

The Role of Information Technology on Work Productivity

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Abstract

The goal of this research is to examine how information technology and communication effectiveness affect job satisfaction, how job satisfaction affects information technology and communication effectiveness on work productivity, how information technology affects work productivity, and how job satisfaction functions as a mediating variable in the relationship between information technology and work productivity and communication effectiveness and work productivity. Research of this kind is quantitative in nature. Eighty-four employees of PT Ciptaniaga Roda Berdikari served as the research sample. Method of statistical analysis with SPSS software. The findings of the study analysis indicate that job satisfaction cannot mediate the relationship between job satisfaction and the impact of information technology on work productivity, nor can job effectiveness mediate the relationship between job satisfaction and the impact of communication effectiveness on work productivity.

Keywords: Information Technology, Job Satisfaction, Work Productivity, Effective Communication

Introduction

Broadly speaking, communication is the process by which individuals or groups exchange ideas, information, or feelings. Sending a message with the hope that the recipient would understand it is the aim. Language, symbols, and other indications with meanings that both parties can understand are used in communication. There are many different ways and routes for communication. Direct talks, group debates, presentations, and even phone calls can all be used as verbal forms of communication (Komariyah, 2022). Written forms of communication include emails, texts, letters, and social media posts. In addition, nonverbal cues including body language, tone of voice, eye contact, hand gestures, and facial expressions can all be used in communication.

Komariyah (2021) asserts that communication consists of a number of crucial components. First, there is the sender, who starts the communication and is in charge of delivering it in a pertinent and suitable way. The message itself is the second element, and it may contain instructions, ideas, information, or feelings that need to be expressed. For the recipient to understand messages, they must be clearly designed.

The physical setting in which communication takes place, cultural background, societal standards, and personal experiences are all examples of context and can have an impact on how communications are understood and interpreted. According to Komariyah et al. (2022) good communication requires the capacity to listen intently, articulate oneself clearly, comprehend the audience, and adjust to various circumstances. It also entails the capacity to forge strong bonds with others, take into account their feelings and viewpoints, and find solutions to issues or settle disputes when they arise. In both personal and professional contexts, effective communication is essential to building strong, fruitful connections (Sudrajat, 2022).

Information is now much more accessible because to technology. Information from all over the world may be easily accessed thanks to the internet. Many people now have easier access to information that was previously inaccessible. Additionally, technology makes it possible to handle and analyse data more quickly and intelligently (Komariyah, 2022). Unusable and meaningless data can be converted into valuable and significant information by utilising specific software and algorithms. Better decision-

making and a greater comprehension of trends and patterns are aided by this. Large storage capacities and effective data management solutions are also made possible by technology. Cloud computing and digital storage medium provide for the safe storing and on-demand access to information. Thus, technology has altered the ways in which we interact and work together. Instantaneous communication can be facilitated by email, text messaging, video calls, and other platforms, irrespective of geographical location. Online project collaboration is also a simple option (Komariyah, 2023).

The productivity and efficiency of employees can be raised by implementing the appropriate technologies. For instance, employees may share information, collaborate as a team, and communicate effectively and swiftly thanks to modern communication methods like email, text messaging, and collaboration platforms. Utilising pertinent software and applications can also assist staff members in scheduling, managing duties, keeping inventory under control, or monitor the status of the project. Employee productivity can rise and performance can improve with a mastery of the technology in their workplace.

Technology may also be utilised as a tool to deliver education, training, and staff development, claims Komariyah (2022). Employees can access training, courses, and learning materials autonomously and flexibly with the help of e-learning platforms, webinars, and online learning management systems. This aids workers in enhancing their competencies, knowledge, and abilities over time, which can enhance their output at work. In summary, excellent employee performance is supported by efficient use of technology, appropriate information availability, and effective communication. A productive work environment and the achievement of desired outcomes are largely dependent on the implementation of effective communication systems, ensuring proper access to pertinent information, and making effective use of technology.

Research on the impact of information technology and communication efficacy on worker productivity was conducted on Ciptaniaga Roda Berdikari for a number of significant reasons. A construction business with substantial operations and activity is Ciptaniaga Roda Berdikari. For a company with a large workforce, it's critical to comprehend the variables affecting workers' productivity at work (Sudrajat, 2023). In the context of construction enterprises, this study will shed light on the specific effects of information technology and communication on productivity.

Literature Review

Information Technology's Impact on Job Contentment

Komariyah et al. (2021) claim that employees' opinions of their work are reflected in job satisfaction. Prior research has demonstrated that employee performance is significantly impacted by job satisfaction. Information Technology Theory, according to Audirachman (2022), is a theory that explains how people comprehend and use information technology. The advantages of information technology, one's comfort level with it, one's attitudes towards information technology-related behaviour, one's intention to engage in information technology-related behaviour, and one's actual information technology-related behaviour are all indicators of information technology use.

H1: The impact of information technology on job satisfaction

Workplace Contentment Affects Productivity

Komariyah (2022) defines job satisfaction as an employee's good attitude towards their work, including their sentiments and behaviour towards it, and seeing it as a way to show gratitude for the significant values in their employment. Every person who works wants to be satisfied with their work. A manager should pay close attention to productivity since it is greatly impacted by job happiness. Consequently, a manager must be aware of the procedures involved in fostering employee job satisfaction.

H2: Work productivity is influenced by job happiness

Methods

The researcher has selected a particular form of quantitative research for this study. According to Kushendar (2021), quantitative methods are research techniques that are grounded in positivism and comprise population or sample analysis, data gathering, statistical data analysis, hypothesis development, and data analysis. Finding a relationship or influence between the independent and dependent variables is the primary goal of quantitative research. According to Kushendar (2021), the population in this study is an area for generalisation made up of persons or items with specific qualities chosen by the researcher to be investigated and used in drawing conclusions. The study's population comprised 577 managerial staff members of PT Ciptaniaga Roda Berdikari. By the same definition given by Sugiyono (2018), the sample is a subset of the population's size and makeup. For the purpose of data collection and statistical analysis in this study, 76 PT Ciptaniaga Roda Berdikari personnel made up the necessary sample.

Results and Discussion

Table 1. Gender of Respondents Gender

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	74	74,0	74,0	74,0
	Female	10	10,0	10,0	84,0
	Total	84	84,0	84,0	

Source: Processed Primary Data (2024)

Based on table 1, it is known that of the total 84 respondents, 74 were men or 74% of the total sample. Meanwhile, there were 10 female respondents or 10% of the total sample.

Validity and Reliability Test Results

The following is a table showing the results of the validity and reliability tests in this research:

Table 2. Validity Test of Work Productivity Variables

No. Question items	r count	r table	Information
PK1	0,852	0,1637	Valid
PK2	0,862	0,1637	Valid
PK3	0,740	0,1637	Valid
PK4	0,855	0,1637	Valid
PK5	0,827	0,1637	Valid

Source: Processed Primary Data (2024)

Based on table 2, it is known that the calculated r value > r table so that all question items for the Work Productivity variable can be said to be valid.

Table 3. Validity Test of Job Satisfaction Variables

No. Question items	r count	r table	Information
KK1	0,687	0,1637	Valid
KK2	0,651	0,1637	Valid
KK3	0,728	0,1637	Valid
KK4	0,754	0,1637	Valid
KK5	0,736	0,1637	Valid

Source: Processed Primary Data (2024)

Based on table 3, it is known that the calculated r value > r table so that all question items for the Job Satisfaction variable can be said to be valid.

Table 4. Validity Test of Technology Information Variables

No. Question items	r count	r table	Information
IT1	0,708	0,1637	Valid
IT2	0,747	0,1637	Valid
IT3	0,773	0,1637	Valid

Source: Processed Primary Data (2024)

From table 4, it can be concluded that all questions related to the Information Technology variable are considered valid because the calculated r value is greater than the table r value.

Table 5. Reliability Test Results

Variabel	Alpha Cronbach	Information
Work productivity	0,878	Reliabel
Job satisfaction	0,778	Reliabel
Communication Effectiveness	0,855	Reliabel
Information technology	0,831	Reliabel

Source: Processed Primary Data (2024)

Based on Table 5, it can be concluded that each variable in this study has a Cronbach's Alpha value greater than 0.6, which indicates an adequate level of reliability.

Conclusion

The following are the research's conclusions, which are based on the analysis's findings:

1. Performance effectiveness positively affects employee work satisfaction.
2. Information technology has a favourable impact on workers' job happiness.
3. Job satisfaction has no bearing on productivity at work.

Philosophical Consequences

The findings of this study have a number of theoretical ramifications that can advance knowledge in the fields of organisations and management.

1. The discovery that efficient communication improves job satisfaction and productivity at work lends credence to hypotheses that associate efficient communication with improved organisational performance.
2. Findings demonstrating the beneficial effects of information technology on job satisfaction and productivity at work suggest that investing in advanced systems and information technology can enhance organisational performance.
3. The conclusion that job satisfaction does not moderate the association between information technology or communication effectiveness and work productivity suggests that additional research is necessary to fully understand the other elements influencing work productivity.

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