclusion**

Based on theory, relevant articles and discussion, hypotheses can be formulated for further research:

1. Information systems affect performance.
2. Information technology affects performance.
3. Organisational Culture affects performance.

### **Suggestions**

Based on the above conclusions, the suggestion for future authors is that there are many other factors that affect performance, apart from information systems, information technology, and organisational culture, therefore further studies are still needed to find these other factors. Other factors affect performance apart from the three variables examined in this article such as leadership, commitment and education.

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