

## THE MEDIATOR ROLE OF TASK PERFORMANCE IN THE EFFECT OF DIGITAL LITERACY ON FIRM PERFORMANCE

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**Abstract:** *Digital technologies, which have made significant progress in the last two decades, have paved the way for the emergence of many new-generation devices, platforms and applications. The increase in the use of these technologies has transformed many activities in daily life and significantly changed the business world. The concept of digital transformation, which has become a popular motto for many companies today, has improved the interaction between companies and consumers and changed how companies do business, making the transformation necessary. Digital transformation in businesses can be partial (such as establishing new departments or marketing channels) or major (such as changing the entire business model). In any case, digital transformation is a necessity of the current age. Human capital is vital in increasing the firm performance of companies and gaining a competitive advantage against their competitors. Today, one factor that can improve employees' task performance in digital economies is digital competencies. Therefore, having a certain level of digital literacy among employees is crucial for companies to achieve adequate performance in digitalization and beyond. From this perspective, this research aims to determine the effect of employees' digital literacy on their task performance and firm performance. Investigation of this topic in the paper is carried out in the following logical sequence: First of all, the research presents the conceptual framework for digital literacy, task performance, and firm performance. The results of studies in the literature are presented, and the hypothesis development process is based on the research results. The subsequent section provides information about the study's methodology and findings. Finally, the research concludes with the results and discussion section. Within the scope of the study, data were collected from 222 white-collar employees in Istanbul through online questionnaires. A convenience sampling technique was used to determine the sample. SPSS 25 and SPSS Process 2.13 package programs were used to analyse the data. The research results show a medium-level relationship between digital literacy and task performance, a medium-level relationship between digital literacy and firm performance, and a high and positive relationship between firm performance and task performance. According to the mediation analysis results, employees' digital literacy positively affects task performance and firm performance. In addition, it has been determined that task performance plays a mediating role in the effect of employees' digital literacy on firm performance. It appears that company managers should prioritize the focus of the «Reskilling Revolution Initiative», which emphasizes the transformation of employees' skills to attain sustainable competitive advantage and enable digital transformation.*

**Keywords:** digital literacy, firm performance, human capital, task performance, white collar.

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**Introduction.** The world is changing at a rapid pace. Digital technologies, which have made significant progress in the last two decades, have paved the way for the emergence of many new-generation devices, platforms/infrastructures, and applications. The increase in the use of these technologies has transformed many activities in daily life and significantly changed the business world. The concept of digital transformation, which has become a popular motto for many companies today, has improved the interaction between companies and consumers and changed how companies do business, making the transformation necessary (van Meeteren et al., 2022). In recent years, companies in almost every sector have tried to adopt new technologies and take advantage of their benefits. Companies aim to gain an edge over their competitors by offering competitive products and services to the market with their initiatives. However, the fact that companies can gain these advantages also brings various difficulties. First, significant changes in their operational processes, organizational structures, and human resources are required for companies to transform. Since this situation directly affects the firm's ability to renew itself, a wrong or faulty transformation decision may harm its competitiveness. A firm's inaction by relying on its current strength in the market will not make its success sustainable (Vial, 2021; Gray and Rumpe, 2017). Digitalization is possible for companies by integrating advanced digital technologies into their operations and adapting their employees to these technologies (Kotarba, 2018; Downes and Nunes, 2013).

It is possible to base digital transformation on two main factors: technology and individuals (Bican and Brem, 2020). Considering the dynamic competition conditions in today's sectors, the ability of a firm to maintain its competitiveness in the market depends on the investments it makes in these two main factors (Tekic and Koroteev, 2019). Bican and Brem (2020) stated that the main factors that enable companies to be successful in the digitalization process are the technology and digital literacy levels of the white-collar employees of the companies. Similarly, in the study conducted by Tekic and Koroteev (2019), successful digital transformation was associated with the level of digital literacy of the firm's employees and the readiness of the firm's business model for the digitalization process. Therefore, the concept of digital literacy is one of the important concepts that come to the fore in the digital transformation of companies. The concept of digital literacy has become an important issue with the widespread use of the internet and technological devices, which have become the centre of daily life with digitalization. However, the concept of digital literacy, as expressed in the first place, should be perceived as using something other than a technological device or digital platform. Digital literacy means that individuals can understand the accuracy and validity of the information they reach in creating new knowledge by accessing the information on digital platforms and distinguishing secure platforms where they can meet their daily needs (business, communication, education) (Livingstone, 2005; Ng, 2012; Öngel et al., 2022).

Digital transformation in businesses can be partial (such as establishing new departments or marketing channels) or major (such as changing the entire business model). In any case, digital transformation is a necessity of the current age. Therefore, having a certain level of digital literacy among employees is crucial for companies to achieve adequate performance in digitalization and beyond. From this perspective, this research aims to determine the effect of employees' digital literacy on their task performance and firm performance. The findings of this study will contribute to companies' digital transformation process by emphasizing the importance of employees' digital literacy level for the firm's performance and adding to the limited existing literature on this topic.

In addition to impacting firms' financial performance, employees' digital literacy plays a crucial role in ensuring firms' sustainability during digital transformation. The Reskilling Revolution Initiative introduced by the World Economic Forum emphasizes the significance of training employees, enabling them to acquire new skills that contribute to the corporate sustainability of firms in the digital transformation process. However, more literature is needed to examine the influence of employees' digital literacy levels on firm performance. Furthermore, studies investigating the role of task performance in the relationship between employees' digital literacy levels and firm performance are yet to be identified. Task performance is utilized as a means to address the missing link between digital literacy and firm performance. Therefore, this situation not only contributes to the originality of this study but also fills the gap in the existing literature.

The next research section presents the conceptual framework for digital literacy, task performance, and firm performance. The results of studies in the literature are presented, and the hypothesis development process is based on the research results. The subsequent section provides information about the study's methodology and findings. Finally, the research concludes with the results and discussion section.

**Literature Review.** Digital literacy is important for individuals to keep up with the digital age and for the development of the labour market. Digital literacy is a skill that people in the labour market should have because digital skills that develop in parallel with digital literacy are necessary for the social life of individuals

and their business life (Bejakovic and Mrnjavac, 2020). The concept of digital literacy has been defined by Eshet-Alkali (2004) as «the ability to survive in the digital age». Ng (2012) associated digital literacy with individuals' ability to adapt to digital technologies in line with this approach. Therefore, digitalization requires individuals, companies, and employees to be digitally literate to keep up with the digital age. Huber (2004) asserts that companies that can keep up with changes will gain a competitive advantage over their rivals and thus survive. Change is an unavoidable aspect of a dynamic business environment. Companies must continuously seek new opportunities in sectors with intense competition and transform themselves by developing new business processes. Therefore, companies must train employees and enhance their job performance to stay abreast of these changes (Tummers et al., 2015).

The employees' job performance is a factor that directly affects the performance of the companies. As a concept, job performance can be defined as the level of fulfilment of the activities expected from the employees within the scope of their job descriptions (Obuobisa-Darko, 2020; Koopmans et al., 2013; Bayar, 2020; Viswesvaran, 2002). Since job performance includes activities related to formal job descriptions of employees, this concept directly affects the functioning of companies. This situation constitutes the main hypothesis of the view based on the competence of employees from the perspective of human resources (Freiling et al., 2008). The competency-based view emphasizes the importance of employee knowledge in increasing firm performance in a knowledge-oriented economy (Chen et al., 2016). Lee and Sukoco (2007) stated that firm performance is affected by tangible and intangible resources. The intangible resources of the enterprises are their employees operating within their structure. Chien and Tsai (2012) and Goh et al. (2012) stated that employees must have skills that will directly affect the firm's operational efficiency, such as problem-solving and developing new products, in increasing organizational effectiveness. Maimone and Sinclair (2014) stated that employees could be more creative in their duties according to their knowledge level, while Vargas (2015) stated that employees with a high level of knowledge are more effective in producing innovative ideas and implementing the ideas they produce.

The studies in the current literature revealed that the level of knowledge of employees affects task performance (Imran et al., 2018), firm efficiency (Gold et al., 2001), reputation (Lee and Choi, 2003), competitive power (Leonardi, 2014), and firm performance (Zaied et al., 2012) positively. Therefore, the success of strategies implemented by companies that aim to maintain their competitive power in their sectors during the digital transformation era is directly related to the digital literacy of their employees. However, digital literacy studies in the literature have often examined individuals, and the firm's dimension of the subject must be considered (Littlejohn et al., 2012; Wagner et al., 2014; Vial, 2021). The contribution of digital literacy of employees is crucial for the firm because digital technologies' possibilities in employees and the knowledge they will need to execute digital business models are shaped by the interactions they will have with other employees within the organization and the training the organization provides. Eden et al. (2019) emphasized the importance of digital literacy in increasing employees' digital competence and enabling companies to have a strong corporate culture. Anderson and Robey (2017) highlighted the importance of ensuring harmony between digital technologies and employees. The digital competencies of the employees make them more willing to use digital tools in the firm (Nikou et al., 2022). In addition, the digital competencies of employees improve task performance by rationalizing their decision-making process (Kumar et al., 2023). Digital literacy of employees increases individual performance and enterprises' performance (Yanto et al., 2022) and firms (Sujarwo et al., 2022; Vijaya and Swarupa, 2022). On the other hand, employees' digital competencies increase firms' competencies and activate digital transformation (Cetindamar Kozanoglu and Abedin, 2021; Drydakakis, 2022).

Some studies in the current literature state that the digital literacy level of employees is one of the important factors affecting success in the transformation processes led by digital technologies (Kane et al., 2019; Warner and Wager, 2019). Mohammadyari and Singh (2015) and Cetindamar et al. (2021) concluded in their research that digital literacy significantly affects individuals' intention to use technology. Ranatunga et al. (2020) concluded that individuals' digital literacy is related to performance. Supriadi et al. (2021) state that the digital literacy of employees positively affects firm performance. When the conceptual framework and the findings in the literature summary are considered together, the digital literacy of employees can increase their performance. The employees' performance can increase the firm's performance within the framework of the competency-based view. Based on these inferences, the research hypotheses are as follows:

**H1:** Digital literacy positively affects task performance.

**H2:** Digital literacy positively affects firm performance.

**H3:** Task performance positively affects firm performance.

**H4:** Task performance has a mediating role in the effect of digital literacy on firm performance.

**Methodology and research methods.** Purpose and importance of the research: In today's world, digital literacy among employees is crucial for companies to accept innovations easily and solve problems efficiently. In other words, employees' knowledge and competencies represent valuable human capital for companies. In the digital era, working capital has become a key factor for companies to gain and maintain a competitive advantage. Increased working capital is associated with enhanced firm performance (Lee and Sukoco, 2007; Barney, 1991). However, studies have not explored the relationship between working capital and firm performance regarding digital literacy. Such studies have a limited scope in revealing how much digital literacy contributes to the performance of employees and whether it is related to firm performance. In this context, this research aims to examine the role of employees' job performance in the impact of their digital literacy on the firm's performance. The results shed light on how the digital competencies of employees are linked to task performance and firm performance in the digital era. Not all employees' competencies may contribute to increasing their task performance and, subsequently, the firm's performance. This research contributes to the literature by highlighting the employee capital likely to influence firm performance.

**Sampling and sampling method:** The study was conducted with white-collar employees working in corporate companies located in Istanbul. The research sample consisted of 222 white-collar employees from corporate companies in Istanbul. The sample size was determined based on Boomsma's (1985) and Jackson's (2001) opinions. According to these researchers, a sample size of 200 or more is sufficient for conducting research. Moreover, the sample size was not increased to excessively high levels, as this may result in finding significant relationships where there are none (Hair et al., 2014). It is particularly important to note that white-collar employees perform more knowledge-based tasks than labour-intensive ones. Therefore, a convenience sampling technique was used to select the research sample. While this method has advantages in reaching the sample, its power of generalizability is limited (Kocs Basaran, 2017; Gravetter and Forzano, 2012).

**Data collection tools of the research:** A questionnaire consisting of four parts were used in this study. The first part of the questionnaire used the digital literacy scale by Öngel et al. (2021), which consists of 13 items. The second part used a 9-item task performance scale developed by Goodman and Syvanteke (1999) and Jawahar and Carr (2007), which was translated into Turkish by Bağcı (2014). The third part used the work engagement scale developed by Ellinger et al. (2002), frequently used in the literature and consisting of seven items. Finally, the last part of the questionnaire included demographic questions to determine the participants' demographic characteristics. The measurement tools were responded to using a 5-point Likert scale (1-strongly disagree/5- strongly agree).

**Research sample:** In this part of the research, information about the demographic characteristics of the participants within the research scope is presented. When the age characteristics of the participants are examined, it is seen that 25.2% of the participants are in the 20-29 age range, 44.1% are in the 30-39 age range, and 30.6% are 40 years old or older. On the other hand, 51.8% of the participants were women, and 48.2% were men. When the education level characteristics are examined, it is seen that 17.6% of the participants have high school and associate degree education, 46.8% have undergraduate education, and 35.6% have graduate education. Additionally, 19.8% of the participants have 0-4 years of experience, 2% have 5-9 years of experience, 19.4% have 10-14 years of experience, and 13.5% have 15-19 years of experience. Meanwhile, 20.3% of them have 20 or more years of experience. At the same time, 34.2% of the participants have worked in a single position in their institution, 27.9% in two different positions, 24.8% in three different positions, and 13.1% in four or more positions. Finally, 14.9% of the participants are top-level managers, 37.8% are middle-level managers, 12.2% are lower-level managers, and 35.1% do not have a management role.

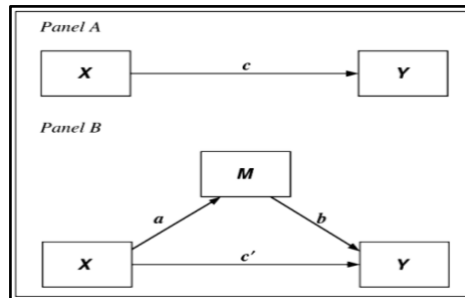
The data collection process used online questionnaire forms, which were sent to the employees of the companies through communication tools such as email and WhatsApp, and their responses were collected.

**Factor analysis and reliability analysis:** Initially, factor analysis and reliability analysis were conducted to evaluate the suitability of the data and measurement tools. The criteria recommended by Hair et al. (2014), regarded as pioneers in the literature for assessing the results of factor and reliability analysis, were adopted as widely accepted threshold values. The recommended threshold values are as follows: KMO sample adequacy > 0.60/0.70, Bartlett's test for sphericity < 0.05, Total explained variance > 0.60, Factor loads > 0.30/0.40, Cronbach's Alpha coefficient > 0.60/0.70.

**Correlation analysis:** Pearson correlation analysis was used to determine the relationships between the variables in the study's conceptual model. In cases where normal distribution is not achieved (Hair et al., 2014; Tabachnick and Fidell, 2013; George and Mallery, 2011), it is recommended to use skewness/kurtosis values. For this reason, Pearson correlation analysis was performed assuming a normal distribution, considering the skewness and kurtosis values.

Mediation analysis: Figure 1 shows the model used in the research, consisting of Panels A and B. Panel A includes the independent variable (x) and dependent variable (y). Panel B includes the independent (x), dependent (y), and mediating (m) variables.

The path a in Figure (Panel B) represents the direct effect (coefficient) of x on m. The effect of the mediator variable (m) on the dependent variable (y) (the coefficient obtained as a result of testing x, y, and m in the same model) represents path b. The effect of the independent variable (x) on the dependent variable (y) (total effect; Panel A) is shown by c. Finally, the c' path shows the direct effect of the independent variable (x) on the dependent variable (y) while controlling for the coefficient/m obtained from the test of x, y, and m in the same model. In summary, c represents the total effect, a.b represents the indirect effect, c' represents the direct effect, and  $c=c'+(a.b)$  (Preacher and Hayes, 2004; Gurbuz, 2021). Hayes' (2018) model number 4 was used for model testing, and the analysis was carried out using SPSS Process 2.13.

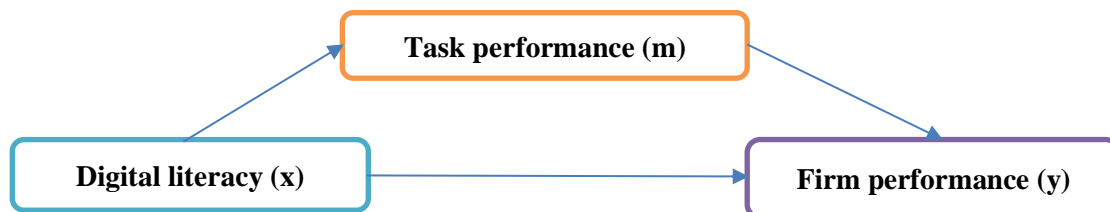


**Figure 1. Mediation model**

Sources: developed by the authors based on Hayes (2018).

In Figure 1 and Table 3, model results are presented that analyze the mediating role of task performance in the effect of digital literacy of white-collar employees on firm performance. The regression model based on the resampling technique was used to test the model (SPSS Process). Many researchers in the literature (e.g., Gurbuz, 2021; Hayes, 2018; Preacher et al., 2007) argue that resampling gives more effective results than traditional methods. During the mediation analysis, the 5000 option was used for resampling. On the other hand, in mediation tests performed with resampling, the confidence interval (CI) value is used rather than the p-value. To express the analysis results reliably, there should be no 0 points between the LLCI and ULCI (BootLLCI and BootULCI) values (Hayes, 2018). The absence of a 0 point between the confidence interval values is required to support the hypotheses.

Conceptual model of the research: The conceptual model of the research is presented in Figure 2, where digital literacy is depicted as the independent variable, task performance as the mediator variable, and firm performance as the dependent variable.



**Figure 2. Conceptual model of the research**

Sources: developed by the authors.

**Results.** The findings regarding the factor and reliability analysis results of the scales are presented in Table 1. According to the findings, the KMO sample adequacy value of the firm's performance scale was 0.936, the total variance explained was 78%, and the Cronbach's Alpha coefficient was 0.953. On the other hand, Bartlett's sphericity test results of the scale were significant at the  $p<0.05$  level. In addition, there are seven items in the measurement tool, and no item was excluded from the scope of the research during the analysis. The KMO sample adequacy value of the task performance scale was 0.928, the total variance explained was 66.99%, and the Cronbach's Alpha coefficient was 0.935. On the other hand, Bartlett's sphericity test results of the scale were significant at the  $p<0.05$  level. In addition, there are nine items in the measurement tool, and every item was included in the scope of the research during the analysis. In line with the findings, it is appropriate to use the task performance scale within the scope of the research. The KMO

sample adequacy value of the digital literacy scale was 0.874, the variance explained was 59.06%, and the Cronbach's Alpha coefficient was 0.851.

**Table 1. Factor and reliability analysis results of the scales**

	Firm performance	Task performance	Digital literacy
Kaiser-Meyer-Olkin (KMO) Sampling Adequacy	0,936	0,928	0,874
Bartlett's Chi-Square Test	1481,015	1579,450	1071,297
S. D.	21	36	78
Sig.	0,000	0,000	0,000
Total Variance Explained	78,004	66,990	59,063
Reliability Cronbach's Alpha	0,953	0,935	0,851
Analysis Item	7	9	12

Sources: developed by the authors.

On the other hand, Bartlett's sphericity test results of the scale were significant at the  $p < 0.05$  level. In addition, there are 13 items in the measurement tool, and every item was included in the scope of the research during the analysis. In line with the findings, it is appropriate to use the digital literacy scale within the scope of the research. The obtained results are presented in Table 2.

**Table 2. Correlation analysis results**

	$\bar{x}$	$\sigma$	Firm performance	Task Performance	Digital Literacy
Firm performance	3,6055	0,95374	1		
Task Performance	4,4625	0,68437	0,434**	1	
Digital Literacy	4,2727	0,57594	0,352**	0,705**	1

\*\* Correlation is sig. 0,01 level  
N=222

Sources: developed by the authors.

Table 2 shows the results of the correlation analysis, which depicts the relationships between the variables. According to the results of the analysis, there is a positive, moderate ( $r=0.434$ ) and significant relationship at the  $p < 0.05$  level between the firm's financial performance and task performance, a positive, low-level ( $r=0.352$ ) and significant relationship at the  $p < 0.05$  level between the firm's financial performance and digital literacy. In addition, a high level ( $r=0.705$ ), positive and significant relationship at the  $p < 0.05$  level was found between digital literacy and task performance. Finally, when the average values obtained from the answers given by the participants were examined, it was determined that the participants expressed positive views towards their firm's performance ( $\bar{x}=3.60$ ), had a high level of task performance ( $\bar{x}=4.46$ ), and had a very high level of digital literacy ( $\bar{x}=4.27$ ).

**Table 3. Model test results**

	R	R <sup>2</sup>	P	B	P	LLCI	ULCI	Hypothesis	
<b>Digital literacy (x) → Task performance (m)</b>									
a path	Task performance	0,705	0,497	0,000	0,8840	0,000	0,4012	1,3669	H <sub>1</sub> Supported
	Digital literacy				<b>0,8375</b>	<b>0,000</b>	0,7255	0,9495	
<b>Digital literacy (x) → Firm performance (y)</b>									
c path	Firm performance	0,352	0,124	0,000	1,1140	0,014	0,2261	2,0018	H <sub>2</sub> Supported
	Digital literacy				0,5831	0,000	0,3772	0,7891	
<b>Task performance (m) Firm performance (y)</b>									
	Firm performance	0,434	0,189	0,000	0,9042	0,0188	0,1513	1,6572	H <sub>3</sub> Supported
	Task performance				0,6053	0,0000	0,4385	0,7721	
<b>Digital literacy (x), Task performance (m) → Firm performance (y)</b>									
b path	Firm performance	0,439	0,193	0,000	0,6582	<b>0,1415</b>	<b>-0,2209</b>	<b>1,5373</b>	
	Task performance				0,5156	0,000	0,2805	0,7506	
c' path	Digital literacy				0,1513	<b>0,2867</b>	<b>-0,1280</b>	<b>0,4306</b>	
<b>Indirect effect</b>									
	X	m	y	effect	Boot LLCI	Boot ULCI			
a*b path	Digital literacy	Task performance	Firm performance	0,4318	0,2497	0,6435	H <sub>4</sub>	Supported	

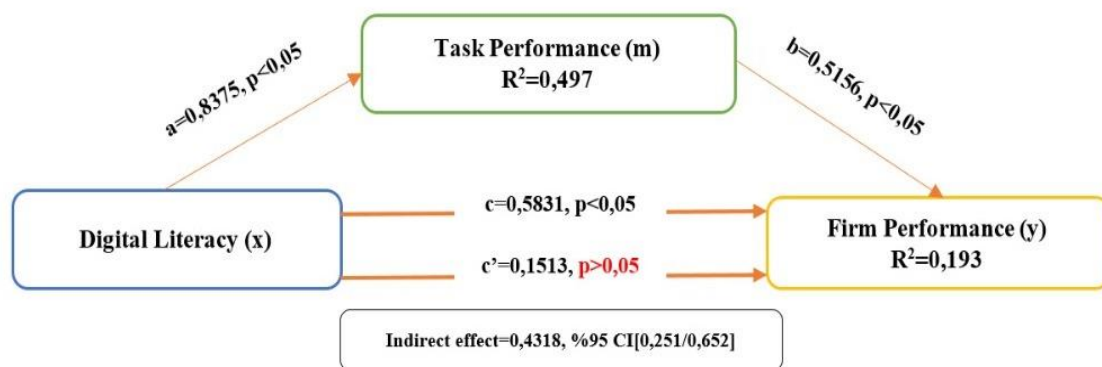
Sources: developed by the authors.

Table 3 shows the model test results. According to the analysis findings, the effect of digital literacy on task performance (path a) is 49.7%. When the coefficient obtained is examined ( $B=0.8375$ ), it is possible to state that the digital literacy of the employees increases their task performance. The explanatory power of pathway A is significant in terms of  $p<0.05$  and confidence interval (LLCI and ULCI). The hypothesis « $H_1$ : Digital literacy positively affects task performance» is supported by the findings.

Regarding the c-path, which shows the effect of digital literacy on the firm's financial performance, the explanatory power of digital literacy for firm performance is 12.4%. When the coefficients obtained are analysed ( $B=0.5831$ ), it can be concluded that employees' digital literacy positively affects the firm's financial performance. The explanatory power presented for the C pathway is significant regarding  $p<0.05$  and confidence interval (LLCI and ULCI). The hypothesis « $H_2$ : Digital literacy positively affects firm performance» is supported by the findings.

According to the model showing the effect of employees' job performance on firm performance, the level of explaining the firm's financial performance by employees' job performance is 18.89%. When the coefficients obtained are analysed ( $B=0.6053$ ), it can be stated that an increase in employees' job performance positively affects the firm's financial performance. The explanatory level of the model is significant in terms of  $p<0.05$  and confidence interval (LLCI and ULCI). The hypothesis « $H_3$ : Task performance positively affects firm performance» was supported in line with the findings.

When job performance is included in the model that tests the effect of employees' digital literacy on a firm financial performance, the model's explanatory level increases to 19.29%. However, the coefficient of digital literacy decreases from 0.5831 to 0.1513. Moreover, it was found that the coefficient (B) of digital literacy was not significant at the  $p<0.05$  level ( $p=0.2867>0.05$ ), and the confidence interval values (LLCI=-0.1280 and ULCI=0.4306) include that point. According to the findings, path b has a significant value, while path c' does not have a significant value. According to Baron and Kenny (1986), when variable m is included in the model where x explains y, a decrease in the significance of x or a significant decrease in the explanatory level indicates the full mediation model. According to the procedure proposed by Baron and Kenny (1986), the effect of employees' digital literacy on a firm financial performance has a fully mediating role in the effect of employees on task performance. On the other hand, according to the procedure of Hayes (2018), looking at the indirect effect model in determining the effect of the mediator variable is recommended. When the indirect effect model is examined, the  $a*b$  pathway interaction, which shows the mediating role of employees' task performance in the effect of employees' digital literacy on firm performance, is significant since the BootLLCI / BootULCI levels do not contain 0 values between them. When evaluated in general, employees' task performance has a mediating role in the effect of employees' digital literacy on firm financial performance. The mediation effect obtained can be expressed as a high level of mediation role (Gurbuz, 2021).



**Figure 3. The Mediating Role of Task Performance in the Effect of Digital Literacy on Firm Performance**

Sources: developed by the authors.

The model resulting from the testing of the research model is presented in Figure 3. According to the model's findings and the mediation analysis, the hypothesis « $H_4$ : Task performance has a mediating role in the effect of digital literacy on firm performance» was supported.

Based on the findings, employees with digital skills are expected to be more flexible in adopting digital strategies such as process automation and data analytics. The digital competencies of employees enhance

companies' competitive advantage and enable them to develop innovative solutions. For instance, an employee who can effectively implement digital marketing strategies can increase the firm's brand awareness and expand its customer base. Additionally, digitally competent employees efficiently manage work processes, generate creative solutions, and contribute to innovation.

**Conclusions.** In recent years, digitalization activities have become widespread in many areas with the effect of digitalization. As a result, the issue of the digital competencies of individuals has come to the fore. Although the number of studies on the concepts mentioned above is quite limited, the digital competencies of employees can contribute positively to the performance of companies, as shown by the limited number of studies. However, the competencies of employees may sometimes have a direct impact on the companies or the duties of employees. Therefore, considering the limited literature, it is important to investigate the situation and reveal the relationships between the concepts. In this context, the main focus of the research is to answer the question, «Does digital literacy affect the job performance of employees and, subsequently, the performance of the firm?» This research aims to determine the relationship between digital literacy, employees' task performance, and the firm's performance. Additionally, another aim of the research is to determine the mediating role of task performance in the effect of employees' digital literacy on firm performance.

According to the research findings, the digital literacy of white-collar employees increases their task performance. On the other hand, the digital literacy of employees positively affects firm performance. Additionally, when employees' job performance is positive, the firm's performance is positively affected by the employees' job performance. Finally, employees' digital literacy increases firm performance through task performance.

Considering the findings obtained as a result of the research, first of all, selecting employees from people with high digital literacy or developing the digital literacy of employees will enable them to perform their duties more successfully. Since job performance is an element that increases firm performance, employees' positive job performance will also affect the firm's performance positively.

The most important focus of the competency-based view, used to explain the contribution of employees to firm performance, is to analyse the relationship between employees and firm performance (e.g., Freiling et al., 2008). In this respect, it is important to test the idea that the knowledge level of employees is related to firm performance (Chen et al., 2016). The most important result of this research, which was carried out from such a perspective, is to support «the relationship of the knowledge level of employees with the performance of the firm», advocated by the competency-based view. Because employees' competencies are related to firm performance (Vijaya and Swarupa, 2022), task performance (Kumar et al., 2023) points to a finding that supports the idea of developing sustainable competitive advantage, profitability (Barney, 1991) and advanced capabilities for the firm (Teece, 2007) by utilizing human capital.

No research has been found examining the role of task performance in the impact of employees' digital literacy on firm performance. Therefore, a direct comparison of the results obtained in the research with previous studies is not possible. However, some studies have concluded that employees' digital literacy enhances task performance (Ranatunga et al., 2020) and assists employees in making more rational decisions (Yanto et al., 2022; Kumar et al., 2023). Research has also found that employees' digital competencies stimulate the dynamics of the firm, leading to digital transformation and increased firm performance (Drydakis, 2022; Sujarwo et al., 2022; Supriadi et al., 2021). Considering these relationship patterns, the research findings are consistent with the literature.

Generally, not all employees in a company have a high level of digital literacy and digital competencies. Employees with low digital literacy may need help in using technology. This situation can hinder timely task completion, result in communication breakdowns among employees, and lead to inefficient task outputs. Therefore, if employees' digital skills are developed, firm performance can be positively affected, and a competitive disadvantage may arise. Hence, companies must provide training and support to enhance their employees' digital skills.

Additionally, in companies undergoing digital transformation, it is necessary to identify employees' digital competencies and equip them with the necessary skills. Enhancing employees' digital competencies are emphasized in The Reskilling Revolution Initiative proposed by the World Economic Forum. According to the initiative, imparting digital skills to employees is critical for firms' sustainability.

While the research results point to important findings, they have some limitations. Especially in the digital literacy literature, measurement tools have yet to be widely used. At the same time, the data collection process in this research was carried out with white-collar workers in different sectors. Sectoral differences may affect the reflection of employees' digital competencies on the job and firm performance. Therefore, sectoral



comparisons and more specific samples are needed. Finally, although all the employees participating in the research were white-collar, their managerial positions were ignored. It can be important in digital literacy research, as the management level will affect employees' ability to have a say in decision-making. These limitations should be taken into account when examining the research results.

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### **Вплив цифрової грамотності на результати діяльності компанії: медіаційна роль ефективності виконання завдань**

Цифрові технології, які досягли значного прогресу за останні два десятиліття, сприяли появі багатьох пристроїв, платформ і додатків нового покоління. Надмірне використання цих технологій трансформувало низку видів діяльності у повсякденному житті та суттєво змінило бізнес-середовище. Концепція цифрової трансформації, яка сьогодні стала популярним девізом для багатьох компаній, покращила взаємодію між компаніями та споживачами і змінила спосіб ведення бізнесу, зробивши трансформаційні зрушення необхідною умовою успішного розвитку бізнесу. Цифрова трансформація в бізнесі може бути частковою (наприклад, створення нових відділів або маркетингових каналів) або масштабною (наприклад, зміна всієї бізнес-моделі). При цьому людський капітал є життєво важливим для підвищення ефективності роботи компаній та отримання переваг з-поміж конкурентів. Одним із факторів, який може покращити виконання завдань працівниками в умовах цифрової економіки, є цифрові компетенції. Тому наявність певного рівня цифрової грамотності серед працівників має вирішальне значення для досягнення компаніями належної ефективності в умовах цифровізації. Дослідження має на меті визначити вплив цифрової грамотності працівників на виконання ними завдань та результати діяльності компанії. Вивчення цієї теми в роботі здійснюється в такій логічній послідовності. Перш за все, в дослідженні представлено концептуальні засади цифрової грамотності, ефективності виконання поставлених завдань та результативності діяльності компанії. На основі узагальнення наукового доробку у сфері цифровізації економіки та управління трудовими ресурсами авторами сформовано гіпотези дослідження. Наступний розділ містить інформацію про методологію дослідження та його результати. Нарешті, дослідження завершується розділом результатів та обговорення. Згідно з результатами аналізу медіації, цифрова грамотність працівників позитивно впливає на виконання завдань та ефективність роботи компанії. Крім того, було визначено, що виконання завдань відіграє посередницьку роль у впливі цифрової грамотності працівників на результати діяльності компанії. Зроблено висновок, що керівники компаній повинні визначити пріоритетні напрямки спрямовані на трансформації навичок працівників для досягнення стійких конкурентних переваг та забезпечення реалізації цифрових трансформацій.

**Ключові слова:** цифрова грамотність, ефективність фірми, людський капітал, виконання завдань.