AI Adoption, Digital Capability, and Sustainable Performance in Higher Educational Institutions of Southern Punjab, Pakistan

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Abstract

Artificial intelligence (AI) is changing the structure of organizations, the knowledge process, and performance systems in various industries, including the higher education sector. There is a growing adoption of AI-based technologies in universities and other higher educational institutions (HEISs), which aim to improve teaching, research, administration, and strategic decision-making. Nevertheless, the efficiency of the AI adoption is not limited to technological implementation, yet the creation of the digital capabilities to support the intelligent systems usage by the institutions in the most efficient and sustainable way. The paper explores the connection between AI adoption and digital capability, and sustainable performance in institutions of higher education. It examines how institutional digital capability such as technological infrastructure, data management expertise, and digitally competent personnel has been used in advancing the efficient utilization of AI and leading to long-term academic, operational, and environmental sustainability. The paper uses the resource-based view and the perspective of digital transformation as a conceptualization of digital capability as a strategic organizational resource that may mediate or enhance the effect of adoption on institutional performance outcomes of AI. The research paper is relevant to the existing body of literature on digital transformation in education in that sustainable performance in higher education is not only achieved through technological investment, but also through the adoption of AI systems with institutional learning capacity, governance systems, and culture of innovation. The results provide information to policy-makers and academic leaders who wish to use AI technologies to develop sustainable and competitive systems of higher education.
Keywords: Artificial Intelligence; Digital Capability; Sustainable Performance; Digital Transformation; Institutional Innovation; Academic Sustainability

Introduction

The artificial intelligence (AI) has immense impact on organizational practices, knowledge system, and performance framework in a variety of fields through its global growth. Traditionally considered the producers of knowledge and the intellectual growth, higher educational institutions (HEIs) are becoming active users of the digital transformation processes. The adoption of AI in higher education is part of the broader technological changes in the focus on automation, data-driven decision-making, and smart learning spaces (Tambe et al., 2019; Lodhi & Khan, 2025). Colleges are currently using AI technologies to evaluate their students, predict, automate their administration, design customized learning platforms, and manage research. The fact that AI is not only a technological advancement but

also a structural phenomenon that changes the way institutions operate, compete, and maintain their performance in the long-term means that the technology has the potential to change the operation of the institution (Luckin et al., 2016; Asghar, 2025).

The results of the AI implementation in higher education are disproportionate regardless of the rapid technological adoption. Certain institutions are vastly increasing their efficiency, research productivity and student engagement, whereas others find it extremely difficult to turn the investment in technology into any kind of performance improvement (Selwyn, 2019). This difference implies that effects of AI adoption depend on the institutional factors that determine the role of technology in organizational processes. Specifically, the aspect of digital capability has become an important determinant of whether the adoption of AI can result in sustainable performance enhancements. Digital capability is the capacity of an institution to purchase, implement, operate, and keep on updating digital technologies to meet strategic objectives (Acemoglu & Restrepo, 2020). It consists of technological infrastructure, digital skills of faculty and staff, data governance systems, and organizational processes that facilitate innovation and learning (ul Haq et al., 2025).

Universities hold a distinct role in the context of digital transformation due to the fact that its two types of work teaching, research and knowledge sharing are closely related to information processing and intellectual exchange. Increasingly, AI technologies have been applied to traditional functions, such as creating adaptive learning, automated academic administration, and refined research analytics (Holmes et al., 2019). Nevertheless, the success of such technologies is related to the institutional preparedness and digital literacy. Colleges with limited access to digital access and technology skills as well as organizational adaptability tend to have challenges in adopting AI in their work and education systems. Subsequently, the adoption of technology cannot only ensure better performance in institutions. Rather, the idea of sustainable performance will be achieved when AI systems are backed by the digital capabilities that allow them to evolve and learn continuously, as well as innovate (Vial, 2019).

The notion of sustainable performance has become a topic of growing concern within the higher education research literature as a result of heightened accountability, efficiency, and long-term resilience of the institution pressure. Sustainable performance goes beyond the short-term savings in efficiency to long-term academic performance, financial stability, environment responsibility, and social impact (Lozano et al., 2015; Asghar, 2025b). Not only universities are supposed to provide high-quality education but also to be efficient, responsible in managing the resources, and develop the society. The use of digital transformation, especially the AI, has been extensively propagated as a tool that can be used to reach these goals. Nevertheless, technological modernization is not the only way to achieve sustainability in higher education, it needs institutional capacity to respond to technological change without compromising educational quality and organizational stability (Aljarboa et al., 2025).

AI adoption and sustainable performance are thus multidimensional and intricate relationships. The AI technologies enhance the decision-making accuracy, the automatization of the routine, the knowledge management processes, and lead to the institutional efficiency (Brynjolfsson & McAfee, 2017). In academics, AI is used in assistance of personalized learning, predictive student retention methods, and sophisticated research collaboration tools. These applications improve academic performance and administration. But these benefits are long term only when the institution can sustain, upgrade and strategically operate technological systems. The lack of digital capacity can result in short-term productivity benefits and not long-term performance changes with AI adoption (Javed et al., 2020).

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Digital capability operates as a facilitating process through which there is a linkage between technological adoption and organization performance. Organizations that are highly digital have cohesive digital infrastructure, well trained human resources and governance frameworks that enable innovation. The ability provides universities with the ability to constantly develop AI systems, educate personnel and learners on digital skills, and evolve organizational procedures in line with technological transformation. Subsequently, digital capability stands out as a more effective way of AI adoption and sustaining institutional development. On the other hand, institutions of small digital capacity can have problems in implementation such as underutilization of technology, resistance to change and poor digital fragmentation (Salleh et al., 2022).

This can be theorized to go back to the theoretical basis of the resource-based view (RBV) of the firm which highlights the fact that organizational performance is attributed to valuable, rare and inimitable resources (Barney, 1991). Digital capability is one of such strategic resources in the context of higher education, as they allow the institutions to use technological innovations successfully. The availability of AI technologies might be universal, yet the ability to incorporate them in teaching, research and administration is institutional. Thus, the digital capability is what defines whether AI adoption creates sustainable competitive advantage in the education sector (Michel-Villarreal et al., 2023).

Besides the RBV, digital transformation theory also adds to the knowledge base of organizational structures and performance systems remodeled by the technological change. Digital transformation is the process of integrating digital technologies into every part of the organizational activity that brings fundamental shifts in the processes, culture, and value-creation (Vial, 2019). Digital transformation in universities is seen through the redesign of university curricula, research processes and administrative processes. One of the core elements of this shift is AI implementation, and its success will rely on the institution capacity to deal with change and promote innovations. Digital capability offers the organizational basis on which such transformation can take place (Altememy et al., 2023).

The increased focus on higher education sustainability also points to the significance of the interconnection between the adoption of AI and the formation of digital capabilities. The universities are progressively under pressure to be in tandem with sustainable development goals, foster positive environmental values, and provide equitable access to education (Leal Filho et al., 2019). The AI technologies can contribute to these goals by optimizing the allocation of resources, enhancing energy management, and making learning inclusive. Nonetheless, these advantages must be systematically governed digitally and tactically planned. Digital capability is what makes the use of technology add to the long-term institutional resilience and not to short-term operational efficiency.

Empirical studies of digital transformation in higher education have initiated the investigation of the connection between the adoption of technology and institutional performance, but the moderating or facilitating effect of digital capability has received little attention. Most of the existing studies concentrate on the technological implementation and do not analyze the impact of institutional capacity (Selwyn, 2019). Consequently, it is necessary to have integrative frameworks, which indicate the interaction of AI adoption and organizational capabilities in terms of their effects on sustainable performance.

The research paper fills this gap by exploring the concept of AI adoption, digital capability and sustainable performance in higher educational institutions of Southern Punjab, Pakistan. The study offers an organizational wide framework of learning how technological innovation can be converted to

long term organizational success by abstracting digital capability as a strategic resource of an organization. The study is added to the growing body of research on the digital transformation of education which notes that sustainable performance as an outcome can be nurtured by the interposition of technology, human capital, and the processes of the organization.

With the modern higher education setting where technology keeps evolving very fast, competition is high across the world, and accountability is on the rise, institutions should no longer focus on the purchase of technology but rather develop capabilities. The introduction of AI is one of the opportunities to optimize the performance at the academic and administrative level, yet the success will depend on the capacity of the institution to integrate, operate, and create digital systems constantly. This relationship is necessary to understand how to develop effective digital transformation strategies to promote sustainable institutional development and long-term educational excellence.

Literature Review

The increasing trend of introducing artificial intelligence (AI) into the field of higher education has sparked a lot of academic curiosity because it is likely to alter the functioning of the institution, pedagogy, and performance results in the long run. The use of AI technologies allows smart data processing, administrative processes automation, and dynamic learning environments to address the needs of individual students. The early research on artificial intelligence makes it clear that intelligent systems improve, or provide better decision-making and information processing, including detection of patterns and generating predictive information (Russell & Norvig, 2021). These capabilities are used within institutions of higher learning in applications like automated assessment, academic analytics, research data management, and institutional planning. Since universities have been under pressure to be more efficient, expand access, and preserve academic quality, adoption of AI has become a response to the complicated operations and education issues (Mohammed et al., 2025).

The literature about the educational technology focuses on the transformative perspectives of AI-based learning environments. It is thought that AI can be used to facilitate individualized learning by customizing the contents of instruction based on the needs and performance trajectories of a specific learner (Rose Luckin, 2016). With intelligent tutoring systems, predictive analytics systems, and automated feedback systems, institutions customize the learning experience, enhancing the learning outcomes. On the same note, literature on AI in education focuses on its ability to increase the decision-making process in institutions by computing behavioral and performance data to predict at-risk students and maximize resource distribution (Holmes et al., 2019). These advances indicate that the use of AI is not limited to transportation within the field of technology experimentation, but rather an institutional effectiveness and innovation tool.

Regardless of these advantages, skeptical approaches highlight that technology use is not a sufficient measure to translate to better educational achievements. Digital technologies exist in the intricate social and organizational contexts that are conditioned by the institutional culture, the system of governance, and human potentialities. The effect of the technological innovation in digital education research has it that the effects of technological innovation are closely dependent on the manner in which the digital tools are incorporated by the institutions in the current practices and systems (Selwyn, 2019). The universities vary greatly in terms of infrastructure, digital literacy, and organizational preparedness, and this aspect provides the difference in the results of AI

implementation. This implies that the success of AI implementation depends on institutional factors that define the manner in which technology is implemented and used (Altememy et al., 2023).

As a reaction to such difficulties, researchers pay more and more attention to the notion of digital capability as one of the necessary features of successful technological integration. Digital capability is the capacity of an organization to install, operate, and keep advancing digital technologies in line with the strategic goals. It includes technological framework, digital capabilities, data governance structures, and organizational learning processes that facilitate innovation and change (Soei et al., 2019). In post-secondary education, digital capability encompasses provision of sophisticated technological platforms, faculty and staff expertise in digital applications and institutional policies that facilitate technology experimentation and ongoing innovation. Educational institutions that have high digital capacities are in a better position to incorporate AI in teaching, research and administration effectively (Mohammed et al., 2025).

The vast body of literature about digital transformation also justifies the influence of digital capability on organizational results. Digital transformation is traditionally seen as the inclusion of digital technologies in every sphere of organizational activity, which results in a radical change in processes, structure, and the process of value creation (George et al., 2014). Digital transformation in the field of higher education includes reorganization of the curriculum, redesigning administrative practices, and greenfield knowledge creation. The use of AI is one of the main elements of this change that can be successful, contingent upon the capacity of the institution to embrace technological change. Digital capability creates the structural and functional platform that facilitates change through enabling institutions to incorporate new technology, acquire digital capabilities and address technological innovation and strategic objectives (Allam et al., 2025).

The strategic management theory provides further understanding of the correlation between performance outcomes and digital capability. According to the resource-based view, the performance of an organization relies on valuable and inimitable resources that could provide a competitive advantage (Barney, 1991). Digital capability is such a resource in the context of higher education since it defines the effectiveness of institutions to take advantage of technological innovations. Although AI technologies become more and more widespread in the education systems, the staffs have different abilities to combine and operate them. Universities having good digital potentials can use AI to make teaching more effective, management more efficient, and research more productive. Therefore, the digital capability enhances the performance effect of adoption of AI (Shwedeh, 2024).

The dynamic capability theory also justifies how the institutions embrace the change in technology in environments that change very rapidly. Based on this vision, the success of an organization in the long run is determined by its capacity to feel opportunities, to capture innovations and to make a transformation in the structure of operations (David Teece, 2018). The use of AI in higher education is a prospect with an institutional need to adjust in several aspects, starting with governance and skills of the workforce in relation to technology infrastructure. Digital capability facilitates the process of adapting through institutions being able to learn through technological experimentation, refining processes and constantly developing competencies. The absence of such adaptive capacity can lead to less than significant or temporary gains in the uptake of technology (Erdmann & Toro-Dupouy, 2025).

The connection between technological innovation and productivity is also a question that has been extensively discussed in the larger literature of the digital economy. It has been shown that the digital

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technologies enhance the performance through the scale of information processing, operational cost reduction, and the ability to make decisions based on the data (Brynjolfsson et al., 2019). These mechanisms are specifically applicable in the sphere of higher education, where the institutional performance largely relies on knowledge management and resources distribution. AI-processing analytics can be used to enhance enrollment forecasts, course scheduling optimization and research cooperation. However, there is also evidence that productivity benefits are conditional on complementary organizational investment, such as training of workforce and redesigning of processes. This supports the digital capability as a prerequisite on the achievement of the positive outcomes of technological change (Filho et al., 2024).

According to empirical studies, digital capability is also becoming a mediator or moderator of the relationship between technological adoption and organizational performance (ul Haq et al., 2025; Salleh et al., 2022; Altememy et al., 2023). Those institutions that build systems of integrated digital infrastructures, governance systems, and human competencies have greater chances of achieving long-term performance gains. On the other hand, companies that implement technology without developing an institutional capacity usually face implementation issues that curtail efficacy. This trend shows that digital capability is an enabling factor that links technological innovation to sustainable institutional results (Okunlaya et al., 2022).

Despite the fact that some of the research on the topic has offered insights into the adoption of AI, digital transformation, and sustainability in higher education, they are frequently discussed individually. The implementation of technologies is a subject matter in many studies, but the ability to analyze organizational capabilities to utilize it effectively is lacking. Others explore sustainability projects without minding the technological systems that are behind the initiatives. Such fragmentation impairs the knowledge on how technological and organizational variables interact to each other in order to influence institutional performance. Relatively underdeveloped are integrative approaches that consider the adoption of AI, digital capability, and sustainable performance.

The literature thus indicates some theoretical foundation where AI adoption creates technological potential, digital capability facilitates the effective use of same and sustainable performance is the long term performance of this interaction. Those universities that manage to align technological innovation with institutional capacity better succeed in ensuring long-term effects of improvement of academic quality, operational efficiency, and social impact. This relationship is critical to understanding how to come up with effective digital transformation strategies in institutions of higher learning.

Methodology

Research Design

The research design used in this study was a quantitative study to investigate the nature of the relationships between AI adoption, digital capability and sustainable performance in higher institutions of learning. The cross-sectional survey technique was applied since the respondents were surveyed at one point in time. It was a suitable design to test theoretical relationships and analyze the predictive role of the adoption of AI and digital capability on sustainable performance. The other objective of the study was to discover the structural relationships of the variables by the use of statistical modeling.

Population and Sampling

The study population was the academic and administrative personnel of higher educational institutions in South Punjab, Pakistan. These people were chosen due to the fact that they were directly engaged in the functioning of institutions, the process of digital transformation, and the process of technology adoption. Multi stage sampling method was used. The institutions were first chosen according to their involvement with digital learning as well as technological infrastructure. The second stage was the selection of respondents; to make sure the respondents are representative of various departments, the stratified random sampling was applied to get the respondents of the teaching faculty, IT employees, and administrative staff. Four hundred and fifty questionnaires were sent and three hundred and fifty valid responses obtained and analyzed in terms of exclusion of incomplete and inconsistent responses. The sample size was deemed to be good enough to perform multivariate statistical analysis and structural equation modeling.

Data Collection Procedure

The structured questionnaire was used to collect primary data. The questionnaire was administered both in hard copy and in digital copy to enhance response rates. A pilot test was carried out on a small sample of respondents before entire distribution to check the clarity, reliability as well as relevancy of the items used in measuring the desired results. The pilot study helped in revising questions that were ambiguous to elicit as well as refining their wording.

The event involved voluntary participation and anonymity and guarantee of confidentiality. The process of data collection lasted several weeks and, thus, there was enough time to carry out follow-ups and check the responses.

Measurement of Variables

Constructs were measured using scales that were previously validated, but had slight contextual adjustments. A five-point Likert scale was used to record the responses based on a strongly disagree to strongly agree. The adoption of AI was determined using measures that depicted the level of institutional utilization of artificial intelligence technologies in academic business and administration as well as in decision-making. Digital capability was measured using items that described technological infrastructure, digital capacity, and integration of systems, and institutional preparedness to digital transformation. The performance in the sense of sustainability was assessed using measures concerning the long-term institutional effectiveness, operational efficiency, environmental responsibility, and social impact. Standardized measurement scale was used, which guaranteed construct validity and comparison with previous studies.

Data Analysis Techniques

The statistical software was used in data analysis. To analyze demographic features and distribution patterns of the responses, first, the descriptive statistics has been calculated. Cronbach alpha was used to evaluate reliability of measurement scales to provide internal consistency of the constructs.

The analysis through correlation was performed to study the connections between AI adoption, digital capability, and sustainable performance. Structural equation modeling (SEM) was utilized in order to test the hypothesized relationships and structural effects. The choice of this technique was due to the

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fact that simultaneous measurement and structural model could be assessed and thus a complete analysis of both direct and indirect correlations amongst variables would be achieved.

Validity and Reliability

Construct validity was measured by factor loading and model fit measures. Convergent validity was tested by analyzing the strength of indicators relationship with the constructs. The use of Cronbach alpha coefficients was used to determine reliability and all the coefficients were above acceptable levels thus showing satisfactory internal consistency. The research design was also made more reliable and valid by the pilot study and the use of the existing measurement instruments.

Ethical Considerations

The research was carried out in strict ethical standards. The subject explained to the respondents the nature of the study and their right to drop out any time. No personal data were gathered and data were employed only in the academic context. This was all voluntary and all participants had to provide an informed consent before the data was collected.

Data Analysis and Findings

Analysis of data was done to study the correlation between AI adoption and digital capability and sustainable performance in higher educational institutions. There were 350 possible responses which were analyzed. The statistical tests involved the descriptive statistics, reliability analysis, correlation analysis and structural equation modeling to confirm the hypothesized relationships.

Descriptive Statistics

The descriptive statistics were obtained to get to know the overall distribution of responses and the central tendency of the study variables. The outcomes revealed that respondents were generally reporting moderate and high AI adoption, digital capability and sustainable performance in their institutions. The average scores were above the middle of the scale implying that majority of the institutions have already embarked on digital transformation and technological integration processes.

Table 1: Descriptive statistics of the study variables (n = 350)

Variable	Mean	Standard Deviation	Minimum	Maximum
AI Adoption	3.78	0.64	2.10	4.95
Digital Capability	3.85	0.59	2.30	4.88
Sustainable Performance	3.91	0.62	2.25	4.97

The comparatively small values of the standard deviation imply the consistency of responses, and it can be assumed that the participants had similar perceptions of what institutional digital transformation and performance outcomes are.

Reliability Analysis

Cronbach alpha was used to carry out reliability analysis to determine internal consistency of measurement scales. All the constructs were very reliable and had a value over the recommended value of 0.70. This implied that the measurement items were steady and constant. The findings

corroborated all the constructs as they possessed high internal consistency to be further statistically analyzed.

Table 2: Reliability Statistics

Construct	Number of Items	Cronbach's Alpha
AI Adoption	6	0.89
Digital Capability	7	0.91
Sustainable Performance	6	0.88

Correlation Analysis

Correlation analysis was also done to test the strength and direction of relationships of the main variables. The result indicated that there were strong positive coefficients between all constructs. There was a significant positive relationship between AI adoption and digital capability and sustainable performance. On the same note, digital capability was closely linked with sustainable performance.

Table 3: Correlation Matrix

Variable	AI Adoption	Digital Capability	Sustainable Performance
AI Adoption	1.00	0.64**	0.58**
Digital Capability	0.64**	1.00	0.71**
Sustainable Performance	0.58**	0.71**	1.00

**Note: **indicates $p < 0.01$

According to the correlation outcomes, those institutions that have more AI adoption also have better digital capability and enhanced sustainable performance. The most notable correlation was between sustainable performance and digital capability which means that institutional digital preparedness is very critical in delivering long-term results.

Evaluation of the Measurement Model

Factor loadings, composite reliability and average variance extracted (AVE) were used to measure the measurement model. All the loading of factors were greater than the suggested limit of 0.60 and this affirmed the reliability of the indicators. The composite reliability values were more than 0.70 and AVE values were more than 0.50 which means sufficient convergent validity.

Table 4: Measurement Model Results

Construct	Composite Reliability	AVE
AI Adoption	0.92	0.61
Digital Capability	0.93	0.65
Sustainable Performance	0.90	0.60

Structural Model Results

Structural equation modelling was undertaken to evaluate both the direct and indirect relationship between the variables. Good model fit indices indicated good model adequacy. The model demonstrated acceptable goodness of fit, indicating that the proposed structural relationships were supported by the data.

Table 5: Model Fit Indices

| Fit Index	Recommended Value	Obtained Value
Chi-square/df	< 3.0	2.11
CFI	> 0.90	0.95
TLI	> 0.90	0.94
RMSEA	< 0.08	0.056

Hypothesis Testing

The findings of the structural model revealed strong positive impacts of the use of AI on the digital capability and sustainable performance. Sustainable performance was also influenced positively greatly by digital capability. Moreover, the association between AI adoption and sustainable performance was mediated by digital capability, to some extent. The results indicated that AI adoption significantly enhanced institutional digital capability, which in turn improved sustainable performance outcomes.

Table 6: Structural Path Coefficients

Path	Beta	t-value	p-value	Result
AI Adoption → Digital Capability	0.67	10.45	<0.001	Supported
AI Adoption → Sustainable Performance	0.29	4.12	<0.001	Supported
Digital Capability → Sustainable Performance	0.55	8.76	<0.001	Supported

Figure 1: Graphical Form of SEM Outcomes

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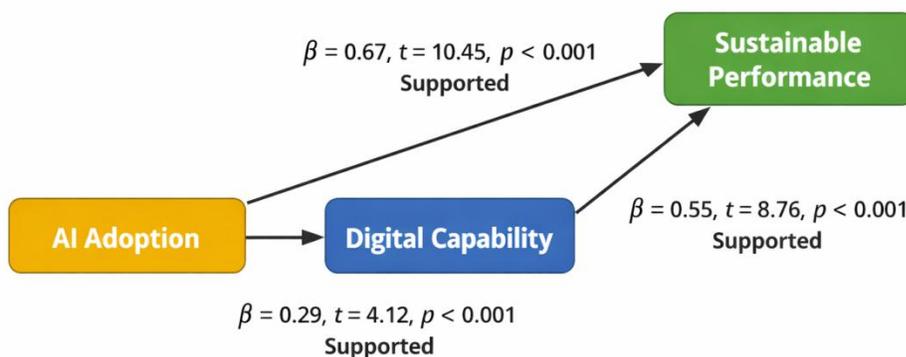
Mediation Analysis

Mediation analysis was performed to examine whether digital capability acted as an intervening variable between AI adoption and sustainable performance. The indirect effect of AI adoption on sustainable performance through digital capability was statistically significant. The mediating role of digital capability was significant and stronger than the direct one, which means that the impact was indirect. This implies that one of the main ways through which AI adoption will enhance sustainable performance is by enhancing institutional digital infrastructure and competencies.

Table 7: Mediation Effect

Relationship	Direct Effect	Indirect Effect	Total Effect
AI Adoption → Sustainable Performance	0.29	0.37	0.66

Findings

Some significant findings were made through the analysis. First, rates of AI adoption and digital capability were moderate to high in institutions of higher learning of Southern Punjab. Second, the use of AI provided considerable digital capacity, which implies that the integration of technology makes the institutions more ready and efficient. Third, both AI implementation and digital capability had a positive impact on sustainable performance, which underscores the significance of digital transformation to the long-term success of the institution. Digital capability became one of the most important mechanisms between the adoption of AI and sustainable performance. Places that successfully managed to make the adoption of AI a solid digital infrastructure, technical expertise, and united systems recorded better sustainability. This observation underlines that technology is not a standalone solution but institutional ability development is a necessity to ensure performance gains. The findings had a solid empirical evidence to support the research model and proved the strategic significance of digital capability in changing AI investments into institutional performance sustainability.

Conclusions

This paper has studied the connections between AI adoption and digital capability as well as sustainable performance in higher education institutions of Southern Punjab and has given empirical evidence of the inter-relations between the two. The results have shown that AI implementation can contribute to the digital capability of the institution to a great extent and that it has a direct positive impact on sustainable performance. More to the point, digital capability was observed to act as one of the most important mediating factors, which means that the performance gains of AI adoption are achieved to a large extent, through the establishment of an institutional digital preparedness and competence.

The findings bring out the fact that in order to be successful in the long term, the adoption of technology is not enough in order to succeed in institutions. Rather, sustainable performance can be achieved when the institutions are successful at embedding AI technologies into their operational mechanisms and building the digital infrastructure and capabilities required to sustain them. Colleges and universities that invest in digital capability are more likely to be receptive to technological change and enhance efficiency in their operations and attain sustainable results. On the whole, the analysis supports the conclusion that digital transformation with the help of the adoption of AI and the

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development of its capabilities is one of the main drivers of institutional sustainability within the modern environment of higher education.

Policy Implications

The results of the research have significant implications to the policymakers and institutional leaders of higher education. To begin with, the policy frameworks need to promote the introduction of AI technologies but institutional development of digital capability should also be encouraged. The focus needs to be on investments in digital infrastructure, employee training, and technological integration, so that the use of AI technologies could be virtually realized. Second, institutions of higher learning are advised to develop strategic plans in digital transformation that ensure that the implementation of technology is geared towards long-term sustainability. Third, the policymakers are recommended to promote capacity-building programs that can empower academic and administrative employees with digital competencies since human capital is a significant factor in the use of technology. Lastly, the innovation ecosystems that will promote constant technological learning and adaptation should be encouraged by national and institutional policies. Through the adoption of technology and development of capability, the policymakers will be able to promote sustainable performance of higher educational institutions in an ever-increasing digitalized environment.

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