



# EXAMINING THE FACTORS AFFECTING EMPLOYEE PERFORMANCE IN THE DIGITAL WORKPLACE IN COIMBATORE CITY

**Dr.B. Karthikeyan**

Assistant Professor, Department of Commerce IT BI, Hindusthan College of Arts and Science  
Coimbatore 641028

**Dr.S. Poornima**

Assistant Professor, Department of Commerce IT BI, Hindusthan College of Arts and Science  
Coimbatore 641028

Published online: Aug 2026

DOI Link: <https://doi.org/10.64971/j.cph.eijtem.v13.i3.22.2026>

## Abstract

The research aims to examine the key determinants affecting employee performance in digitally enabled workplaces, with particular emphasis on technological competence and digital competence. Primary data were collected from employees working in digitally enabled workplace environments through a structured questionnaire using convenience sampling, while secondary data were obtained from relevant literature. The research adopted a descriptive research design, and the collected data were analysed using percentage analysis, descriptive statistics and one-way ANOVA. The results reveal that technological and digital competence positively support employee performance, particularly through problem-solving, learning agility and virtual collaboration. Digital technology improves work efficiency, while communication, collaboration and workplace flexibility strengthen coordination and accountability. The findings also indicate that employees with greater work experience demonstrate stronger technological and digital competence, highlighting the importance of accumulated workplace exposure. Work experience influences technological competence, whereas work devices show limited influence.

**Keywords:** Digital Collaboration, Digital Communication, Digital Competence, Employee Performance, Technological Competence, Workplace Flexibility

## INTRODUCTION

The digital workplace has become an important organisational environment where employees perform, coordinate and communicate their daily responsibilities through digital tools, collaborative platforms and technology-enabled systems. The increasing use of digital technologies has transformed conventional work practices by facilitating information access, knowledge exchange, task coordination and communication. As employees increasingly depend on digital systems, technological competence and adaptability have become important considerations in maintaining effective work performance.

Technological competence enables employees to use digital tools efficiently, adapt to technological changes and address work-related challenges. Digital communication and collaboration are also important, as employees depend on digital platforms to exchange information, coordinate tasks and maintain effective workplace interactions. Workplace flexibility further supports employees by allowing adjustments in working methods, schedules and locations according to organisational requirements. Therefore, technological competence, digital communication and collaboration and workplace flexibility can represent important factors associated with employee performance in digitally enabled workplaces.

The present research examines the factors affecting employee performance in the digital workplace, with particular emphasis on technological competence, digital communication and collaboration and workplace flexibility. It evaluates whether digital proficiency, technological adaptability, communication quality, collaborative practices and workplace flexibility contribute to overall

employee performance. The research also considers digital communication and collaboration as a connecting dimension between technological competence and employee performance, providing broader insight into how digital work practices influence employee outcomes.

#### **STATEMENT OF THE PROBLEM**

The rapid adoption of digital technologies in modern workplaces has transformed how employees communicate, collaborate, perform tasks and manage work responsibilities. However, differences in technological competence, digital skills, adaptability and access to effective digital tools may influence employees' ability to perform efficiently. Although digital technology can improve productivity and work effectiveness, employees may face challenges in adapting to emerging technologies, maintaining effective digital communication, collaborating through virtual platforms and managing flexible work arrangements. Therefore, there is a need to examine the key factors affecting employee performance in digitally enabled workplaces, particularly technological competence, digital competence, digital technology, communication, collaboration and workplace flexibility, and to understand how these factors contribute to effective employee performance.

#### **REVIEW OF LITERATURE**

**Dao, T. H. A., Sisavath, C., Bui, H. T. T., Bui, T. Q., & Le, T. H. (2025)** explored the impact of digital workforce training on employee productivity, motivation, job satisfaction and digital behavior. The data was collected from 497 employees. The research applies structural equation modeling (SEM) to analyze relationships between digital workforce training, motivation, job satisfaction, digital behavior and employee performance. The results reveal that digital workforce training has a significant positive effect on employee motivation, engagement and adaptability in digital workplaces. The research demonstrates the value of continuous development of digital skills in improving employee competencies and ensuring long-term organizational success. The findings offer practical insights for business leaders and policymakers aiming to optimize digital workforce training programs, fostering a more innovative and efficient workforce in the digital economy.

**Eftimov, L., Cvetkoska, V., & Kitanovikj, B. (2025)** identified the key human and organizational factors influencing employee productivity in the digital workplace. The data were collected from employees to examine the factors associated with productivity in digitally enabled work environments. The research employs a multilinear regression analysis, supported by theoretical triangulation of the person-environment fit, social information processing and open resource-based view theories. The results highlight that several enabling factors that positively or negatively influence employee productivity in the digital workplace. The research provides useful implications for researchers, practitioners and policymakers seeking to enhance productivity and effectiveness in digitally enabled work environments.

**Wang, G., Niu, Y., Mansor, Z. D., Leong, Y. C., & Yan, Z. (2024)** investigated the driving factors of EDC and their impact on employee digital performance (EDP). Simultaneously, incorporating the competitive climate (CC) as a moderating variable between employee dynamic capabilities and employee digital performance addresses theoretical gaps in specific regions in China, particularly in SMEs. The data collected from SMEs in four Chinese provinces: Shanghai, Guizhou, Guangdong and Anhui. It employs CB-SEM (AMOS) to analyze the new conceptual framework. The results indicate that SMEs encourage to seize the opportunities presented by emerging digital technologies and industry digitization trends. The new digital technologies, enhancing digital capability, strengthening organizational learning, fostering a positive competitive climate and focusing on the development of employee dynamic capability to enhance their competitive edge. The findings of this research contribute not only to academic inquiry but also to furnishing pertinent decision-making references for relevant departments.

**Ravhudzulo, H., & Eresia-Eke, C. (2024)** examined to illuminate the dynamics underpinning the virtual workplace, offering insights to inform effective strategies for optimizing employee performance in the evolving work landscape of the South African ICT sector. The population for this research is employees working in South Africa's ICT sector. The data collected from 478 respondents was analysed through structural equation modeling. The results shows direct relationships among the constructs. Employee engagement is positively associated with employee performance and telecommuting propensity. However, the research found no relationship between telecommuting propensity and employee performance. The research findings proposed that the studied employees working in the South African ICT sector exhibit heightened engagement and performance when telecommuting, despite telecommuting propensity not being a direct determinant of performance. These insights offer valuable implications for organisational strategies and practices to foster employee engagement, productivity and overall effectiveness in the evolving work landscape.

**Chai, M., Hooi-Ten Wong, D., & Yuan, M. (2026)** analyzed the impact of employee digital competence and financial technology on employee performance in enterprises. Data were collected from China's A-share listed companies covering the period from 2009 to 2023. The research employed a fixed-effects regression model to analyse the relationships among employee digital competence, financial technology and employee performance. The results showed that employee digital competence significantly enhanced employee performance, while financial technology also positively influenced employee performance. The findings also revealed heterogeneous effects between high-tech and non-high-tech enterprises for both digital competence and financial technology. The research highlights the importance of strengthening employees' digital competence and leveraging financial technology to improve performance in digitally enabled enterprises.

**Eng, I., Aboagye, E., Bergsten, E. L., & Strömberg, A. (2025)** examined how different forms and intensities of workplace control influence employee performance and trust in employers, particularly in the context of remote work and increasing algorithmic monitoring. The research used primary data collected through an online experiment involving a real-effort task and a trust game, in which participants were exposed to different sources and levels of workplace control. The researchers adopted a quantitative experimental research design to compare the effects of human and algorithmic control on worker performance and trusting behavior. The results revealed that human control increased worker performance, while higher control intensity did not produce detrimental effects on performance. However, human control reduced the likelihood of employees placing trust in employers, whereas exploratory findings indicated that algorithmic control was perceived relatively more positively. The research concluded that automated workplace control does not negatively affect employee performance, although it does not generate the positive performance effects associated with human control. These findings demonstrate that digital monitoring and automated workplace control are important factors to consider when examining employee performance in the digital workplace.

**Schaetzle, A., Mehler, M., & Buxmann, P. (2025)** investigated digital workplace environments continue to transform how employees work, the question arises of what defines a high-quality digital workplace and how its quality effects employee loyalty, task performance and overall business performance. Previous research on the quality factors of digital workplaces remains limited. The data were collected from qualitative research with focus group interviews. Quantitative research (N = 201) assesses the quality of the digital workplace in terms of employee performance and well-being. The results reveal a significant positive effect of expected well-being in the digital workplace on task performance, employee loyalty and business performance, while the effect of actual performance in the digital workplace on these constructs was not significant. The findings highlight the importance of prioritizing employee well-being when implementing digital workplace solutions.

**Udayakumar, H. M., & Nazeer, I. (2025)** investigated the impact of the digital workplace on employees' efficiency and their usage of digital tools in the IT industry. A structured questionnaire was used to collect data from 500 IT employees of the 15 IT software companies in Bengaluru City. The mean, percentage, multiple correlation and multiple regression analysis have been adopted to analyse the collected data. The results revealed that respondents were good at using communication and collaboration tools. Employees have expressed comparatively less skill levels in using software technology and mobility tools. The research found that there is a significant impact of the digital workplace on employees' efficiency and a strong and significant relationship between the employees' efficiency-related attributes with the overall digital skill level. The major attributes that impact well towards the "overall level that the digital tools help to work effectively in the IT industry." This research would help to implement digital workplace strategies for effective individual and organisational performance.

#### **OBJECTIVE OF THE STUDY**

- ❖ To identify the key determinants influencing employee performance in digitally enabled workplaces.
- ❖ To evaluate the role of technological competence in shaping employee performance.
- ❖ To assess the influence of digital technology on employee productivity and work effectiveness.
- ❖ To analyse the role of digital communication, collaboration and workplace flexibility in shaping employee performance.
- ❖ To identify the major challenges affecting employee performance in digital work environments and provide appropriate recommendations for improvement.

#### **SCOPE OF THE STUDY**

- ❖ The scope of the study is confined to employees working in digitally enabled workplace environments and focuses on examining the factors that influence employee performance through technological competence, digital competence, digital technology, digital communication, collaboration and workplace flexibility.
- ❖ The study considers how employees use digital tools and platforms to perform their responsibilities, communicate, coordinate tasks and adapt to changing work requirements.
- ❖ It also examines variations in employee perceptions based on selected demographic and sociographic characteristics, particularly work experience and work device.
- ❖ The study is limited to the selected respondents and variables and aims to provide insights into how digital workplace practices can support employee productivity, effectiveness and overall organisational performance.

#### RESEARCH METHODOLOGY

**Research Type:** Descriptive Research

**Data Collection**

**Primary Data:** Primary data were gathered from employees working within digitally enabled workplace environments using a structured questionnaire.

**Secondary Data:** Data were collected from existing literature on technological competence, digital communication, workplace flexibility, digital collaboration and employee performance.

**Sampling Type:** Convenience Sampling

**Sampling Universe:** The research encompasses employees engaged in digitally enabled workplaces who utilise digital tools, platforms and systems as part of their day-to-day work responsibilities.

**Sample Size:** 150 respondents.

**Statistical Tools Used:** Percentage Analysis, Descriptive Statistics and One-Way ANOVA.

#### LIMITATIONS OF THE STUDY

- The research is limited to selected digital workplace factors and does not cover all possible determinants of employee performance.
- The research provides a context-specific assessment of employee performance and may not represent all types of digitally enabled workplaces.
- The continuous advancement of digital technologies may cause workplace practices and employee requirements to change over time.

#### DATA ANALYSIS AND INTERPRETATION

##### Demographic Variables of the Employees

| Demographic Variables     | Particulars                | Frequency | Percent |
|---------------------------|----------------------------|-----------|---------|
| Age                       | Below 25 years             | 16        | 10.7    |
|                           | 25-29 years                | 31        | 20.7    |
|                           | 30-34 years                | 29        | 19.3    |
|                           | 35-39 years                | 52        | 34.7    |
|                           | Above 40 years             | 22        | 14.7    |
| Gender                    | Male                       | 91        | 60.7    |
|                           | Female                     | 59        | 39.3    |
| Educational Qualification | Higher Secondary           | 41        | 27.3    |
|                           | Diploma                    | 38        | 25.3    |
|                           | Undergraduate Degree       | 31        | 20.7    |
|                           | Postgraduate Degree        | 23        | 15.3    |
|                           | Professional Qualification | 17        | 11.3    |
| Monthly Personal Income   | Below Rs. 10,000           | 13        | 8.7     |
|                           | Rs. 10,001-Rs. 20,000      | 37        | 24.7    |
|                           | Rs. 20,001-Rs. 30,000      | 44        | 29.3    |
|                           | Rs. 30,001-Rs. 40,000      | 31        | 20.7    |
|                           | Above Rs. 40,000           | 25        | 16.7    |
| Work Experience           | Below 2 years              | 42        | 28.0    |
|                           | 2-5 years                  | 36        | 24.0    |
|                           | 6-10 years                 | 24        | 16.0    |
|                           | 11-15 years                | 31        | 20.7    |
|                           | Above 15 years             | 17        | 11.3    |
|                           | Total                      | 150       | 100.0   |

Among the 150 employees, the age distribution indicates that 34.7% belong to the 35-39 years, 20.7% are between 25-29 years, 19.3% are in the 30-34 years, 14.7% are above 40 years and 10.7% are below 25 years. The gender profile shows that 60.7% male and 39.3% female. The analysis of educational qualifications highlights that 27.3% have completed higher secondary education, 25.3% hold a diploma, 20.7% possess an undergraduate degree, 15.3% have a postgraduate degree and 11.3% hold a professional qualification. The distribution of employees according to their income reveals that 8.7% earn below Rs. 10,000, 24.7% earning between Rs. 10,001- Rs. 20,000, 29.3% earn between Rs. 20,001- Rs. 30,000, 20.7% earned between Rs. 30,001-Rs. 40,000 and 16.7% earn above Rs. 40,000. The composition of the workforce across career-tenure groups indicates that 28% have accumulated below 2 years, 24% have 2-5 years, 16% have 6-10 years, 20.7% have 11-15 years and 11.3% have more than 15 years of experience.

#### Sociographic Variables of the Employees

| Sociographic Variables | Particulars             | Frequency | Percent |
|------------------------|-------------------------|-----------|---------|
| Digital Tenure         | Less than 1 year        | 23        | 15.3    |
|                        | 1-3 years               | 29        | 19.3    |
|                        | 4-6 years               | 34        | 22.7    |
|                        | 7-10 years              | 41        | 27.3    |
|                        | More than 10 years      | 23        | 15.3    |
| Work Device            | Desktop                 | 38        | 25.3    |
|                        | Laptop                  | 42        | 28.0    |
|                        | Tablet                  | 27        | 18.0    |
|                        | Smartphone              | 31        | 20.7    |
|                        | Multiple Devices        | 12        | 8.0     |
| Tech Upgrade           | Never                   | 19        | 12.7    |
|                        | Once in 3-5 years       | 48        | 32.0    |
|                        | Once in 2-3 years       | 28        | 18.7    |
|                        | Annually                | 33        | 22.0    |
|                        | More than Once a Year   | 22        | 14.7    |
| Work Mode              | Completely On-Site      | 13        | 8.7     |
|                        | Primarily On-Site       | 36        | 24.0    |
|                        | Hybrid Work Arrangement | 31        | 20.7    |
|                        | Primarily Remote        | 43        | 28.7    |
|                        | Flexible Location       | 27        | 18.0    |
| Support Source         | Supervisor              | 17        | 11.3    |
|                        | IT Team                 | 47        | 31.3    |
|                        | Colleagues              | 29        | 19.3    |
|                        | Self-Learning           | 33        | 22.0    |
|                        | External Support        | 24        | 16.0    |
|                        | Total                   | 150       | 100.0   |

Among the 150 respondents, the digital tenure profile indicates that 15.3% have less than 1 year, 19.3% have 1-3 years, 22.7% have 4-6 years, 27.3% have 7-10 years and 15.3% have more than 10 years of digital work experience. The workplace technology preference profile shows that 25.3% primarily use desktops, 28% use laptops, 18% use tablets, 20.7% use smart phones and 8% use multiple devices. The technological updating behaviour reveals that 12.7% never upgrade their technology, 32% upgrade once in 3-5 years, 18.7% upgrade once in 2-3 years, 22% upgrade annually and 14.7% upgrade more than once a year. The employee workplace configuration demonstrates that 8.7% work completely on-site, 24% work primarily on-site, 20.7% work under a hybrid work arrangement, 28.7% work primarily remotely and 18% work under a flexible location arrangement. The employee technical support profile reflects that 11.3% primarily depend on supervisors, 31.3% seek support from the IT team, 19.3% rely on colleagues, 22% depend on self-learning and 16% obtain external support.

#### Descriptive Statistics for the Impact of Technological Competence on Employee Performance

| Statements                                                                         | N   | Mean | SD    |
|------------------------------------------------------------------------------------|-----|------|-------|
| Digital proficiency enhances the effective execution of assigned responsibilities. | 150 | 3.00 | 1.366 |
| Adaptability to emerging technologies sustains work efficiency.                    | 150 | 2.98 | 1.363 |

|                                                                                        |     |      |       |
|----------------------------------------------------------------------------------------|-----|------|-------|
| The effective application of technology strengthens my overall workplace productivity. | 150 | 3.00 | 1.366 |
| Digital process integration strengthens operational coordination within the workplace. | 150 | 2.98 | 1.363 |
| Technology-driven innovation enhances problem-solving efficiency.                      | 150 | 3.00 | 1.366 |
| Valid N (list wise)                                                                    | 150 |      |       |

The above table indicates that the employees are neutral towards digital proficiency and enhances the effective execution of assigned responsibilities (3.00), effective application of technology strengthens their overall workplace productivity (3.00) and technology-driven innovation enhances problem-solving efficiency (3.00). The employees disagree with adaptability to emerging technologies that sustains work efficiency (2.98) and digital process integration strengthens operational coordination within the workplace (2.98).

#### **Descriptive Statistics for the Role of Digital Competence in Employee Performance**

| Statements                                                                                 | N   | Mean | SD    |
|--------------------------------------------------------------------------------------------|-----|------|-------|
| Digital integration improves work effectiveness.                                           | 150 | 2.98 | 1.363 |
| Technological versatility supports varied work requirements.                               | 150 | 3.00 | 1.366 |
| Digital problem-solving ability assists in resolving technology-related work difficulties. | 150 | 3.13 | 1.343 |
| Digital learning agility supports continuous development.                                  | 150 | 3.07 | 1.357 |
| Virtual collaboration competence strengthens workplace interaction.                        | 150 | 3.08 | 1.354 |
| Valid N (list wise)                                                                        | 150 |      |       |

The above table indicates that the employees disagree with digital integration improving work effectiveness (2.98). The employees are neutral towards technological versatility supporting varied work requirements (3.00). The employees agree with digital problem-solving ability assists in resolving technology-related work difficulties (3.13), learning agility supports continuous development (3.07) and virtual collaboration competence strengthens workplace interaction (3.08).

#### **Descriptive Statistics for the Influence of Digital Technology on Employee Productivity and Work Effectiveness**

| Statements                                                                                              | N   | Mean | SD    |
|---------------------------------------------------------------------------------------------------------|-----|------|-------|
| Digital technology accelerates task completion through streamlined work processes.                      | 150 | 3.07 | 1.364 |
| Digital tools enhance the precision of routine work activities.                                         | 150 | 3.58 | 1.302 |
| Technology-enabled systems support consistent work performance by minimizing operational interruptions. | 150 | 3.61 | 1.351 |
| Digital technology facilitates informed decision-making in workplace activities.                        | 150 | 3.48 | 1.246 |
| Digital applications enable effective utilization of organizational resources.                          | 150 | 3.47 | 1.283 |
| Valid N (list wise)                                                                                     | 150 |      |       |

The above table indicates that the employees agree with digital technology accelerating task completion through streamlined work processes (3.07), tools enhance the precision of routine work activities (3.58), technology-enabled systems support consistent work performance by minimizing operational interruptions (3.61), technology facilitates informed decision-making in workplace activities (3.48) and applications enable effective utilization of organizational resources (3.47).

#### **Descriptive Statistics for the Digital Communication, Collaboration and Workplace Flexibility in Employee Performance**

| Statements                                                                                  | N   | Mean | SD    |
|---------------------------------------------------------------------------------------------|-----|------|-------|
| Digital communication facilitates timely coordination of work-related activities.           | 150 | 3.59 | 1.222 |
| Collaboration strengthens collective accountability.                                        | 150 | 3.58 | 1.265 |
| Teamwork promotes constructive exchange of knowledge among employees.                       | 150 | 3.53 | 1.339 |
| Workplace flexibility enhances schedule autonomy.                                           | 150 | 3.57 | 1.287 |
| Flexible work arrangements improve employees' responsiveness to changing work requirements. | 150 | 3.53 | 1.359 |
| Valid N (list wise)                                                                         | 150 |      |       |

The above table indicates that the employees agree with digital communication facilitates timely coordination of work-related activities (3.59), collaboration strengthens collective accountability

(3.58), teamwork promotes constructive exchange of knowledge among employees (3.53), workplace flexibility enhances schedule autonomy (3.57) and flexible work arrangements improve employees' responsiveness to changing work requirements (3.53).

#### Comparison between the Demographic Variables (Work Experience) of the Employees and Various Dimensions

Ho1: There is a substantial link between the demographic variables (work experience) of the employees and various dimensions.

| Dimensions                                                                             | Work Experience | N   | Mean | SD    | F     | Sig   |
|----------------------------------------------------------------------------------------|-----------------|-----|------|-------|-------|-------|
| Impact of Technological Competence on Employee Performance                             | Below 2 years   | 42  | 2.78 | 1.117 | 6.422 | 0.000 |
|                                                                                        | 2-5 years       | 36  | 2.57 | 0.772 |       |       |
|                                                                                        | 6-10 years      | 24  | 3.08 | 0.817 |       |       |
|                                                                                        | 11-15 years     | 31  | 3.31 | 0.813 |       |       |
|                                                                                        | Above 15 years  | 17  | 3.73 | 0.845 |       |       |
|                                                                                        | Total           | 150 | 2.99 | 0.968 |       |       |
| Role of Digital Competence in Employee Performance                                     | Below 2 years   | 42  | 2.92 | 0.754 | 4.216 | 0.003 |
|                                                                                        | 2-5 years       | 36  | 2.80 | 0.599 |       |       |
|                                                                                        | 6-10 years      | 24  | 3.19 | 0.502 |       |       |
|                                                                                        | 11-15 years     | 31  | 3.21 | 0.589 |       |       |
|                                                                                        | Above 15 years  | 17  | 3.42 | 0.565 |       |       |
|                                                                                        | Total           | 150 | 3.05 | 0.654 |       |       |
| Influence of Digital Technology on Employee Productivity and Work Effectiveness        | Below 2 years   | 42  | 3.39 | 0.992 | 0.816 | 0.517 |
|                                                                                        | 2-5 years       | 36  | 3.57 | 0.874 |       |       |
|                                                                                        | 6-10 years      | 24  | 3.62 | 0.934 |       |       |
|                                                                                        | 11-15 years     | 31  | 3.36 | 0.926 |       |       |
|                                                                                        | Above 15 years  | 17  | 3.18 | 0.932 |       |       |
|                                                                                        | Total           | 150 | 3.44 | 0.933 |       |       |
| Digital Communication, Collaboration and Workplace Flexibility in Employee Performance | Below 2 years   | 42  | 3.55 | 1.184 | 0.499 | 0.737 |
|                                                                                        | 2-5 years       | 36  | 3.74 | 1.029 |       |       |
|                                                                                        | 6-10 years      | 24  | 3.51 | 1.086 |       |       |
|                                                                                        | 11-15 years     | 31  | 3.56 | 1.189 |       |       |
|                                                                                        | Above 15 years  | 17  | 3.28 | 1.109 |       |       |
|                                                                                        | Total           | 150 | 3.56 | 1.118 |       |       |

There is no substantial link between key determinants of employee performance in digital workplaces (0.000), role of digital competence in employee performance (0.003) and work experience of the employees. There is a substantial link between influence of digital technology on employee productivity and work effectiveness (0.517), digital communication, collaboration and workplace flexibility in employee performance (0.737) and work experience of the employees.

#### Key Determinants of Employee Performance in Digital Workplaces

The results indicate that employees with above 15 years of digital work tenure demonstrated the highest level of agreement (3.73), whereas those with 2-5 years of digital work tenure recorded the lowest level of agreement (2.57).

#### Role of Digital Competence in Employee Performance

The analysis shows that employees with above 15 years of digital work tenure exhibited the highest level of agreement (3.42), whereas employees with 2-5 years of digital work tenure registered the lowest level of agreement (2.80).

#### Comparison between the Sociographic Variables (Work Device) of the Employees and Various Dimensions

Ho2: There is a substantial link between the sociographic variables (work device) of the employees and various dimensions.

| Dimensions                                                 | Work Device      | N   | Mean | SD    | F     | Sig   |
|------------------------------------------------------------|------------------|-----|------|-------|-------|-------|
| Impact of Technological Competence on Employee Performance | Desktop          | 38  | 3.37 | 0.908 | 2.102 | 0.084 |
|                                                            | Laptop           | 42  | 2.80 | 1.007 |       |       |
|                                                            | Tablet           | 27  | 2.91 | 0.827 |       |       |
|                                                            | Smartphone       | 31  | 2.94 | 1.024 |       |       |
|                                                            | Multiple Devices | 12  | 2.80 | 0.980 |       |       |
|                                                            | Total            | 150 | 2.99 | 0.968 |       |       |
|                                                            | Desktop          | 38  | 3.08 | 0.670 | 1.036 | 0.391 |

|                                                                                        |                  |     |      |       |       |       |
|----------------------------------------------------------------------------------------|------------------|-----|------|-------|-------|-------|
| Role of Digital Competence in Employee Performance                                     | Laptop           | 42  | 3.10 | 0.680 |       |       |
|                                                                                        | Tablet           | 27  | 3.19 | 0.631 |       |       |
|                                                                                        | Smartphone       | 31  | 2.93 | 0.664 |       |       |
|                                                                                        | Multiple Devices | 12  | 2.82 | 0.508 |       |       |
|                                                                                        | Total            | 150 | 3.05 | 0.654 |       |       |
| Influence of Digital Technology on Employee Productivity and Work Effectiveness        | Desktop          | 38  | 3.24 | 0.973 | 2.356 | 0.056 |
|                                                                                        | Laptop           | 42  | 3.46 | 0.967 |       |       |
|                                                                                        | Tablet           | 27  | 3.89 | 0.883 |       |       |
|                                                                                        | Smartphone       | 31  | 3.27 | 0.876 |       |       |
|                                                                                        | Multiple Devices | 12  | 3.45 | 0.678 |       |       |
|                                                                                        | Total            | 150 | 3.44 | 0.933 |       |       |
| Digital Communication, Collaboration and Workplace Flexibility in Employee Performance | Desktop          | 38  | 3.52 | 1.127 | 1.701 | 0.153 |
|                                                                                        | Laptop           | 42  | 3.50 | 1.170 |       |       |
|                                                                                        | Tablet           | 27  | 4.04 | 0.996 |       |       |
|                                                                                        | Smartphone       | 31  | 3.34 | 1.088 |       |       |
|                                                                                        | Multiple Devices | 12  | 3.40 | 1.109 |       |       |
|                                                                                        | Total            | 150 | 3.56 | 1.118 |       |       |

There is a substantial link between impact of technological competence on employee performance (0.084), role of digital competence in employee performance (0.391), influence of digital technology on employee productivity and work effectiveness (0.056), digital communication, collaboration and workplace flexibility in employee performance (0.153) and work device of the employees.

#### FINDINGS

##### Demographic profile of the Respondents

Most of the employees belonged to the age group of 35-39 years. Most of the respondents were male. A majority of the employees have completed higher secondary education. Most of the employees have a monthly personal income of Rs. 20,001-Rs. 30,000. Most of the employees have below 2 years of work experience.

##### Sociographic Profile of the Respondents

Most of the employees have 7-10 years of digital tenure. Most of the employees primarily use laptops as their work device. Most of the employees upgrade their technology once in 3-5 years. Most of the employees primarily work remotely. Most of the employees rely on the IT team for technical support.

#### SUGGESTIONS

- ❖ Organisations should conduct regular digital skill development programmes to strengthen employees' technological competence.
- ❖ Management may introduce flexible work arrangements to further enhance employee performance and engagement.
- ❖ Companies can encourage self-learning initiatives alongside structured IT support to improve digital problem-solving abilities.
- ❖ Organisations might consider periodic technology upgrades to use employees stay aligned with evolving digital tools.
- ❖ Firms should strengthen digital communication and collaboration platforms to sustain workplace productivity.
- ❖ Management can provide targeted training for employees with limited digital tenure to bridge performance gaps.
- ❖ Organisations may implement mentorship programmes pairing experienced employees with newer staff to accelerate digital adaptability.

#### CONCLUSION

The research concludes that technological competence represents a significant factor in shaping employee performance in the digital workplace, particularly through digital proficiency, adaptability to emerging technologies, effective application of technology and technology-driven problem-solving. Employees who demonstrate stronger technological competence and greater ease in navigating digital systems are more likely to sustain consistent work efficiency and productivity. These findings indicate that employees assess their digital work environment beyond the mere availability of tools and place considerable emphasis on their own adaptability, learning agility and confidence in using technology to fulfill their responsibilities.

The findings further establish that digital communication and collaboration serve as an important connecting dimension between technological competence and employee performance. Effective communication channels and collaborative platforms contribute to greater coordination and

collective accountability among employees, while workplace flexibility encourages employees to manage their schedules and responsibilities more efficiently. However, variations across work experience indicate those employees' responses are not uniform, suggesting that tenure and accumulated digital exposure influence the extent to which technological competence translates into enhanced performance outcomes.

Overall, the research reveals that technological competence, digital competence, communication, collaboration and workplace flexibility are essential considerations for strengthening employee performance in digitally enabled organizations. Employees, who possess strong digital adaptability, engage in effective communication and benefit from flexible work arrangements are better positioned to sustain productivity and contribute to organizational effectiveness. The findings therefore emphasize the importance of continuous digital skill development and supportive workplace practices and provide a foundation for future research examining employee performance across diverse organizational contexts, industries and digital work environments.

#### BIBLIOGRAPHY

1. Dao, T. H. A., Sisavath, C., Bui, H. T. T., Bui, T. Q., & Le, T. H. (2025). Digital workforce training, employee motivation, job satisfaction, digital behavior as determinants of employee performance: Empirical research from Vietnam. *Sage Open*, 15(4), 21582440251395698.
2. Eftimov, L., Cvetkoska, V., & Kitanovikj, B. (2025). Exploring the factors influencing productivity in the digital workplace. In *Humanizing the digital workspace: Creativity, innovation and leadership in the age of technology* (pp. 221-239). Cham: Springer Nature Switzerland.
3. Wang, G., Niu, Y., Mansor, Z. D., Leong, Y. C., & Yan, Z. (2024). Unlocking digital potential: Exploring the drivers of employee dynamic capability on employee digital performance in Chinese SMEs-moderation effect of competitive climate. *Heliyon*, 10(4).
4. Ravhudzulo, H., & Eresia-Eke, C. (2024). Employee engagement, telecommuting propensity and employee performance in the virtual workplace. *Cogent Business & Management*, 11(1), 2422559.
5. Chai, M., Hooi-Ten Wong, D., & Yuan, M. (2026). Employee digital competence, financial technology and enhancement of employee performance in enterprises. *Finance Research Letters*, 109993.
6. Eng, I., Aboagye, E., Bergsten, E. L., & Strömberg, A. (2025). Balancing employee flexibility and organizational performance: implications for innovation, productivity and company attractiveness in SMEs. *Frontiers in psychology*, 16, 1518284.
7. Schaetzle, A., Mehler, M., & Buxmann, P. (2025). High-Quality Digital Workplace: Effects on Employee Loyalty, Performance and Business Success.
8. Udayakumar, H. M., & Nazeer, I. (2025). Impact of digital workplace on employees' efficiency and their usage of digital tools in the IT industry. *International Journal of Business Innovation and Research*, 38(4), 471-487.

#### How do I cite this article?

Dr. B. Karthikeyan et al, Examining the factors affecting employee performance in the digital workplace in Coimbatore City, Excel International Journal of Technology, Engineering and Management, 2026; Volume -13, Issue-3\_Page\_247-255.

DOI Link: <https://doi.org/10.64971/j.cph.eijtem.v13.i3.22.2026>



This is an open access article under the CC BY-NC-ND license  
(<http://creativecommons.org/licenses/by-nc-nd/4.0/>)