Digital Behavior and Impact on Employee Performance: Evidence from Indonesia

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Abstract: The digital divide makes it difficult for companies to find workers with digital skills. Usually occurs in developing countries, including Indonesia. Therefore, analyzing and investigating digital human resource behavior and performance is necessary. This research aims to investigate and analyze digital behavior and employee performance. The study used an explanatory survey method, carried out from March 2023 – May 2023, at a state company owned by the Indonesian government. The total sample is 149 employees. Data collection uses a questionnaire converted into G-form and distributed with the help of social media. The questionnaire was tested for validity and reliability. Data analysis uses descriptive analysis, factor analysis, and multiple regression. The research results found three dimensions/sub-variables of digital behavior, and we named them digital knowledge & skills, availability of digital technology, and adoption of digital technology innovation. These three dimensions positively impact employee performance, especially the performance of employees belonging to Generation Z. This research also proves that digital behavior in the workplace can be developed if there is support from leadership, availability of technology, and increasing adoption by learning from each other among employees. In the future, this research needs to be continued from the perspective of leaders and consumers.

Keywords: digital knowledge & skills, availability of digital technology, adoption of digital technology innovation, generation Z, developing countries

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1. Introduction

The high digital divide is one of the crucial challenges in the global economy. This phenomenon occurs when the people of a country have not been able to adopt and utilize digital technology optimally, so digital progress has not reached adequate development. The results of the 2022 IMD World Digital Competitiveness Ranking survey (IMD, 2022) show that Indonesia's global digital competitiveness ranking is ranked 51st out of 63 countries worldwide. Overall, Indonesia still has a low digital competitiveness ranking.

In addition to the global digital competitiveness ranking, Venturest (2022) survey results highlight companies' difficulty in finding and recruiting employees with digital skills. Based on survey data, 52.1% of companies in Indonesia are challenged with finding workers who have digital skills. In contrast, only 7% of companies find it easy to find employees who have digital skills.

Theoretically, company actions can also influence employee behavior, so many companies use digital technology to achieve company goals. Applying digital technology in companies will result in employees experiencing changes in behavior when using digital technology. However, not all employees can adapt to these changes. If a company does not switch to the digital era in its organizational activities, it will face challenges in terms of efficiency and performance. This is supported by Favoretto et al. (2022) who state that from an economic perspective, digitalization can be seen as a means of increasing the internal efficiency of a company while improving its performance through new ways of creating, delivering, and capturing value for customers. Several study results have also proven that the use of digital technology will increase the success and competitiveness of companies (Chaniago, 2023; Malaquias & Malaquias, 2022; Manríquez et al., 2022).

The problem is how digital technology becomes a habit for employees and what should be done, especially in developing countries. For this reason, research is needed on digital behavior that is related to performance.

The results of online exploration (April 2023) regarding research on organizational behavior and organizational culture have been carried out by researchers from various points of view. However, no research has been found that focuses on employees' digital behavior. As far as we know, this is the first study of digital behavior.

We conducted a pre-survey of an Indonesian state-owned company in Bandung City, Indonesia. Our pre-survey results concluded that many employees are still hampered by using digital technology. This is also experienced by young people belonging to Generation Z. Generation Z was born when the Internet and communication technology developed between 1995 and 2012, and they are very dependent on the Internet and gadgets (Hastini et al., 2020). The main actors in digitalization in companies are employees from various generations.

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Therefore, research on digital behavior and employee performance is essential to conduct. There are several reasons: 1. This research aims to investigate employee digital behavior and its relationship with their performance. It will be helpful for company leaders to engineer employees' digital behavior in developing countries; 2. The results of this research contribute to explaining the concept of digital behavior, its dimensions, and indicators for measuring digital behavior; 3. Contribute to showing the relationship between digital behavior and employee performance.

2. Literature review

2.1. Digital behavior

This research used the behavioral theory as a grand theory. Behavioral theory aims to understand and explain why humans act and behave in specific ways. There are various variants of behavioral theory, but we combine two behavioral theories, namely behaviorism and cognitive theory. Behaviorism theory assumes that human behavior can be explained through behavior that can be observed directly. He emphasized the importance of learning through stimulus and response, ignoring internal factors such as thoughts and feelings. This approach focuses on using the laws of learning to change human behavior.

Meanwhile, cognitive theory emphasizes the importance of mental processes, such as perception, thinking, and interpretation, in shaping human behavior. This theory argues that human behavior is influenced by how individuals perceive and give meaning to the world around them. Factors such as individual beliefs, motivation, and goals are important in understanding behavior. Behavior must be identifiable both to the individual himself and to the organization's interests. When behaviors can be identified, organizations know what individuals want. This aims to achieve the desired results or organizational goals through the cooperation of each individual and various variations in their behavior. This means that behavior has a significant impact on directing the course of an organization.

Our research is related to digital behavior and conceptually also requires an understanding of digital. Digital theory refers to a sense of technological and scientific developments. Things previously done manually are automated, and complicated things are becoming simpler, more concise, and increasingly paperless. Meanwhile, according to Li et al. (2021) and Chaniago (2023), digital is related to using information technology, digital hardware, and software to increase the speed and flexibility of company organizational processes. This means that the digital component is related to accelerating the achievement of a company's targets.

The use of digital technology in companies will provide various benefits, for example, increasing the speed of development and launching speed of new products, increasing the flexibility of new businesses, the possibility of faster internationalization, as well as saving tangible and intangible resources (Massa et al., 2023; Pergelova et al., 2019). Besides that, digitalization has hardened the labor market, impacting the quality of work and working conditions (Campos-García, 2022). Some digital technologies that are commonly used include the Internet of Things (IoT), Artificial Intelligence (AI), big data, social media, Cloud, email, video conferencing, online platforms, office software, and others.

From the theoretical explanations about behavior and digital that have been explained, we build a definition of digital behavior. Digital behavior is the interaction and response of individuals in the work environment involving digital technology, such as information technology and computers, simplifying complex processes and changing manual activities to be paperless and automatic. Some examples of digital behavior include email use, use of online collaboration tools (Microsoft Teams, Google Workspace, document sharing), data security (using strong passwords, VPN use, reporting cyber incidents), ethics and law, social media, behavior in videos conferences, use of business applications (CSR software, ERP to manage projects), digital training and others.

Digital behavior refers to all forms of individual or group interactions and actions with digital technology in everyday life. Digital behavior includes using digital technology to communicate, search for information, access media, and contribute to digital social networks. Centobelli et al. (2022)-stated that digital behavior is a strategy companies use to carry out various tasks. In this case, employees have awareness of the use of digital technology and the ability to manage it. From the literature study, we conclude that there are several indicators of digital behavior:

1. Frequency of technology use. Frequency of technology use assesses how often a person uses digital technology in daily activities. Examining its relationship to the frequency of technology use is very important, namely, from no use to excessive use (Wolniewicz et al., 2020). Besides that, Stockwell et al. (2019) have also proven that the frequency of use of digital technology will make people more active and encourage change.

2. Ability to use technology. Technology proficiency assesses how well a person uses digital technology and understands how it works. According to Mahmud and Wong (2022), technological capabilities are a crucial factor in completing tasks and solving problems in the digital age. Park (2019) and Nugraha (2020) remind us that applying digital technology knowledge is necessary in a world that continues to develop. Meanwhile, Rexhepi Mahmutaj and Jusufi (2023)emphasized the vital role of digital skills in improving company performance.

3. Dependence on technology. Dependence on technology assesses how much digital technology influences a person's life and how often it is used as a source of information. This follows research from Nasirpouri Shadbad and Biros (2022), and Pordelan et al. (2022), which states that technological dependence is defined as the habit of employees who depend on computer-based technology to complete their work and higher technological dependence is also related to computers. This means a person's dependence on technology in routine work will increase.

4. Attitude towards technology. Attitudes toward technology assess how people view and respond to digital technology daily. Given the prevalence of technology in the workplace, understanding employee attitudes toward technology is critical (Guo et al., 2023; Malaquias & Malaquias, 2022). This component guides how insight and skills use digital technology (Park, 2019). People who understand digital technology will have confidence in adopting and using digital technology (Cetindamar et al., 2024; Sawrikar & Mote, 2022).

2.2 Employee performance

Employee performance theory explains how to understand individuals to achieve specific results. This theory tries to understand what makes individuals, groups, and organizations effective in achieving their goals. There are many theories about performance, such as expectancy theory, reward theory, needs theory, action ratio theory, and others. We are looking for a more appropriate theory to use in this research.

The research we use uses rational action theory from Edwin A. Locke, an American industrial and organizational psychologist, and Gary P. Latham. This theory emphasizes comparing the effort expended and the results that will be obtained. Someone will be motivated if they believe the effort is commensurate with the results. This theory is based on individual logic in achieving performance.

Employee performance is defined as the accumulation of ideas and abilities used in carrying out certain work to produce various outputs by existing provisions of the organization (Andri R et al., 2021; Sari et al., 2020; Widodo & Yandi, 2022). Employee performance is vital in achieving organizational success because individual performance significantly contributes to overall group performance. This group performance plays a role in achieving common goals in an organization and ultimately reflects the general level of organizational performance.

In principle, employee performance assesses individual work performance in achieving results by predetermined goals, policies, or plans. Employee performance can measure employee contributions to the company's progress (Sari et al., 2020; Widodo & Yandi, 2022). Therefore, it is necessary to know the individual performance of employees. Employee performance achievement is determined by the extent to which organizational goals are achieved and the extent of conformity in carrying out tasks or work. Therefore, successful performance can differ from one organization to another, depending on the characteristics and type of each organization. In the context of "employee performance," it refers to an employee's effectiveness and efficiency in carrying out his responsibilities. This includes multiple aspects such as quantity and quality of work, productivity, time, and compliance with company policies and procedures.

Several studies show that measuring employee performance is done through several aspects, such as achieving company goals, quality and quantity of work, and use of time (Riyanto et al., 2021; Widodo & Yandi, 2022; Yan et al., 2020) such as:

1. Achievement of company goals. Achieving company goals is a form of human behavior related to a person's desires and skills. Employee performance assessment considers employee skills to attain organizational goals, including service and increasing profits. Everyone can complete tasks by achieving company targets and goals optimally. Ugoani (2020) says that performance explains a person's actions, results, and behavior to achieve organizational goals. Performance explains individual actions to achieve organizational goals (Annosi et al., 2020).
2. Quality of work. Work quality is related to the results obtained by employees in carrying out their duties at the company. Quality of work reflects the accuracy, neatness, and relevance of work results according to established standards. Work quality is a process where the organization recognizes the excellence and skills of employees in completing their tasks and responsibilities (Andri R et al., 2021).
3. Quantity of work. Job quantity refers to the amount of work obtained under normal conditions. This is related to the situations faced while working and the workload. The quantity of work can be seen from the amount produced and compared with the targets achieved. Work quantity is the work results an employee performs in quantity and quality (Riyanto et al., 2021; Sari et al., 2020).
4. Punctuality. Employee performance can also be assessed by their ability to complete work according to the specified deadline to achieve the set goals (Yan et al., 2020). Every employee is expected to be able to use time efficiently, come to work on time, try to complete work according to company policy, and start work according to a predetermined schedule. This is supported by research by Chewe and Taylor (2021), which states that punctuality and performance are positively correlated, meaning that as punctuality increases, employee performance also increases.

As existing references indicate, assessing individual performance relies significantly on digital behavior, which is pivotal in determining success. The better a person's digital behavior, the higher their performance. The experience and processes carried out by an employee will contribute to achieving performance. This is an essential step in achieving the goals set by the company. Satisfactory digital behavior will impact acceleration in various aspects of business, ultimately supporting the sustainability of the company's business.

2.3 Relationship between digital behavior and employee performance

Digital technologies, such as the Internet, email, smartphones, and social media, have improved employee performance by enabling fast access to information, cross-border communication, and work flexibility. Employees can collaborate more efficiently, work from anywhere, and adapt to change quickly. This flexibility and convenience also increase employee satisfaction and productivity, thus contributing positively to overall organizational performance. Several research results in developed countries have proven the benefit of digital technology. For developing countries, recent research results have proven that digital technology is also beneficial and can improve performance, such as research results from:

1. Chatterjee et al. (2023) conducted a study on several Indian companies on the use of digital technology. They found that the dynamic capabilities of the organization have a significant and positive influence on the digital transformation of the workplace and in turn, improve employee performance and organizational performance.

2. Zahoor et al. (2024) conducted research in the United Arab Emirates and explained that organizations need resilient employees. He researched how digitalization is reflected in employee behavior in employee resilience. The results showed that digitalization is positively related to employee resilience. The results of his research also concluded that self-evaluation, digital literacy, and inclusive climate moderate the impact of digital on employee resilience.

3. Haque and Nishat (2022) research conducted research on the garment industry in Bangladesh. Their findings explain the positive impact of digitalization practices of HR methods on employee performance. Their findings show that digital HRM practices such as electronic compensation management, electronic performance management, and electronic careers have a positive impact on employee performance. He suggested that to improve employee and organizational performance, some HRM management procedures be digitized.

4. Ravi and Chelliah (2023) researched company employees in Malaysia and concluded that digitalization has an impact on employee life and affects the transfer of knowledge.

Looking at the results of existing research and literature, it is believed that digital technology is very useful in improving a person's performance and will ultimately improve company performance.

Table 1: Source information

Construct	Source
Digital Behavior	
Frequency of technology use	Stockwell et al. (2019); Wolniewicz et al. (2020)
Ability to use technology	Porat et al. (2018); Rumata and Nugraha (2020); (Park, 2019); Rexhepi Mahmutaj and Jusufi (2023)
Dependence on technology	Nasirpouri Shadbad and Biros (2022); Pordelan et al. (2022)
Attitude towards technology	Guo et al. (2023); Park (2019); Malaquias and Malaquias (2022)
Employee Performance	
Goal achievement	Annosi et al. (2020); Ugoani (2020)
Quality of work	Andri R et al. (2021)
Quantity of work	Sari et al. (2020); Riyanto et al. (2021)
Punctuality	Chewe and Taylor (2021); Yan et al. (2020)

Source: Compilation of literature, 2023

3. Methodology

The research method used is an explanatory survey with a quantitative approach. This method will explain why a phenomenon occurs and confirm it to certain theories to draw comprehensive conclusions (Chaniago et al., 2023). Overall, the research stages are as follows: 1. Identifying research problems, scope, objectives, and research variables and comparing them with the results of other people's research; 2. Conduct a preliminary survey of the research object; 3. Create a theoretical framework based on references and determine the statistical analysis used; 4. Determine the population and sample, and select a sample that can represent the population; 5. Determine the type of survey, in this case using a hybrid approach involving face-to-face and online (via social media, G-form, telephone); 6. Design survey questions clearly and relevantly according to the research objectives; 7. Conduct a trial of the measuring instrument (pilot test) on 30 potential respondents to measure the level of validity of the measuring instrument; 8. Collect data through distributing questionnaires online; 9. Analyze data survey results using descriptive statistical methods, factor analysis, and regression. SPSS software is used to speed up the analysis process. SPSS tests validity, reliability, descriptive analysis, factor analysis, and multiple regression. 10. Prepare a comprehensive report containing findings, interpretations, and implications of research results.

The research was conducted from March 2023 to May 2023 at a state company owned by the Indonesian government. This company is located in Bandung, Indonesia, and its activities are related to maintaining railway facilities. The city of Bandung is one of five large cities in Indonesia. It is a tourist city, trade city, and education city. There are many manufacturing industries around it. The research object consists of the digital behavior and performance of the company's employees. Meanwhile, the company's employee population is 149 people, to overcome the lack of data increased by the bootstrapping method up to 500 respondents. All populations are sampled. Data was collected randomly, using a questionnaire with the help of online media in the form of Google Forms. The social media platforms used to send the questionnaire link were WhatsApp and Instagram. To avoid bias, the following was done: 1. At the beginning of the questionnaire, there was a warning text that said "only to be filled in by relevant/appropriate people"; 2. Respondents were informed that this research was for academic purposes, and were assured that the identities of the participants and related organizations would not be disclosed; 3. Each questionnaire sheet received was checked to see the completeness and correctness of the questionnaire filled in by the respondents.

For data protection, in the preface to the questionnaire, there is a text explaining the "privacy policy for data protection from unauthorized parties" and there is information "only used for academic purposes".

Information about the data protection policy contains the purpose of data collection, reasons for becoming respondents, types of data required, data security, access rights (only researchers and respondents can see the answers), and email that can be contacted by respondents. Data were analyzed using descriptive statistics (average test, frequency) and multiple regression.

Research instruments

The topic of digital behavior continues to be developed by researchers, which is still new. We developed digital technology research instruments referring to nearby theories, some of which come from information technology theory. The digital behavior variable consists of 20 questions, and employee performance consists of eight questions. The question items are on a 1 to 5 Likert scale interpreted from strongly disagree to agree strongly.

Before using the questionnaire, we first conducted a pilot test on 30 similar respondents. The aim is to obtain a valid measuring tool by correlating respondents' answers with the total answers. If the correlation result is > 0.3, the item is valid and can be used as a measuring tool (Chaniago et al., 2023). The validity test results show that all question items correlate > 0.3. This means that the measuring instrument used is valid and can be used for this research. Next, the questionnaire was distributed to respondents online. To overcome research limitations, the solution such as expanding the reach of respondents, using social media Instagram and WhatsApp, collecting data by random sampling, validating data received from respondents, and securing respondent data from unauthorized parties.

A reliability test is carried out to determine if the data collected from participants is appropriate for utilization, provided that if the Cronbach's Alpha value is > 0.7, then the data obtained from respondents is suitable for use to answer research problems. The results of the reliability test show that the Cronbach's Alpha value for the two research variables is > 0.7, meaning that the data obtained from respondents is suitable for use in this research. Next, the collected data is then processed with factor analysis and multiple regression analysis using SPSS version 25 software with the formula:

$$Y= a+b1X1 + b2X2 + b3X3 + Ɛ$$

Notes:

Y=P= total effect on performance

b1-b3 = correlation coefficient of each dimension/sub-variable

X1= digital knowledge and skills (DKS)

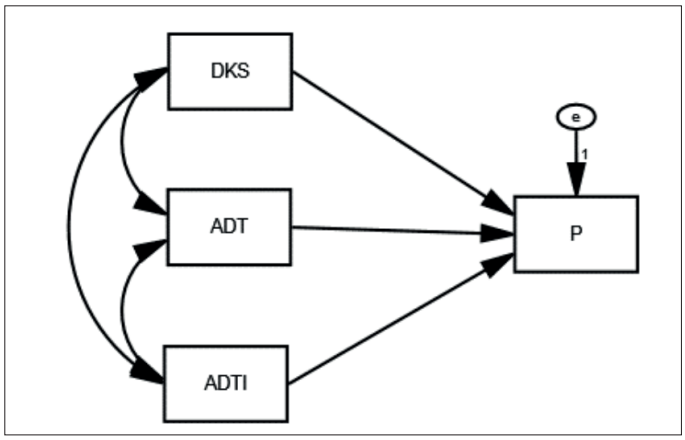
X2 = availability of digital technology (ADT)

X3 = adoption of digital technology innovation (ADTI)

Ɛ = other factors not studied

The relationship of each dimension/sub-variable is assumed to be as in Figure 1:

Figure 1. Design of the relationship between research dimensions and employee performance

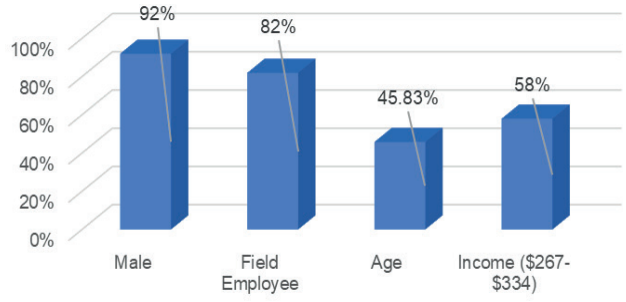


4. Results

Respondent Profile

The number of respondents taken was 149 employees, of which 136 people (91%) were men and 13 people (9%) were women. Most respondents were field employees, 122 people (82%), and the rest were office staff. The dominant age of respondents was in the 20 to 25 year age range, namely 66 people (45.83%), including the millennial generation and Generation Z, as shown by the following picture:

Figure 2. The majority of respondents' demographic data



Gambar 2. Mayoritas data demography responden

Kadir (2022)-stated that technological developments have had a significant influence on the existence of the millennial generation and Generation Z. Mastering and being proficient in dealing with technological problems is an essential part of their behavior and skills. Most of their last education was at the high school level, 93 people (64.58%). The average respondent has an income per month of between USD 267 to 334 (58%). Judging from the length of time employees use mobile phones while working, the majority averages 1 hour, but the average use of mobile phones is 5 hours/day outside of working hours.

Factor Analysis Results

After carrying out a reliability test on the data obtained from respondents, and the results showed an adequate level of reliability with a Cronbach's alpha value > 0.7, we processed the data using factor analysis. The results of factor analysis of 20 question items on the digital behavior variable, grouped into three components (groups), each group consisting of several question items with a Communalities value >0.5, and we named each group with dimensions/sub-variable: digital knowledge & skills, availability digital technology and adoption of digital technology innovation as seen in table 1.

Table 1: Dimension findings from factor analysis results

Variables	Component	Dimension/sub-variable name and definition	Code
Digital Behavior	d6 (Understand DT) d5,d7,d8,d9,d10,d11 (Able to use DT) d15 (following DT progression) d16 (Wisely using DT) d17,d18 (Familiar with DT)	Digital knowledge & skills. Digital knowledge & skills are employees' understanding and ability to use digital technology in everyday life, such as at work, home, …	DKS
	d1 (Works already using DT) d2 (Frequently use email) d4 (online meeting) d13 (Uses existing DT) d14 (Works using the Internet)	Availability of digital technology. Availability of digital technology is the availability of digital technology that is ready to be used by employees. Companies and individual employees can provide these.	ADT
	d12 (Adoption of communication using DT) d19 (DT for paperless) d20 (Online meeting via DT)	Adoption of digital technology innovation. Adoption of digital technology innovation is the acceptance of new things from digital technology	ADTI
Employee Performance	p1 (On Target) p2 (According to procedure) P3 (Work results accepted by superiors) p4 (Results of work according to the rules) p5 (Easily complete workload) p6 (Can handle high workload) p7 (Complete work on time) p8 (Not delaying work)	Performance	P

Note: DT = Digital Technology

Source: Compilation of literature and own computation, 2023

Based on the indicators and questions prepared as well as references, the findings of this research define digital knowledge & skills as the level of understanding and ability of employees to use digital technology in everyday life, such as understanding digital technology at work, the ability and expertise to use it, the ability to follow developments digital technology, wisely using and getting used to using digital technology in everyday life. Therefore, to improve employee performance, encouraging employees to learn to seek knowledge and use digital technology will make them more performant. Meanwhile, the dimension of digital technology availability is defined as the availability of digital technology that is ready for use by employees, such as working using digital technology, frequently using email, meeting online, utilizing existing digital technology, and working using the Internet. The equipment can be provided by the company and individual employees. Meanwhile, the adoption of digital technology innovation is the acceptance of new things from digital technology, such as the adoption of communication using digital technology, digital technology for paperless, and online meetings via digital technology.

For employee performance variables, the factor analysis results are still combined into one component (group). This means that this variable does not need a new symbol or name. Thus, the factor analysis process results found three dimensions in measuring digital behavior: digital knowledge & skills, availability of digital technology, and adoption of digital technology innovation.

Descriptive Analysis Results

After the respondent data is processed and grouped through factor analysis, the data is then processed using descriptive analysis. The results are seen in Table 2 and Table 3.

Table 2: Average respondent answers for digital behavior

Item	Dimensions/Sub-variable	Mean	Std. Deviation
d3	Digital knowledge & skills (DKS)	4.2416	0.97711
d5		4.1678	0.90347
d6		4.1074	0.83941
d7		4.1208	0.85355
d8		4.1678	0.91091
d9		4.1208	0.89225
d10		4.1678	0.88075
d11		4.0940	0.93968
d15		4.0403	0.89954
d16		4.2349	0.88064
d17		4.2953	0.85030
d18		4.2617	0.80030
Average		4.1683	0.8857
d1	Availability of digital technology (ADT)	4.1611	0.94488
d2		3.6846	0.98699
d4		4.0134	0.98630
d13		3.8725	0.98151
d14		3.9597	0.98557
Average		3.9383	0.9770
d12	Adoption of digital technology innovation (ADTI)	3.9262	1.05967
d19		3.4564	1.06849
d20		3.6711	0.90377
Average		3.6846	1.0106
The average of three dimensions / sub-variables		4.0382	0.9577

Source: own computation, 2023

The results of the descriptive analysis of digital knowledge & skills dimensions, as in Table 2, show that the average rating is 4.1682 and is in the "good" category leading to very good. The majority of assessment items in this dimension are considered good. Meanwhile, the dimension of digital technology availability has a mean of 3.9386 and is included in good criteria but leads to sufficient criteria. Meanwhile, for the dimension of adoption of digital technology innovation, respondents gave an approval score of 3.6846, which is considered quite good. If you look for the average of the three existing dimensions, the average respondent's answer is 4.0382.

Table 3: Average respondents' answers for employee performance

Item	Mean	Std. Deviation
p1	4.1477	0.87283
p2	4.2819	0.85488
p3	4.1409	0.88547
p4	4.2349	0.80025
p5	3.9530	0.98183
p6	3.9463	0.90632
p7	4.1208	0.86143
p8	4.1275	0.93208
Average	4.1191	0.8869

Source: own computation, 2023

The results of processing the average employee performance variable show a value of 4.1191, as seen in Table 3. This score includes good criteria and leads to very good. If Table 3 is looked at in more detail, then the respondents also give each question item an agreement score with good criteria. This means that respondents think their performance is within the good criteria range.

Regression Analysis Results

If the results of the factor analysis process group digital behavior into dimensions/sub-variables: digital knowledge & skills, availability of digital technology, and adoption of digital technology innovation, then regression analysis relates each of these dimensions to employee performance. The results of regression processing also provide a P-plot graphic image, which provides information on normally distributed data. Other information from data processing shows that there is no proven correlation between each dimension; each dimension only correlates with employee performance. We present the complete results of multiple regression processing in Table 4, figure 3, and figure 4.

Table 4: The influence of each dimension of digital behavior on employee performance

Dimensions/Sub-variables	Correlation	Coefficient	Partial influence	Total Influence	Sig.
DKS	0.761	0.761	0.579		0.000
ADT	0.448	0.448	0.201		0.000
ADTI	0.097	0.097	0.009		0.012
Simultaneous influence (R^2)				0.789	0.000

Source: own computation, 2023

If the calculation results using SPSS shown in Table 4 are entered into the equation assuming the constant is equal to 0, then the total effect is as follows:

$$Y = a + b1X1 + b2X2 + b3X3 + Ɛ$$

$$= 0 + (0.761x0.761) + (0.448x0.488) + (0.097x0.097)$$

$$= 0.579 + 0.201 + 0.009 = 0.789$$

Graphically, it is depicted in Figure 3 and Figure 4 below:

Figure 3. Design of the relationship between digital behavior and performance

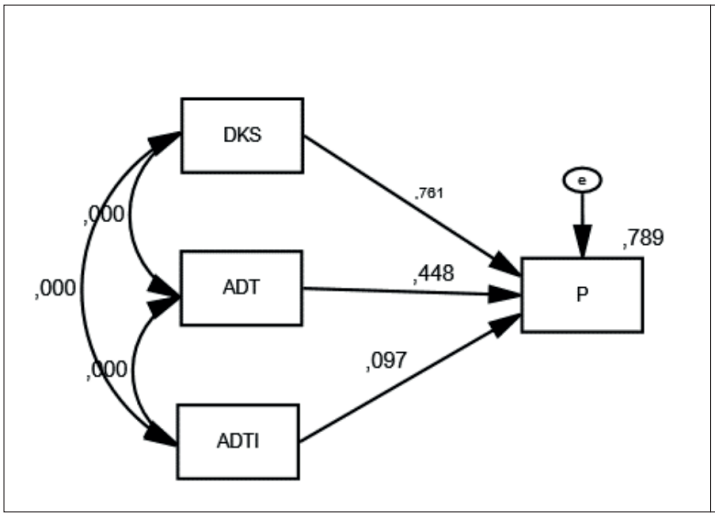
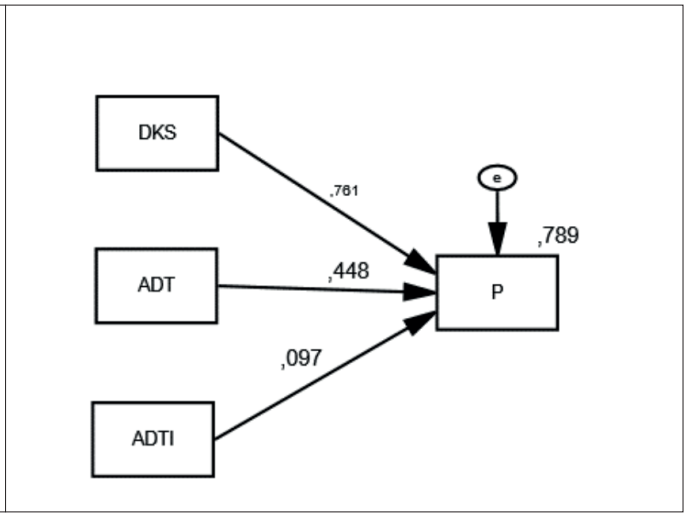


Figure 4. Relationship of digital behavioral dimensions to performance



In Table 4, all regression coefficients for each dimension of digital behavior are positive (see Table 4 column 2) and significance < 0.05. This shows the positive influence of each dimension on employee performance. This means that each dimension of digital behavior partially plays a role and contributes positively to improving employee performance.

The R^2 value of 0.789 reflects the large simultaneous influence of the three dimensions on employee performance. The effect is positive, with a significance level of 0.000. This means that even though these three dimensions are not correlated, they simultaneously positively and significantly impact employee performance. This means that digital knowledge & skills, the availability of digital technology to use, and the ability to adopt employee digital technology innovations will greatly impact employee performance.

5. Discussion

The average respondent's answer about their digital behavior meets good criteria. This is because the majority of respondents' education is from high school, they are young, and they fall into the criteria of Generation Z, who are already familiar with digital technology. This makes it easy for them to adopt digital technology. This means that the demographic level of respondents is related to the ability to adopt the technology. Our observations in the research area show that educated people adopt digital technology more easily.

Even though the employees who were our respondents are in the Z generation range and are used to using digital in their work, it turns out that the average descriptive performance score has a score of 4.1191 and is included in the good criteria. This means that employee performance is not optimal, and several things still need to be improved, such as reducing the use of paper in producing documents, respecting online meetings, not requiring face-to-face communication with superiors, and so on. Barnad (2019) reminded us that implementing paperless in a digital work environment will increase productivity. Therefore, if you want to achieve paperless, digital behavior in work must be carried out by everyone, and to be effective, it requires the support of the highest leadership. Yunga et al. (2023) emphasize the importance of expanding digital reach so that employees can reduce the digital usage gap. These promising results will emerge after proper digital behavior occurs in the workplace.

The Venturest (2022) survey provides information on companies' difficulty finding employees with digital skills. On the one hand, many young people from Generation Z are looking for work and are used to using digital technology. This seems to be a paradox. We can explain that Generation Z is already accustomed to using digital technology only for social media. They tend to be information users, but many have not used it optimally to produce things of high value, such as creating documents with small kilobytes, making quality images but low kilobytes, data security issues, shared data usage, etc. This is under our survey results, and many employees belonging to Generation Z are hampered by using digital technology at work. Obstacles arise due to the lack of software support for the tools used, limited signal network coverage, lack of familiarity with utilizing available devices, and lack of motivation to explore new knowledge related to the rapid evolution of digital technology.

The literature has explained that multiple factors determine employee performance; it can come from internal and external. Our research found a new variable that influences it, namely digital behavior, consisting of dimensions: digital knowledge & skills, availability of digital technology, and adoption of digital technology. Each dimension has also been proven to have an impact on employee performance. Digital behavior positively impacts employee performance; the total influence reaches 78.9%, and other factors outside the research variables influence the remaining 21.1%. These findings complement Puspitadewi (2019) research results, which show that digital competence positively impacts employee work effectiveness. Also, completing the research results of Manríquez et al. (2022), who concluded that mastering information technology will increase a company's competitiveness. The search results on the Internet on digital technology research in developing countries, such as those conducted by Chatterjee et al. (2023) in India who found a positive influence of organizational dynamic capabilities on digital transformation, and Haque and Nishat (2022) in the Bangladeshi garment industry who showed a positive impact of digitalization of HR methods on employee performance. Studies by Zahoor et al. (2024) in the United Arab Emirates, and Ravi and Chelliah (2023) in Malaysia also concluded the benefits of digitalization for employees. When compared to research that has been conducted on digital technology in developing countries, this research adds to understanding by identifying three dimensions that influence performance, namely digital knowledge and skills, availability of digital technology, and adoption of digital technology.

The positive effect of digital behavior on employee performance can be achieved through increasing digital competence, such as employees' ability to think critically in adopting digital technology, an initiative to be creative and innovate using digital technology in carrying out tasks, efforts to go paperless, communication skills using digital technology, ability to work together and collaborate with teams through the use of digital. Tavitiyaman et al. (2022) remind employees that it takes time to become proficient in using technology.

Other findings prove that each dimension partially positively affects employee performance. The partial influence of digital knowledge & skills (DKS) on employee performance is 57.9% significant at 0.000; the influence is most dominant compared to other dimensions. The partial effect of the availability of digital technology (ADT) on employee performance is 20.1% significant at 0.000, and the partial effect of the adoption of digital technology innovation on employee performance is 0.9% significant at 1.2%. These findings provide information that the three dimensions partially determine employee performance. This means that companies need to make these three dimensions the standard for digital employee behavior at work. Digital behavior is a continuation of digitalization. Hesitation in digitalization and implementing digital standards will have a negative impact on performance. Kraus et al. (2019) warn that companies that are slow and hesitant to implement digital technology will endanger their growth.

Besides that, we have proven that no evidence supports that the dimensions of behavioral variables correlate. This means that the three dimensions only partially impact employee performance, as seen in Figure 3. The dominant influence of digital knowledge and skills on employee performance illustrates that this dimension is the main dimension of digital behavior. This research has proved that people who are knowledgeable and able to use digital will perform better. Experts also emphasize that digital technology can improve business performance (Guo et al., 2020; Proksch et al., 2021).

Meanwhile, the frequency of use of digital technology has great significance and is the primary driver of change (Stockwell et al., 2019; Willoughby, 2008). High frequency of use reflects a person's dependence on technology (Nasirpouri Shadbad & Biros, 2022; Pordelan et al., 2022), and this reflects employees' digital behavior. Sawrikar and Mote (2022) emphasize that individuals who understand digital technology tend to have a high level of confidence in adopting this technology. This means that individuals who understand and master digital technology will perform better. Individual digital capabilities influence organizational performance and growth (Scuotto et al., 2021). Individual performance can be seen from how much a person acts to achieve organizational goals (Annosi et al., 2020), such as conformity of work results with targets, procedures, timeliness, quantity, and quality of work.

Running a business is no longer just about using technological equipment. However, building each employee's behavior to make work more efficient through digital behavior is very necessary. Therefore, a leader needs to engineer the use of digital technology for his employees so that they can help with their company's daily work. Pro-digital leadership policies will make it easier to create digital behavior in achieving organizational goals. Long-term digital behavior will improve employee performance and company performance sustainably.

6. Conclusions

This research found that digital behavior consists of three dimensions: digital knowledge & skills, availability of digital technology, and adoption of digital technology innovation. All three have a direct impact on improving employee performance. The test results also show that the dimensions are unrelated, and each dimension only has a partial effect on employee performance. This means that efforts are needed to foster digital behavior among employees to improve employee performance. This step will be effectively achieved if there is support from the highest leadership in the company, more appreciation for digital services, encouraging employees to think critically in adopting digital technology, learning from each other using digital technology, paperless efforts, getting used to serving and being served with digital technology and transforming using digital technology to complete various daily tasks. This research, which many people have not done, needs to be developed by looking at it from multiple points of view, such as from the perspective, of the owner and investment, leadership, and the consumer perspective.

Theoretical Implications

Based on the research conclusions, three theoretical contributions are identified. First, this study expands the scope of behaviorism theory in an organizational context by integrating cognitive aspects such as digital knowledge and skills. The findings show that employee behavior is influenced by environmental stimuli and more complex mental processes. Second, the study provides a more comprehensive synthesis of cognitive theory and behaviorism in explaining employees' digital behavior formation. It demonstrates that human behavior in the workplace results from a dynamic interaction between external factors (work environment) and internal factors (perception, knowledge, and skills). Third, the study's findings significantly contribute to developing a more comprehensive organizational culture model. The dimension of digital behavior can be added as an important variable in explaining organizational performance and the success of business strategy implementation.

Practical Implications

The current study offers guidance policy to organizational leaders and managers. Before investing in digitalization, leaders must evaluate and monitor both external and internal environments to ensure that their decisions lead to improved performance. The study highlights the urgency for organizations to proactively develop their employees' digital capacity, including training, mentoring, and providing relevant technological infrastructure in line with business needs. Additionally, transformative leadership is crucial in fostering a strong digital culture. Leaders should act as role models and create a work environment that supports innovation and learning. To optimize the benefits of digital behavior within an organization and use the digital workplace effectively, employees must have digital literacy, which can be achieved through regular training sessions organized by management.

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