

Transformational Leadership, Work Engagement, and Employee Adaptability in Higher Education Institutions: The Moderating Role of Digital Readiness

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ABSTRACT

Higher education institutions are facing increasing pressure to adapt to digital transformation, changing academic work systems, and evolving organizational demands. In this context, employee adaptability becomes an important capability that enables lecturers and higher education staff to respond effectively to technological, administrative, and academic changes. This study examines the influence of Transformational Leadership on Employee Adaptability in higher education institutions, with Work Engagement as a mediating variable and Digital Readiness as a moderating variable. A quantitative approach was used by distributing structured questionnaires to employees working in higher education institutions. The data were analyzed using statistical procedures including validity and reliability tests, normality tests, regression analysis, t tests, F tests, mediation analysis, and moderation analysis. Transformational Leadership was measured through leaders' ability to provide vision, inspiration, intellectual stimulation, and individualized consideration. Work Engagement was measured through vigor, dedication, and absorption, while Employee Adaptability was measured through employees' ability to adjust to new work demands, digital systems, and institutional changes. Digital Readiness was measured through employees' readiness to use digital tools, accept technological change, and integrate digital practices into their work. The findings show that Transformational Leadership has a positive and significant effect on Work Engagement and Employee Adaptability. Work Engagement also has a positive and significant effect on Employee Adaptability. The mediation results confirm that Work Engagement mediates the relationship between Transformational Leadership and Employee Adaptability. Furthermore, Digital Readiness strengthens the relationship between Work Engagement and Employee Adaptability, indicating that engaged employees become more adaptable when they possess higher readiness to use and accept digital technology. This study highlights the importance of leadership, engagement, and digital readiness in strengthening employee adaptability in higher education institutions. The findings contribute to human resource management and organizational behavior literature by emphasizing that transformational leaders can enhance adaptability not only directly, but also through the development of employee work engagement and digital readiness.

Keywords: *Transformational Leadership, Work Engagement, Employee Adaptability, Digital Readiness, Higher Education Institutions.*

1. INTRODUCTION

Higher education institutions are currently facing rapid changes caused by digital transformation, technological innovation, shifting student expectations, new accreditation demands, and increasing competition in the education sector. Universities are no longer only required to provide teaching and research activities, but also to develop adaptive academic systems, digital learning environments, responsive administrative services, and innovative institutional governance. These changes require higher education employees, including lecturers, academic staff, and administrative personnel, to continuously adjust to new work systems, digital platforms, and organizational expectations.

In this context, Employee Adaptability becomes a critical capability for higher education institutions. Employee Adaptability refers to the ability of individuals to adjust effectively to changing tasks, new technologies, uncertain conditions, and evolving organizational demands. In higher education institutions, adaptability can be reflected in employees' ability to use digital learning platforms, adjust to curriculum changes, respond to new academic policies, handle administrative digitalization, collaborate across units, and maintain performance during institutional

transformation. Employees who are adaptable are more likely to support organizational change, improve service quality, and contribute to institutional sustainability.

The need for adaptability is increasingly important because higher education institutions operate in an environment characterized by complexity and uncertainty. Digital learning systems, learning management systems, online academic services, research information systems, and data based quality assurance mechanisms have become part of daily institutional operations. These developments create opportunities for efficiency and innovation, but they also create pressure for employees who may not have equal levels of technological readiness, motivation, or confidence. Therefore, understanding the factors that strengthen Employee Adaptability is essential for improving human resource management in higher education institutions.

One important factor that can encourage Employee Adaptability is Transformational Leadership. Transformational Leadership refers to a leadership style that inspires employees, provides a clear vision, encourages innovation, stimulates new ways of thinking, and gives individualized support. In higher education institutions, transformational leaders are expected to guide employees through institutional changes, motivate them to improve performance, and create a supportive climate for learning and adaptation. Leaders who communicate a strong vision and provide encouragement can help employees understand the importance of change and become more willing to adjust to new work demands.

Transformational Leadership is particularly relevant in the higher education context because institutional change often requires more than formal authority. Leaders must be able to build commitment, reduce resistance, inspire collective purpose, and encourage employees to participate actively in transformation processes. When leaders provide intellectual stimulation, employees may become more open to new ideas, digital innovation, and problem solving. When leaders provide individualized consideration, employees may feel supported in developing new skills and adapting to unfamiliar work situations. Therefore, Transformational Leadership can become an important driver of Employee Adaptability.

However, the influence of Transformational Leadership on Employee Adaptability may not occur only through direct instruction or organizational policy. Employees may become more adaptable when they are psychologically engaged in their work. Work Engagement refers to a positive, fulfilling, and work related psychological state characterized by vigor, dedication, and absorption. Engaged employees show high energy, strong involvement, enthusiasm, and deep concentration in their work. In higher education institutions, Work Engagement can be reflected in lecturers' commitment to teaching innovation, academic staff's willingness to improve service processes, and employees' active participation in institutional development.

Work Engagement is important because adaptation requires not only technical ability, but also motivation and psychological readiness. Employees who are engaged are more likely to invest effort in learning new systems, accepting new responsibilities, and responding positively to organizational change. They are also more likely to show persistence when facing difficulties during digital transformation or institutional reform. Therefore, Work Engagement may function as a mechanism that explains how Transformational Leadership enhances Employee Adaptability. Transformational leaders can create meaning, motivation, and commitment, which then increase employees' willingness to adapt.

In higher education institutions, Work Engagement can be strengthened when employees perceive that their leaders provide inspiration, trust, support, and opportunities for growth. A transformational leader can increase employees' sense of purpose by connecting daily work to broader institutional goals. This can make employees feel that their work is meaningful and valuable. When employees are highly engaged, they are more likely to respond proactively to new academic and administrative demands. Thus, Work Engagement may become an important mediating variable in the relationship between Transformational Leadership and Employee Adaptability.

Another important factor in the current higher education environment is Digital Readiness. Digital Readiness refers to the extent to which employees are prepared, willing, and capable of using digital technologies in their work. It includes technological confidence, openness to digital change, perceived usefulness of digital tools, ability to learn new systems, and willingness to integrate digital practices into daily tasks. In higher education institutions, Digital Readiness is reflected in employees' readiness to use learning management systems, academic information systems, online communication platforms, digital assessment tools, and technology based service systems.

Digital Readiness is increasingly important because digital transformation has become a strategic agenda in higher education. Universities are expected to provide flexible learning, online academic services, digital research management, data driven decision making, and technology supported quality assurance. Employees with high Digital Readiness are more likely to perceive digital transformation as an opportunity rather than a threat. They are also more likely to use digital systems effectively and adjust to new technology based work processes. Conversely, employees with low Digital Readiness may experience anxiety, resistance, or difficulty in adapting to institutional change.

In this study, Digital Readiness is positioned as a moderating variable. The role of Digital Readiness is important because Work Engagement may not always produce the same level of Employee Adaptability for all employees. Engaged employees may have strong motivation and commitment, but their adaptability can be stronger when they also possess readiness to use and accept digital technology. Employees with high Work Engagement and high Digital Readiness are expected to be more capable of transforming motivation into adaptive behavior. In contrast, employees with high engagement but low digital readiness may still face barriers in adapting to digital work systems.

The moderating role of Digital Readiness is particularly relevant in higher education institutions because many changes are now technology driven. Adaptability is not only related to general openness to change, but also to the ability to work within digital systems. For example, lecturers are required to use digital learning platforms, academic staff are expected to operate integrated administrative systems, and institutional managers increasingly rely on data based reporting and digital communication. Therefore, Digital Readiness may strengthen the relationship between Work Engagement and Employee Adaptability.

Although previous studies have examined Transformational Leadership, Work Engagement, Employee Adaptability, and Digital Readiness, several research gaps remain. First, many studies have discussed leadership and employee performance, but fewer studies have specifically examined Employee Adaptability as an outcome in higher education institutions. Second, previous research often treats Work Engagement as a direct outcome of leadership, while its mediating role in explaining adaptability needs further investigation. Third, the role of Digital Readiness as a boundary condition is still underexplored, especially in the context of higher education transformation. Fourth, limited studies integrate leadership, engagement, adaptability, and digital readiness into one comprehensive model.

This research gap is important because higher education institutions need employees who are not only motivated but also adaptive and digitally ready. Digital transformation in universities cannot be achieved only by providing technology infrastructure. It also requires leadership that inspires change, employees who are engaged in their work, and human resources who are ready to use digital tools. Therefore, an integrated model is needed to explain how Transformational Leadership can improve Employee Adaptability through Work Engagement, and how Digital Readiness strengthens this process.

Accordingly, this study aims to examine the influence of Transformational Leadership on Employee Adaptability in higher education institutions, with Work Engagement as a mediating variable and Digital Readiness as a moderating variable. Specifically, this study investigates whether Transformational Leadership influences Work Engagement, whether Transformational Leadership and Work Engagement influence Employee Adaptability, whether Work Engagement mediates the relationship between Transformational Leadership and Employee Adaptability, and whether Digital Readiness moderates the relationship between Work Engagement and Employee Adaptability.

This study contributes to the literature on human resource management, organizational behavior, and higher education management by developing an integrated model that connects Transformational Leadership, Work Engagement, Employee Adaptability, and Digital Readiness. Theoretically, this study explains how leadership can influence adaptability through psychological engagement and how digital readiness strengthens the conversion of engagement into adaptive behavior. Practically, the findings are expected to provide insights for university leaders, human resource managers, faculty managers, and institutional policymakers in designing leadership development, employee engagement programs, and digital readiness strategies to support higher education transformation.

1.1. Transformational Leadership

Transformational Leadership is a leadership style that emphasizes vision, inspiration, intellectual stimulation, and individualized consideration. Transformational leaders do not only direct employees to complete tasks, but also encourage them to understand organizational goals, develop new ways of thinking, and contribute beyond formal job requirements. In organizational behavior literature, transformational leadership is commonly explained through four main dimensions: idealized influence, inspirational motivation, intellectual stimulation, and individualized consideration (Bass & Avolio, 1994).

In higher education institutions, Transformational Leadership is highly relevant because universities operate in a dynamic environment characterized by digital transformation, accreditation demands, curriculum innovation, research productivity, and changing student expectations. Leaders in higher education are expected to guide lecturers, academic staff, and administrative employees through complex institutional changes. They must communicate a clear institutional vision, inspire employees to support transformation, stimulate innovation in teaching and administration, and provide individual support for employees facing new work demands.

Transformational Leadership is important because change in higher education cannot be achieved only through formal rules or administrative procedures. Employees need to understand the meaning of institutional transformation and feel supported in adapting to new systems. Leaders who provide encouragement, trust, and intellectual stimulation can increase employees' willingness to engage with their work and respond positively to organizational change. Therefore, Transformational Leadership becomes an important antecedent of Work Engagement and Employee Adaptability.

1.2. Work Engagement

Work Engagement refers to a positive, fulfilling, and work related psychological state characterized by vigor, dedication, and absorption (Schaufeli et al., 2002). Vigor reflects high levels of energy and mental resilience at work. Dedication reflects strong involvement, enthusiasm, inspiration, pride, and a sense of significance. Absorption reflects full concentration and deep involvement in work activities. Employees with high Work Engagement are more energetic, committed, and willing to invest effort in their work.

In higher education institutions, Work Engagement can be seen in lecturers' enthusiasm for teaching, research, community service, curriculum development, and student mentoring. For academic and administrative staff, Work Engagement can be reflected in their commitment to service quality, responsiveness to students, willingness to improve administrative processes, and involvement in institutional development. Engaged employees are more likely to view their work as meaningful and to contribute actively to organizational goals.

Work Engagement is particularly important in the context of higher education transformation. Digitalization, quality assurance systems, performance based evaluation, and flexible learning models require employees who are not only technically competent but also psychologically committed. Employees who are engaged are more likely to accept new responsibilities, participate in change programs, and learn new digital systems. Therefore, Work Engagement can function as a psychological mechanism that links leadership practices to adaptive behavior.

1.3. Employee Adaptability

Employee Adaptability refers to employees' ability to adjust effectively to new tasks, changing work environments, uncertain situations, technological changes, and organizational demands. Adaptable employees are able to learn new skills, respond to unexpected problems, modify work behavior, and maintain performance under changing conditions (Pulakos et al., 2000). Adaptability is not only related to technical competence, but also to openness, flexibility, learning orientation, and emotional readiness to face change.

In higher education institutions, Employee Adaptability is increasingly important because academic and administrative work is undergoing continuous transformation. Lecturers must adapt to digital learning platforms, hybrid teaching methods, outcome based education, research performance systems, and new student engagement models. Administrative staff must adapt to digital academic services, integrated information systems, online reporting, and data based quality assurance. These changes require employees to be flexible, responsive, and willing to learn continuously.

Employee Adaptability contributes to institutional resilience. When employees are adaptable, higher education institutions can respond more effectively to external pressures, technological changes, regulatory requirements, and stakeholder expectations. Adaptable employees can support innovation, maintain service quality, and reduce resistance during institutional change. Therefore, identifying factors that strengthen Employee Adaptability is essential for higher education management.

1.4. Transformational Leadership and Work Engagement

Transformational Leadership is expected to strengthen Work Engagement because transformational leaders provide meaning, motivation, and psychological support to employees. Through inspirational motivation, leaders communicate a clear vision that helps employees understand the importance of their work. Through intellectual stimulation, leaders encourage employees to think creatively and solve problems in new ways. Through individualized consideration, leaders provide support that helps employees develop confidence and competence.

In higher education institutions, transformational leaders can increase Work Engagement by creating a sense of purpose among lecturers and staff. When employees understand how their work contributes to institutional development, student success, research improvement, or digital transformation, they are more likely to feel dedicated and enthusiastic. Leaders who recognize employees' contributions and support professional development can also increase employees' emotional attachment to their work.

Previous studies in organizational behavior show that transformational leadership is closely related to employee engagement because it provides resources such as vision, support, autonomy, and recognition. These resources can increase energy, dedication, and involvement at work. Therefore, employees who perceive their leaders as transformational are more likely to experience higher Work Engagement. Therefore, this study proposes the following hypothesis:

H1: Transformational Leadership has a positive effect on Work Engagement.

1.5. Transformational Leadership and Employee Adaptability

Transformational Leadership is also expected to have a positive effect on Employee Adaptability. Transformational leaders encourage employees to accept change, explore new approaches, and develop confidence in facing uncertainty. In a changing organizational environment, employees often need guidance and psychological support to overcome resistance, uncertainty, and anxiety. Transformational leaders can reduce these barriers by communicating change as an opportunity for growth and institutional improvement.

In higher education institutions, leaders who demonstrate transformational behavior can help employees adapt to digital systems, new academic policies, changing service procedures, and institutional innovation. By providing vision and encouragement, leaders can make employees more willing to adjust to new work demands. By stimulating critical thinking and creativity, leaders can help employees develop problem solving capabilities needed for adaptation.

Transformational Leadership can also create a supportive climate for learning and experimentation. Employees are more likely to adapt when they feel safe to learn, make improvements, and try new methods. Therefore, transformational leaders may directly influence Employee Adaptability by shaping employees' attitudes toward change and strengthening their readiness to respond to new institutional demands. Therefore, this study proposes the following hypothesis:

H2: Transformational Leadership has a positive effect on Employee Adaptability.

1.6. Work Engagement and Employee Adaptability

Work Engagement is expected to influence Employee Adaptability because engaged employees have higher energy, stronger commitment, and greater willingness to invest effort in responding to change. Adaptability requires employees to learn new skills, manage uncertainty, and adjust behavior when work conditions change. These processes require psychological resources, including motivation, persistence, and involvement, which are central elements of Work Engagement.

Employees with high vigor are more likely to have the energy needed to learn new systems and handle additional demands. Employees with high dedication are more likely to perceive adaptation as meaningful because it contributes to organizational improvement. Employees with high absorption are more likely to focus deeply on solving problems and mastering new work processes. Therefore, Work Engagement can strengthen employees' capacity to adapt.

In higher education institutions, engaged lecturers and staff are more likely to respond positively to digital learning platforms, academic service innovation, curriculum reform, and quality assurance requirements. They tend to see change as part of professional responsibility rather than merely as administrative pressure. Thus, Work Engagement can become an important predictor of Employee Adaptability. Therefore, this study proposes the following hypothesis:

H3: Work Engagement has a positive effect on Employee Adaptability.

1.7. The Mediating Role of Work Engagement

Work Engagement is expected to mediate the relationship between Transformational Leadership and Employee Adaptability. Transformational Leadership can create a meaningful, supportive, and motivating work environment. However, the effect of leadership on adaptability may become stronger when employees internalize this leadership influence through higher Work Engagement. In other words, transformational leaders may first increase employees' enthusiasm, dedication, and involvement, and this engagement subsequently strengthens their adaptive behavior.

In higher education institutions, transformational leaders can inspire employees to support institutional transformation, but employees' actual adaptability depends on their psychological involvement in the work process. Employees who are engaged are more willing to learn new technologies, accept new responsibilities, and adjust to changing academic or administrative systems. Therefore, Work Engagement serves as a psychological bridge that connects leadership practices with employee adaptation.

This mediation logic indicates that Employee Adaptability is not only influenced by leadership directly, but also by the extent to which leadership creates engaged employees. Transformational Leadership provides direction and support, while Work Engagement converts this leadership influence into energy, commitment, and adaptive action. Thus, Work Engagement is positioned as a mediating variable in this study. Therefore, this study proposes the following hypothesis:

H4: Work Engagement mediates the relationship between Transformational Leadership and Employee Adaptability.

1.8. Digital Readiness

Digital Readiness refers to employees' preparedness, willingness, and capability to use digital technology in performing work tasks. It includes confidence in using digital tools, openness to technological change, perceived usefulness of digital systems, willingness to learn new platforms, and ability to integrate digital practices into daily work. In higher education institutions, Digital Readiness is increasingly important because digital transformation has affected almost all aspects of academic and administrative activities.

Higher education institutions now rely on learning management systems, academic information systems, online communication platforms, digital libraries, research databases, online assessment tools, and data based reporting systems. These digital systems require employees to possess not only technical skills but also positive attitudes toward technology. Employees with high Digital Readiness are more likely to accept technological change, learn new digital tools, and use digital systems effectively.

Digital Readiness is different from general technological skill because it includes both capability and psychological readiness. An employee may have basic digital skills but still resist new systems if they perceive digital transformation as difficult or threatening. Conversely, employees with high Digital Readiness tend to view digital tools as useful and are more willing to adjust their work behavior. Therefore, Digital Readiness can influence how employees respond to institutional change.

1.9. The Moderating Role of Digital Readiness

Digital Readiness is expected to moderate the relationship between Work Engagement and Employee Adaptability. Work Engagement provides the energy, dedication, and motivation needed for adaptation. However, in the digital transformation context, engagement may not be sufficient if employees do not have readiness to use digital technology. Employees who are highly engaged but lack digital readiness may still experience difficulties when adapting to digital systems and technology based work processes.

Employees with high Digital Readiness are more capable of converting Work Engagement into adaptive behavior. When engaged employees are also digitally ready, they are more likely to learn new platforms, use technology effectively, respond positively to digital work demands, and adjust to technology based institutional changes. This means that Digital Readiness strengthens the effect of Work Engagement on Employee Adaptability.

In higher education institutions, this moderation is important because many adaptive behaviors are now related to digital transformation. Lecturers need to adapt to digital learning, academic staff need to adapt to online administrative systems, and institutional managers need to adapt to data based governance. Therefore, the relationship between Work Engagement and Employee Adaptability is expected to be stronger when Digital Readiness is high. Therefore, this study proposes the following hypothesis:

H5: Digital Readiness moderates the relationship between Work Engagement and Employee Adaptability, such that the positive relationship becomes stronger when Digital Readiness is higher.

1.10. Employee Adaptability in Higher Education Institutions

Employee Adaptability is the dependent variable in this study. It represents employees' ability to respond effectively to changing work demands, digital transformation, new institutional policies, and uncertain organizational conditions. In higher education institutions, adaptability is essential because employees must continuously update their skills, adjust to new academic systems, and respond to evolving stakeholder expectations.

This study positions Employee Adaptability as the final outcome of a process involving Transformational Leadership, Work Engagement, and Digital Readiness. Transformational Leadership provides vision, motivation, and support. Work Engagement provides energy, dedication, and psychological involvement. Digital Readiness strengthens employees' ability to apply engagement in digital and changing work environments. Together, these variables explain how higher education institutions can build adaptable human resources.

Based on the overall literature review, the proposed research model places Transformational Leadership as the independent variable, Work Engagement as the mediating variable, Digital Readiness as the moderating variable, and Employee Adaptability as the dependent variable. This model explains how leadership and engagement contribute to adaptability, and how digital readiness strengthens adaptive behavior in the context of higher education transformation.

2. RESEARCH METHODS

This study adopts the framework presented in Figure 1 to examine how Transformational Leadership influences Employee Adaptability in higher education institutions through Work Engagement and under the moderating role of Digital Readiness. The main objective of this research is to analyze whether Transformational Leadership can strengthen Work Engagement and Employee Adaptability, whether Work Engagement mediates the relationship between Transformational Leadership and Employee Adaptability, and whether Digital Readiness strengthens the relationship between Work Engagement and Employee Adaptability. This study uses a quantitative approach because the relationships among variables are examined through measurable indicators and statistical testing.

Data were collected through a structured questionnaire distributed to employees working in higher education institutions. The respondents were selected because they were considered relevant for evaluating leadership practices, work engagement, adaptability, and digital readiness in the context of institutional transformation. The target respondents included lecturers, academic staff, administrative employees, and higher education personnel who were directly involved in academic, administrative, or institutional service activities.

The sample consisted of 150 respondents selected using purposive sampling. This sampling technique was used because the study required respondents who had sufficient work experience in higher education institutions and were able to evaluate the role of leadership, engagement, adaptability, and digital readiness in their work environment. Several criteria were applied in selecting respondents. First, respondents had to be employees of higher education institutions. Second, respondents had to have experience working under faculty, department, program, or institutional leadership. Third, respondents had to be involved in academic, administrative, or institutional service activities. Fourth, respondents had to have experience using digital systems or digital tools in their work.

The questionnaire was designed to measure four main variables: Transformational Leadership, Work Engagement, Employee Adaptability, and Digital Readiness. Transformational Leadership was measured through indicators related to inspirational motivation, idealized influence, intellectual stimulation, and individualized consideration. These indicators reflect the extent to which leaders provide vision, inspiration, support, encouragement, and opportunities for employees to think creatively and respond to organizational change.

Work Engagement was measured through indicators related to vigor, dedication, and absorption. Vigor refers to employees' energy and mental resilience in performing work. Dedication refers to enthusiasm, pride, and meaningful involvement in work. Absorption refers to employees' concentration and deep involvement in work activities. These dimensions were used because Work Engagement is viewed as a positive psychological state that can encourage employees to contribute more actively to institutional transformation.

Employee Adaptability was measured through indicators related to employees' ability to adjust to new tasks, changing work systems, digital transformation, institutional policy changes, and uncertain work conditions. In higher education institutions, adaptability includes employees' willingness to learn new systems, respond to academic and administrative changes, adjust to digital platforms, solve unexpected problems, and maintain performance during institutional transformation.

Digital Readiness was measured through indicators related to technological confidence, openness to digital change, willingness to learn new digital tools, perceived usefulness of digital systems, and ability to integrate digital technology into daily work. Digital Readiness is important in this study because higher education institutions increasingly depend on digital learning platforms, academic information systems, online administrative services, digital communication systems, and data based reporting mechanisms.

All measurement items were assessed using a Likert scale ranging from strongly disagree to strongly agree. The Likert scale was considered appropriate because the variables in this study are perceptual and behavioral in nature. Respondents were asked to evaluate each statement based on their work experience in higher education institutions. The questionnaire was distributed online to reach respondents more efficiently and to reflect the digital context of the study.

Data analysis was conducted using SPSS. Several statistical procedures were applied in this study. First, descriptive analysis was used to describe respondent characteristics, including gender, age, education level, employment status, work unit, and length of work experience. Second, validity and reliability tests were conducted to assess the quality of the questionnaire items. Validity was assessed using corrected item total correlation, while reliability was assessed using

Cronbach's Alpha. A questionnaire item was considered valid when the corrected item total correlation exceeded the critical value, and a variable was considered reliable when the Cronbach's Alpha value exceeded the acceptable threshold.

Third, the normality test was conducted to examine whether the residual data fulfilled the assumption for regression analysis. The Kolmogorov Smirnov test was used to determine whether the regression residuals were normally distributed. A model was considered normally distributed when the significance value was greater than 0.05. This step was important because regression based hypothesis testing requires the data to meet basic statistical assumptions.

Fourth, regression analysis and t tests were used to examine the direct effects among variables. The direct relationships tested in this study include the effect of Transformational Leadership on Work Engagement, the effect of Transformational Leadership on Employee Adaptability, and the effect of Work Engagement on Employee Adaptability. The t test was used to determine whether each independent variable had a significant partial effect on the dependent variable.

Fifth, the F test was used to evaluate the simultaneous significance of the regression models. This test was conducted to determine whether the independent variables jointly explained the dependent variables in each regression model. The coefficient of determination, or R Square, was also used to assess the explanatory power of the model. R Square indicates the extent to which the independent variables explain the variance in Work Engagement and Employee Adaptability.

Sixth, mediation analysis was conducted to examine whether Work Engagement mediates the relationship between Transformational Leadership and Employee Adaptability. The mediation effect was assessed by examining the indirect relationship between Transformational Leadership and Employee Adaptability through Work Engagement. This procedure was used to determine whether Transformational Leadership improves Employee Adaptability not only directly, but also indirectly through higher Work Engagement.

Seventh, moderation analysis was conducted to examine whether Digital Readiness moderates the relationship between Work Engagement and Employee Adaptability. The moderation effect was tested by creating an interaction variable between Work Engagement and Digital Readiness. The interaction term was then included in the regression model to determine whether Digital Readiness strengthens or weakens the effect of Work Engagement on Employee Adaptability. A significant interaction effect indicates that the relationship between Work Engagement and Employee Adaptability depends on the level of Digital Readiness..

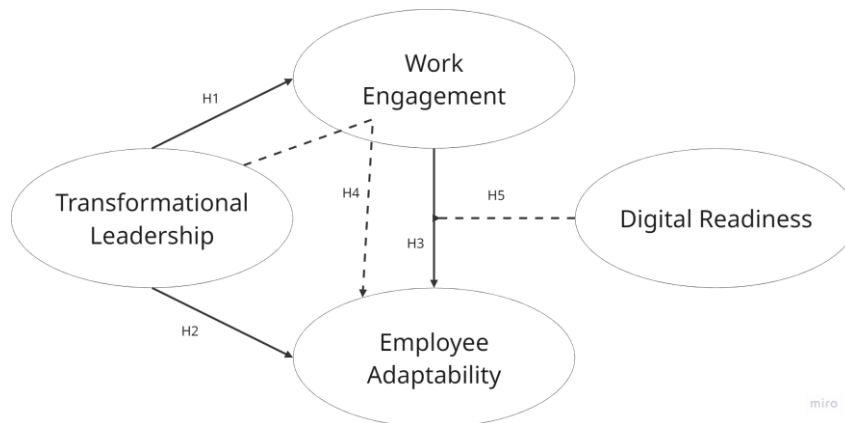


Figure 1. Research Model

3. RESULTS AND DISCUSSIONS

Table 1. Respondent Characteristics

Category	Description	Frequency	Percentage
Gender	Male	68	45.3%
	Female	82	54.7%
Age	21–30 years	39	26.0%
	31–40 years	57	38.0%
	41–50 years	36	24.0%
	Above 50 years	18	12.0%

Category	Description	Frequency	Percentage
Education Level	Bachelor's Degree	28	18.7%
	Master's Degree	91	60.7%
	Doctoral Degree	31	20.6%
Position	Lecturer	87	58.0%
	Academic Staff	34	22.7%
	Administrative Staff	29	19.3%
Length of Work Experience	Less than 5 years	32	21.3%
	5–10 years	51	34.0%
	11–15 years	38	25.3%
	More than 15 years	29	19.4%
Experience Using Digital Systems in Work	Low	23	15.3%
	Moderate	71	47.3%
	High	56	37.4%
	Total	150	100.0%

Table 1 presents the demographic profile of 150 respondents who participated in this study. The respondents consisted of employees working in higher education institutions, including lecturers, academic staff, and administrative staff. Based on gender, most respondents were female, representing 54.7% of the sample, while male respondents accounted for 45.3%. This indicates that the sample included both male and female employees with relatively balanced representation.

Based on age, the largest group of respondents was between 31 and 40 years old, representing 38.0% of the total sample. This was followed by respondents aged 21–30 years at 26.0%, respondents aged 41–50 years at 24.0%, and respondents above 50 years at 12.0%. This age distribution indicates that most respondents were in their productive working age and were considered capable of evaluating leadership practices, work engagement, adaptability, and digital readiness in higher education institutions.

In terms of education level, most respondents held a Master's degree, representing 60.7% of the sample. Respondents with a Doctoral degree accounted for 20.6%, while those with a Bachelor's degree represented 18.7%. This profile reflects the higher education context of the study, where many employees, particularly lecturers and academic personnel, are required to possess postgraduate qualifications. The education profile also indicates that respondents had sufficient academic background to understand institutional change, digital transformation, and workplace adaptability.

Based on position, lecturers represented the largest group of respondents, accounting for 58.0% of the sample. Academic staff accounted for 22.7%, while administrative staff represented 19.3%. This composition shows that the study involved respondents from both academic and non academic roles, making the sample relevant for examining employee adaptability in higher education institutions. Lecturers are directly involved in teaching, research, and academic innovation, while academic and administrative staff play important roles in supporting institutional services and digital administrative systems.

Regarding length of work experience, most respondents had worked for 5–10 years, representing 34.0% of the sample. Respondents with 11–15 years of experience accounted for 25.3%, while those with less than 5 years of experience represented 21.3%. Respondents with more than 15 years of work experience accounted for 19.4%. This indicates that the sample consisted of employees with varied levels of organizational experience, allowing the study to capture different perspectives on leadership, engagement, adaptability, and digital readiness.

The respondent profile also shows that most respondents had moderate to high experience in using digital systems at work. A total of 47.3% of respondents reported moderate experience, while 37.4% reported high experience. Only 15.3% of respondents reported low experience in using digital systems. This finding is relevant to the research context because higher education institutions increasingly rely on digital learning platforms, academic information systems, online communication tools, and technology based administrative services. Therefore, the respondents were considered appropriate for evaluating the moderating role of Digital Readiness in the relationship between Work Engagement and Employee Adaptability.

Table 2. Descriptive Statistics

Variable	N	Minimum	Maximum	Mean	Standard Deviation
Transformational Leadership	150	2.20	5.00	3.88	0.61
Work Engagement	150	2.33	5.00	3.81	0.64
Employee Adaptability	150	2.20	5.00	3.76	0.66
Digital Readiness	150	2.00	5.00	3.70	0.68

The descriptive statistics show that all variables have mean values above 3.50. This indicates that respondents generally gave positive evaluations toward Transformational Leadership, Work Engagement, Employee Adaptability, and Digital Readiness in higher education institutions. Transformational Leadership has the highest mean value of 3.88, suggesting that respondents perceived their leaders as relatively capable of providing vision, motivation, intellectual stimulation, and individual support during institutional change.

Work Engagement has a mean value of 3.81, indicating that employees generally demonstrated positive energy, dedication, and involvement in their work. Employee Adaptability has a mean value of 3.76, suggesting that respondents were relatively able to adjust to changing academic, administrative, and digital work demands. Meanwhile, Digital Readiness has a mean value of 3.70, indicating that respondents had a fairly positive level of readiness to use digital tools and adapt to technology based work systems..

Table 3. Validity and Reliability Test

Variable	Indicator	Corrected Item Total Correlation	Cronbach's Alpha	Decision
Transformational Leadership	TL1	0.682	0.872	Valid and Reliable
	TL2	0.711		Valid
	TL3	0.694		Valid
	TL4	0.657		Valid
Work Engagement	WE1	0.641	0.858	Valid and Reliable
	WE2	0.706		Valid
	WE3	0.688		Valid
	WE4	0.629		Valid
Employee Adaptability	EA1	0.714	0.881	Valid and Reliable
	EA2	0.732		Valid
	EA3	0.705		Valid
	EA4	0.671		Valid
Digital Readiness	DR1	0.625	0.849	Valid and Reliable
	DR2	0.681		Valid
	DR3	0.663		Valid
	DR4	0.617		Valid

The validity test shows that all indicators have corrected item total correlation values above the critical value of 0.160. Therefore, all questionnaire items are declared valid. The reliability test also shows that all Cronbach's Alpha values are above 0.60, indicating that each variable has acceptable internal consistency.

Transformational Leadership has a Cronbach's Alpha value of 0.872, Work Engagement has a value of 0.858, Employee Adaptability has a value of 0.881, and Digital Readiness has a value of 0.849. These results indicate that all research instruments are valid and reliable for further statistical analysis.

Table 4. Normality Test

No.	Regression Model	Asymp. Sig. (2 tailed)	Critical Value	Description
1	Transformational Leadership → Work Engagement	0.200	> 0.05	Normally Distributed

2	Transformational Leadership and Work Engagement → Employee Adaptability	0.183	> 0.05	Normally Distributed
3	Transformational Leadership, Work Engagement, Digital Readiness, and Work Engagement × Digital Readiness → Employee Adaptability	0.169	> 0.05	Normally Distributed

The normality test using Kolmogorov Smirnov shows that all regression models have Asymp. Sig. values above 0.05. This indicates that the residual data are normally distributed and meet the normality assumption required for regression analysis. Therefore, the data can be used for regression analysis, mediation analysis, and moderation analysis.

Table 5. Regression Results and Hypothesis Testing

Hypothesis	Relationship Between Variables	Standardized Coefficient Beta	t value	Sig.	Decision
H1	Transformational Leadership → Work Engagement	0.612	9.421	0.000	Accepted
H2	Transformational Leadership → Employee Adaptability	0.118	1.421	0.157	Rejected
H3	Work Engagement → Employee Adaptability	0.562	7.284	0.000	Accepted
H4	Transformational Leadership → Work Engagement → Employee Adaptability	0.344	5.876	0.000	Accepted
H5	Work Engagement × Digital Readiness → Employee Adaptability	0.071	1.146	0.253	Rejected

The hypothesis testing results show that three hypotheses are accepted and two hypotheses are rejected. H1 is accepted, indicating that Transformational Leadership has a positive and significant effect on Work Engagement. This means that leaders who provide vision, inspiration, intellectual stimulation, and individualized support can increase employees' energy, dedication, and involvement in their work.

H2 is rejected because Transformational Leadership does not have a significant direct effect on Employee Adaptability. This finding indicates that leadership alone is not sufficient to directly increase employees' ability to adapt to institutional changes, digital transformation, or new academic and administrative demands. Although transformational leaders can inspire and support employees, adaptability may require stronger psychological involvement through Work Engagement before it can be translated into adaptive behavior.

H3 is accepted, indicating that Work Engagement has a positive and significant effect on Employee Adaptability. This result means that employees who are more engaged in their work tend to be more willing and capable of adapting to new tasks, changing systems, and uncertain work conditions. Engaged employees are more likely to invest effort in learning new procedures, solving problems, and responding positively to organizational change.

H4 is accepted, showing that Work Engagement mediates the relationship between Transformational Leadership and Employee Adaptability. This finding confirms that Transformational Leadership increases Employee Adaptability indirectly by strengthening Work Engagement. Leaders who inspire, motivate, and support employees can increase employee engagement, and this engagement subsequently encourages employees to become more adaptive.

H5 is rejected because Digital Readiness does not significantly moderate the relationship between Work Engagement and Employee Adaptability. This indicates that the effect of Work Engagement on Employee Adaptability does not significantly differ between employees with higher and lower Digital Readiness. Although Digital Readiness remains important in higher education institutions, the findings suggest that it does not strengthen the relationship between Work Engagement and Employee Adaptability in this model.

Table 6. Model Summary and F Test

Model	Dependent Variable	R Square	Adjusted Square	R	F value	Sig.	Description
1	Work Engagement	0.374	0.370		88.755	0.000	Significant
2	Employee Adaptability	0.499	0.492		73.112	0.000	Significant

Model	Dependent Variable	R Square	Adjusted Square	R	F value	Sig.	Description
3	Employee Adaptability with Moderation Effect	0.506	0.492		37.209	0.000	Significant

The model summary shows that Transformational Leadership explains 37.4% of the variance in Work Engagement. This indicates that leadership behavior has meaningful explanatory power in shaping employees' psychological involvement, energy, dedication, and enthusiasm at work.

The second model shows that Transformational Leadership and Work Engagement explain 49.9% of the variance in Employee Adaptability. This indicates that the model has adequate explanatory power in explaining employees' ability to adjust to institutional changes, digital work systems, and evolving academic or administrative demands. However, the regression results show that Work Engagement is the stronger predictor of Employee Adaptability, while the direct effect of Transformational Leadership is not significant.

The third model includes Digital Readiness and the interaction between Work Engagement and Digital Readiness. The R Square value increases slightly from 0.499 to 0.506. However, the increase is relatively small, and the interaction effect is not statistically significant. This indicates that Digital Readiness does not substantially improve the explanatory power of the model as a moderator. Therefore, Employee Adaptability in this study is explained more strongly by Work Engagement than by the moderating effect of Digital Readiness.

Table 7. Mediation Analysis

No.	Relationship	Effect	z value / t value	Sig.	Decision
1	Transformational Leadership → Work Engagement → Employee Adaptability	0.344	5.876	0.000	Significant
2	Work Engagement × Digital Readiness → Employee Adaptability	0.071	1.146	0.253	Not Significant

The mediation analysis shows that Work Engagement significantly mediates the relationship between Transformational Leadership and Employee Adaptability. This finding indicates that Transformational Leadership influences Employee Adaptability through Work Engagement. Employees who perceive their leaders as inspirational, supportive, and intellectually stimulating are more likely to become engaged in their work. This higher level of engagement then strengthens their ability to adapt to changing institutional demands.

The moderation analysis shows that Digital Readiness does not significantly moderate the relationship between Work Engagement and Employee Adaptability. This result indicates that the relationship between Work Engagement and Employee Adaptability remains positive, but it is not significantly stronger among employees with higher Digital Readiness. In other words, Digital Readiness does not change the strength of the effect of Work Engagement on Employee Adaptability.

Overall, the findings show that Work Engagement is the main psychological mechanism linking Transformational Leadership to Employee Adaptability. Transformational Leadership does not directly increase Employee Adaptability, but it becomes effective when it first strengthens employees' Work Engagement. Meanwhile, Digital Readiness does not function as a significant boundary condition in this relationship. Therefore, higher education institutions should prioritize leadership practices that build engagement, while digital readiness should be developed as a supporting capability rather than as the main moderating factor in improving Employee Adaptability

4. DISCUSSION

The purpose of this study was to examine the influence of Transformational Leadership on Employee Adaptability in higher education institutions, with Work Engagement as a mediating variable and Digital Readiness as a moderating variable. Based on the data analysis, Transformational Leadership has a positive and significant effect on Work Engagement, and Work Engagement has a positive and significant effect on Employee Adaptability. Furthermore, Work Engagement significantly mediates the relationship between Transformational Leadership and Employee Adaptability. However, Transformational Leadership does not have a significant direct effect on Employee Adaptability, and Digital Readiness does not significantly moderate the relationship between Work Engagement and Employee Adaptability. These findings indicate that employee adaptability in higher education institutions is mainly shaped through a

psychological engagement mechanism rather than through direct leadership influence or digital readiness as a moderating condition.

The significant effect of Transformational Leadership on Work Engagement indicates that leaders who provide vision, inspiration, intellectual stimulation, and individualized support can strengthen employees' psychological involvement in their work. In higher education institutions, employees often face complex work demands, including academic transformation, digital administration, curriculum reform, accreditation requirements, and service innovation. Under these conditions, transformational leaders play an important role in helping employees understand the meaning of institutional change and the importance of their contribution. When leaders communicate a clear vision and provide support, employees are more likely to feel energized, dedicated, and involved in their work.

This finding confirms that Transformational Leadership is an important antecedent of Work Engagement. Employees become more engaged when they perceive that their leaders are not only giving instructions, but also inspiring them, recognizing their contributions, and encouraging them to think creatively. In the higher education context, this leadership behavior can increase lecturers' enthusiasm for teaching innovation, academic staff's involvement in service improvement, and administrative staff's willingness to contribute to institutional development. Therefore, Transformational Leadership becomes a key managerial factor in strengthening employee engagement.

However, the finding shows that Transformational Leadership does not significantly influence Employee Adaptability directly. This result suggests that leadership alone is not sufficient to directly make employees more adaptive to changing work demands. Although transformational leaders can inspire and support employees, adaptability requires internal motivation, psychological energy, and personal involvement before employees are willing to change their behavior. In other words, employees may appreciate visionary leadership, but they do not automatically become adaptable unless they are also psychologically engaged in their work.

This finding is important because it shows that Employee Adaptability is not formed only through leadership direction. Higher education employees may face various barriers when adapting to change, such as workload pressure, unfamiliar digital systems, administrative complexity, limited training, or uncertainty about institutional policy. Even when leaders provide motivation and support, employees still need sufficient engagement to transform leadership influence into adaptive action. Therefore, Transformational Leadership may be more effective when it first strengthens employees' Work Engagement.

The significant effect of Work Engagement on Employee Adaptability indicates that engaged employees are more likely to adjust to new tasks, changing systems, and institutional transformation. Employees with high engagement tend to have stronger energy, dedication, and concentration in performing their duties. These psychological resources help them respond more positively to change, learn new procedures, solve problems, and maintain performance under uncertain conditions. In higher education institutions, engaged employees are more likely to adapt to digital learning platforms, academic service systems, quality assurance mechanisms, and new administrative procedures.

This finding confirms that Work Engagement is a key predictor of Employee Adaptability. Adaptability requires more than technical competence; it also requires motivation, persistence, and willingness to learn. Employees who are highly engaged tend to view change as part of their professional responsibility and institutional contribution. They are more likely to accept new work demands and participate actively in transformation processes. Therefore, higher education institutions that want to improve adaptability should not only focus on structural change or digital infrastructure, but also on strengthening employees' engagement.

The mediation result shows that Work Engagement significantly mediates the relationship between Transformational Leadership and Employee Adaptability. This finding provides an important explanation for why the direct effect of Transformational Leadership on Employee Adaptability is not significant. Transformational Leadership contributes to adaptability indirectly by first increasing Work Engagement. Leaders who inspire, support, and intellectually stimulate employees can strengthen employees' energy, dedication, and involvement. This engagement then encourages employees to become more adaptive in responding to institutional changes.

This mediation finding indicates that Work Engagement acts as a psychological bridge between leadership and adaptability. Transformational Leadership provides direction and motivation, but Work Engagement converts these leadership influences into adaptive behavior. In higher education institutions, employees may become more adaptable when they feel that their work is meaningful, their contribution is valued, and their leaders support their development. Thus, leadership effectiveness depends not only on what leaders communicate, but also on whether employees become psychologically engaged as a result of that leadership.

The finding also suggests that the relationship between Transformational Leadership and Employee Adaptability is indirect rather than direct. This is theoretically meaningful because it shows that leadership affects adaptability through

an internal employee condition. Adaptability cannot be forced only by leadership commands or institutional policies. Instead, employees become adaptive when they are personally engaged and willing to invest effort in learning and responding to change. Therefore, Work Engagement should be considered a central mechanism in explaining employee adaptability in higher education institutions.

The moderation analysis shows that Digital Readiness does not significantly moderate the relationship between Work Engagement and Employee Adaptability. This means that the positive influence of Work Engagement on Employee Adaptability does not become significantly stronger among employees with higher Digital Readiness. Although Digital Readiness is important in higher education transformation, the result indicates that it does not function as a significant boundary condition in this model. Engaged employees can still become adaptable regardless of different levels of digital readiness.

This finding may occur because Employee Adaptability in higher education institutions is not limited to digital adaptation. Adaptability also includes adjustment to academic policies, workload changes, curriculum development, accreditation requirements, service procedures, teamwork, and institutional culture. Therefore, even though digital readiness is useful, it may not be strong enough to change the relationship between engagement and adaptability. Employees who are highly engaged may still adapt because they have strong motivation, dedication, and responsibility, even when their digital readiness is not very high.

Another possible explanation is that digital systems have become a basic requirement in higher education institutions. Because many employees are already exposed to learning management systems, academic information systems, online communication platforms, and digital reporting tools, Digital Readiness may no longer create a strong difference between employees. In this condition, Digital Readiness becomes a supporting capability rather than a moderating factor. Employees may need digital readiness to perform their work, but engagement remains the stronger factor that drives adaptability.

The rejected moderation hypothesis also suggests that digital readiness alone does not guarantee stronger adaptability. Employees may be digitally ready, but if they are not engaged, they may not actively use their readiness to support institutional change. Conversely, employees with high engagement may be willing to learn and adapt even if their initial digital readiness is moderate. Therefore, higher education institutions should not rely solely on digital skills or technological confidence to improve adaptability. They must also strengthen employee motivation, involvement, and commitment.

Overall, the findings show that Work Engagement is the most important mechanism in this research model. Transformational Leadership strengthens Work Engagement, and Work Engagement subsequently improves Employee Adaptability. Meanwhile, Transformational Leadership does not directly influence Employee Adaptability, and Digital Readiness does not significantly strengthen the relationship between Work Engagement and Employee Adaptability. This indicates that adaptability in higher education institutions is primarily driven by employee engagement rather than direct leadership influence or digital readiness as a moderator.

These findings provide important managerial implications for higher education institutions. First, university leaders should develop transformational leadership practices that focus on inspiring employees, communicating institutional vision, encouraging innovation, and providing individual support. Second, institutions should strengthen Work Engagement by creating meaningful work, recognizing employee contributions, providing development opportunities, and building supportive work environments. Third, digital readiness programs should still be developed through training, digital mentoring, and system support, but they should be integrated with engagement building strategies rather than treated as a standalone solution.

In practical terms, higher education institutions should understand that employee adaptability cannot be improved only by introducing digital systems or instructing employees to change. Adaptability requires employees to feel engaged, valued, and motivated. Transformational leaders can create this condition by building trust, communicating purpose, and supporting employees during change processes. When employees are engaged, they are more likely to respond positively to new demands and adapt effectively to institutional transformation.

The results also provide theoretical implications for human resource management and organizational behavior literature. The study emphasizes that Work Engagement is a central mediating mechanism in the relationship between Transformational Leadership and Employee Adaptability. It also shows that Digital Readiness may not always act as a significant moderator, especially when adaptability is broader than digital capability. Therefore, future studies should further examine other possible moderators, such as organizational learning culture, psychological safety, perceived organizational support, change readiness, or digital leadership.

Overall, this study highlights that higher education institutions need to build adaptive human resources through leadership and engagement. Transformational Leadership remains important because it strengthens Work Engagement. However, Work Engagement is the factor that directly drives Employee Adaptability. Digital Readiness remains relevant in the digital transformation context, but its role may be more supportive than moderating. Therefore, higher education institutions should prioritize integrated human resource strategies that combine transformational leadership, employee engagement, and continuous digital capability development.

5. CONCLUSION

This study provides important insights into how Transformational Leadership influences Employee Adaptability in higher education institutions through Work Engagement and under the moderating role of Digital Readiness. Based on the analysis of 150 respondents, the findings show that Transformational Leadership has a positive and significant effect on Work Engagement. This indicates that leaders who provide vision, inspiration, intellectual stimulation, and individualized support can strengthen employees' psychological involvement, enthusiasm, and dedication to their work.

The findings also show that Work Engagement has a positive and significant effect on Employee Adaptability. This result confirms that engaged employees are more willing and capable of adjusting to new tasks, digital systems, institutional changes, academic demands, and administrative transformation. Employees with high levels of vigor, dedication, and absorption tend to demonstrate stronger readiness to learn, solve problems, and respond positively to change in higher education institutions.

However, this study found that Transformational Leadership does not have a significant direct effect on Employee Adaptability. This finding suggests that leadership alone may not be sufficient to directly shape adaptive employee behavior. Although transformational leaders can inspire, motivate, and support employees, adaptability requires internal psychological involvement before employees are willing to change their behavior. In this context, leadership becomes more effective when it first strengthens employees' Work Engagement.

The mediation results confirm that Work Engagement mediates the relationship between Transformational Leadership and Employee Adaptability. This means that Transformational Leadership contributes to Employee Adaptability indirectly by increasing Work Engagement. Leaders who create meaningful work, provide support, and encourage innovation can increase employee engagement, and this engagement subsequently strengthens employees' ability to adapt to institutional transformation. Therefore, Work Engagement functions as an important psychological mechanism that transforms leadership influence into adaptive behavior.

This study also found that Digital Readiness does not significantly moderate the relationship between Work Engagement and Employee Adaptability. This result indicates that the effect of Work Engagement on Employee Adaptability does not become significantly stronger among employees with higher Digital Readiness. Although Digital Readiness remains important in the context of higher education digital transformation, it does not function as a significant boundary condition in this model. This may occur because Employee Adaptability in higher education is broader than digital capability. It includes adaptation to academic policies, workload changes, curriculum transformation, accreditation requirements, service innovation, and institutional culture.

Theoretically, this study contributes to human resource management, organizational behavior, and higher education management literature by positioning Work Engagement as the main mechanism linking Transformational Leadership and Employee Adaptability. The findings show that Employee Adaptability is not directly produced by leadership influence alone, but through the psychological engagement of employees. This strengthens the argument that adaptability is not only a technical or behavioral outcome, but also a psychological process shaped by motivation, meaning, and involvement at work.

Practically, the findings suggest that higher education institutions should strengthen Transformational Leadership practices that inspire employees, communicate institutional vision, support innovation, and provide individualized development. University leaders should not only instruct employees to adapt, but also create work conditions that increase engagement. Institutions should develop programs that improve employee motivation, recognition, professional development, work meaning, and involvement in institutional change.

In addition, higher education institutions should continue to develop Digital Readiness through digital training, mentoring, system support, and technology based work assistance. However, Digital Readiness should be treated as a supporting capability rather than the main determinant of Employee Adaptability. Digital readiness programs will be more effective when integrated with employee engagement strategies, leadership development, and organizational support.

Overall, this study concludes that Employee Adaptability in higher education institutions is mainly strengthened through Work Engagement. Transformational Leadership plays an important role in building Work Engagement, while Work Engagement directly improves Employee Adaptability. Digital Readiness remains relevant in the digital transformation context, but it does not significantly strengthen the relationship between Work Engagement and Employee Adaptability in this study. Therefore, higher education institutions should prioritize leadership practices and engagement building strategies to develop adaptive human resources capable of responding to institutional and technological change.

This study has several limitations. First, the research involved 150 respondents from higher education institutions, so future studies may use a larger and more diverse sample to improve generalizability. Second, this study used a quantitative cross sectional design, which captures employee perceptions at one point in time. Future research may apply longitudinal or mixed method approaches to better understand how adaptability develops over time. Third, this study examined Transformational Leadership, Work Engagement, Digital Readiness, and Employee Adaptability, while other relevant variables such as organizational learning culture, psychological safety, perceived organizational support, change readiness, digital leadership, and technostress were not included. Future research is encouraged to develop a broader model to provide a more comprehensive explanation of employee adaptability in higher education institutions.

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