

The Effects of Learning Agility, Employee Resilience, and Cross-Functional Collaboration on Workforce Digital Adaptability among Government Agency Employees

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Abstract

The aim of this research is to examine the effect of Learning Agility, Employee Resilience, and Cross-Functional Collaboration on Workforce Digital Adaptability of government agency employees. The research method used is quantitative with survey technique to personnel in government institution. A purposive sample approach was employed in the selection of the respondents based on their knowledge and experience of work processes, changes within the company and the usage of digital systems, apps or platforms in their job. Data were collected using an online questionnaire issued by Google Forms and data were analyzed using multiple linear regression. The findings reveal that Learning Agility, Employee Resilience and Cross Functional Collaboration have the considerable beneficial influence on Workforce Digital Adaptability. The results indicate the importance of workers learning from experience, accepting criticism, receiving new information and applying learning outcomes in handling change to enhance their adaptability in the digital work environment. The findings also indicate that government agencies should improve the learning capabilities of employees, their ability to deal with change, and cross-functional collaboration, to better prepare employees to embrace technology, adjust their competencies and ways of working, and support the success of digital transformation in a sustainable way.

Keywords: learning agility, employee resilience, cross-functional collaboration, workforce digital adaptability.

INTRODUCTION

Digital transformation has become a key goal in the modernization of government governance, because technology innovations have changed the way government agencies perform administrative operations, supply public services, handle information and interact with people (Mahardika, 2026). The use of electronic government systems, digital public services, cloud computing, big data analysis, artificial intelligence, automation and other digital collaboration platforms have brought major changes in the nature of the job carried out

by government personnel. These developments show that the success of digital transformation is dependent not only on the availability of technology infrastructure but also on the ability of workers to adapt to emerging technologies, work processes, skills and patterns of engagement (Baskoro et al., 2025). In these environments, Workforce Digital Adaptability has become a critical capability for achieving digital transformation in government agencies. Employees who are highly digitally adaptable tend to learn new systems more easily, adapt to process changes, use technology to do their jobs, and identify better work methods (Djunaedi et al., 2025).

Learning Agility is expected to be one of the major variables in increasing Workforce Digital Adaptability among personnel of government agencies (Widarbowo et al., 2023). Learning Agility is the ability and willingness of a person to learn from experience, to seek new information, to change mindset, and to apply learning outcomes in new and different situations (Vinesian et al., 2023). This competence is increasingly important in digitally transforming government work settings where technology, systems, processes and competencies can change in a very short period of time (Kholil et al., 2020; Anggraini, 2020). Staff must keep their knowledge and skills up-to-date for deploying government apps, integrated information systems, digital public services, data analytics, automation and artificial intelligence. Besides Learning Agility, Employee Resilience is also considered as one of the major factors that could enhance Workforce Digital Adaptability of government agency personnel. Employee resilience is the ability to deal with pressures, uncertainties, adversities and changes in the work environment, and to maintain or recover job effectiveness after facing difficult situations (Zakaria et al., 2025). The digital transformation can stress employees. New technologies are usually associated with changes in procedures, the need for new skills, an increased pace of work, changes in responsibilities and uncertainty about previously established ways of working (Setyawati et al., 2023; Sabilalo et al., 2020). In such situations, workers need not only technical skills, but also resilience to manage the transition process and to overcome numerous obstacles that occur during adaptation. Cross-Functional Collaboration is also expected to be an important contributor in enhancing Workforce Digital Adaptability for government agency staff. Cross-Functional Collaboration is the ability of people and organizational units with different roles, experience, responsibility and background to talk to each other, share information, combine knowledge and work together to achieve corporate objectives (Li et al., 2022). The nature of digital transformation in government agencies is cross-functional, as the deployment of a digital system usually includes information technology, administration, finance, human resources, planning, public services, procurement and other technical departments (Rafiun et al., 2022).

The objective of this study is to examine the effect of Learning Agility, Employee Resilience and Cross-Functional Collaboration on Workforce Digital Adaptability of employees in the government agencies. The study is particularly relevant because the success of digital transformation in government cannot be backed only by investments in technology and infrastructure but also by human resources able to adapt their competences, behaviors and ways of working to changes in the digital environment. The study is expected to make theoretical contributions to the literature in the areas of human resource management, organizational behavior, digital transformation, public sector management and workforce adaptability, especially by providing a better understanding of individual and organizational factors that can boost the digital adaptability of government employees.

METHOD

This research used a quantitative method through survey technique to investigate the effect of Learning Agility, Employee Resilience, and Cross-Functional Collaboration on Workforce Digital Adaptability in government agency employees. The research population was workers who worked in the government agencies in Indonesia, which covered administration, public services, finance, human resources, planning, information technology, and other technical and supporting units. The sampling method used is purposive sampling. The respondents should be actively working in a government agency, have a minimum work experience of one year, understand the work process and changes that occur in the organization, and have experience in utilizing digital systems, applications or platforms in their work. Data were gathered through an online questionnaire distributed via Google Forms. All items of the research instrument were measured on a five-point Likert scale, ranging from 1, "strongly disagree" to 5, "strongly agree". Data were analyzed using multiple linear regression to explore the partial and simultaneous impact of Learning Agility, Employee Resilience and Cross-Functional Collaboration on Workforce Digital Adaptability. Partial hypothesis testing is done by t-test at confidence level 5% ($\alpha = 0.05$). The F-test is used to test the joint effect of the three independent variables. Further, R^2 (the coefficient of determination) was used to determine the percentage of variation in the Workforce Digital Adaptability explained by Learning Agility, Employee Resilience, and Cross-Functional Collaboration.

RESULT AND DISCUSSION

The result of data analysis of respondents who are employees of government agencies in Indonesia, shows that Learning Agility, Employee Resilience and Cross Functional Collaboration simultaneously have a positive and significant effect on Workforce Digital Adaptability. The results of the partial hypothesis testing also show that each independent variable has a positive and significant effect on Workforce Digital Adaptability, meaning that all of the hypotheses proposed in this study are confirmed. The coefficient of determination was 0.458 which means that Learning Agility, Employee Resilience and Cross-Functional Collaboration can explain 45.8% of the variation in Workforce Digital Adaptability. From the model results, it can be seen that Learning Agility has the highest effect on Workforce Digital Adaptability compared to Employee Resilience and Cross-Functional Collaboration. These results highlight that the ability of employees to learn from experience, take feedback, learn new knowledge and use that knowledge when faced with different situations is an important determinant in assisting them to adapt to technological developments and changes in digital ways of working within government agencies.

The results indicate that Learning Agility is beneficial and has a significant impact on Workforce Digital Adaptability of the government agency staff. Learning Agility is also the characteristic with the highest effect on Employee Resilience and Cross-Functional Collaboration. Research shows that the capacity of employees to learn rapidly and implement their learning in new contexts is a basis for the development of adaptation to digital transformation. Digital transformation of government agencies is a continuous process of change in information systems, applications, service processes, coordination mechanisms and competences required in the workplace that require people to adapt to these changes. In these situations, the existing knowledge and skills of the workers may not be automatically sufficient to meet the new job requirements. Therefore, employees have to keep on learning and updating their skills. Employees with high learning agility are more receptive to new experiences, feedback, new technology and changes in working methods and this allows them to adapt faster in the digital world. They are also able to draw more easily on previous

experiences as learning material when they work in other systems or job scenarios. This competence enables workers to reduce their dependence on current processes and be more open to the adoption of new ways that are better aligned with the digital needs. The strong impact of Learning Agility also shows that the digital transformation in the government sector is ultimately dependent on the ability of personnel to continuously upgrade their knowledge and skills with the development of technology. The existing technologies will not bring about ideal improvements if the workers are not prepared and equipped to understand them and to use them successfully in their jobs.

The findings indicate that Employee Resilience has a positive and significant effect on the Workforce Digital Adaptability of staff in government agencies. This study's results contribute to the understanding that people's ability to persevere, adapt and recover their work performance under pressure or adversity is a key feature for adaptation to digital transformation. The digital transformation journey is not always smooth. Workers may face difficulties in the use of new systems, changes in procedures, rising competence requirements, technological disruptions, changes in the distribution of labor and uncertainty about the effect of technology on their work. In these cases, some workers may find it difficult to adjust to change and this can be stressful for them. Employee Resilience enables professionals to react constructively to such events and challenges and not reject technology out of hand. Resilient staff is better equipped to handle stress, maintain focus, find alternative solutions to problems and persist with technology or new procedures. Resilience and the ability to bounce back is key as it may take a while to get the digital adaptation right while staff is learning new technology. Thus, Employee Resilience is the psychological capacity to be productive during the process of digital transformation. This is particularly so in the case of a government, because changes within should not disrupt the continuity of the public services. "Employees should be able to keep working and stay in service as technology and work processes change. Resilience can help workers also learn to see change as manageable and learnable, rather than as a threat to be avoided.

The findings show that Cross-Functional Collaboration is positively and significantly influencing Workforce Digital Adaptability for the employees of government agencies. The results of this study suggest that the capacity of workers to connect, share information, coordinate and solve problems collaboratively with workers from different functions or units can assist them in adapting to the digital work setting. Digital transformation in government organizations is rarely done in a silo inside one organizational unit, because digital technology and processes are intertwined with various organizational functions. For example, the digital public service system may include the public service, information technology, finance, administration, planning and other technical departments. In that case, the workers' understanding of technology and its applications is not limited to the information available in their respective departments. Cross-Functional Collaboration enables sharing of knowledge and expertise in the use of digital technologies across functional boundaries. This enables workers to learn from other colleagues with different skills. Cross-functional collaboration also allows for more rapid discovery of solutions relevant to the organization by using the different perspectives to address technological challenges. This tactic may result in improved digital learning and a decreased dependence of staff on specific problem-solving methods. Cross-Functional Collaboration can also help to break down barriers between organizational units which can be a significant barrier to digital transformation. If the knowledge and methods of work are kept separate in each unit, then the implementation of interconnected systems could be problematic. Staff may not understand the link between their own work practices and other departments. Cooperation, in contrast, develops understanding of the end-to-end digital process and adapts work style to the needs of the entirety of the

organization.

CONCLUSION

The results of this research demonstrate that Learning Agility, Employee Resilience and Cross-Functional Collaboration have a positive and significant impact on Workforce Digital Adaptability in employees of government agencies. Learning Agility has the strongest impact on Workforce Digital Adaptability, that is, the employees' ability to learn from experience, accept feedback, acquire new knowledge and apply the learning outcomes in different situations lays the foundation for improving their adaptability to digital transformation. From a practical standpoint, government agencies need to establish continuous learning programs, digital competency training, experiential learning, coaching and mentoring, knowledge sharing and opportunities for employees to participate in new tasks or projects related to digital transformation in an effort to foster Learning Agility. Besides, government agencies also need to build Employee Resilience with the help of leadership, effective change communication, work environment that promotes the learning process and aid for workers who are struggling with the process of technology adaption. Cross-Functional Collaboration also needs to be improved by creating cross-unit teams, knowledge sharing platforms, collaborative problem-solving, integration of work processes and the use of digital platforms that enable communication and coordination across organizational units.

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