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Article

A Quantitative Study of the Impact of Project Management on AI and Cloud Computing Projects

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Abstract: This research investigates the impact of project management practices on the adoption of cloud computing and artificial intelligence (AI) technologies, focusing on different dimensions of project management such as project planning, risk management, and stakeholder engagement. The study collected and analyzed data from 250 stakeholders. According to the study's findings, project management practices significantly affect how well AI and cloud computing initiatives turn out. The results also showed that the adoption of AI and cloud computing technologies is significantly impacted by project management approaches. Finally, the study found that the main project management aspect influencing the adoption of cloud computing and AI is stakeholder involvement. The results have important implications for policymakers and project managers, providing direction on how to match project management practices with new technology developments. Recommendations for future research are also provided to refine frameworks for AI and cloud adoption
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INTRODUCTION

Project management is the use of certain information, abilities, approaches, and strategies to accomplish quantifiable and defined project objectives, such as successful project completion. The five stages of a typical project management life cycle are planning, execution, monitoring and control, closure, and initiation. In contrast to general management, project management is specifically related to the goals and time-bound objectives that are accomplished within the confines of a project, on a specific timeframe, as opposed to a continuous one. Companies that use project management techniques have a remarkable 92% success rate in achieving project goals. This figure demonstrates how effective organized project management techniques can be in reaching intended results. (Donato & Greenberg, 2025). An important advancement in the optimization of resource allocation, risk mitigation, and decision-making procedures in intricate project contexts is the incorporation of artificial intelligence (AI) into project management systems. The enormous

amount of data and the rapid rate at which choices must be made in modern project settings make traditional project management approaches—which frequently rely on manual procedures and linear models—inadequate. This study examines how artificial intelligence (AI) may greatly increase the effectiveness, precision, and responsiveness of project management systems, particularly via the application of machine learning techniques, neural networks, and natural language processing (Nabeel, 2024)

One innovative technology that has the potential to have a big impact on the globe is cloud computing. It provides several benefits to its consumers and companies (Tanwar et al., 2022). Big data and cloud computing brought about significant advances in project management by enabling better decision-making, higher productivity, and more scalability characteristics. Advanced technology solutions are necessary for the administration of complex projects since they improve operational efficiency and speed up the implementation of project management decisions. These technologies are used by project managers to swiftly analyze large datasets, improving their capacity to assess risks, allocate resources, and measure the success of the project (Mahmud et al., 2025).
Achieving program success in the quickly changing world of hybrid cloud settings depends on efficient project prioritization. By improving project selection accuracy, mitigating human decision-making biases, and optimizing resource utilization, AI integration raises the probability of accomplishing strategic goals. Prioritization tools powered by AI will more easily connect with hybrid cloud systems, utilizing the entire range of cloud services. Real-time data processing, improved scalability, and more effective resource management will all be made possible by this integration. As a consequence, businesses will find it easier to implement AI technologies and maximize their advantages without causing major interruptions to current processes (Saha, 2019). Considering this, the present study has the following aim and objectives.

1.2 Aims and Objectives:

This research aims to examine the role of project management in the success of AI and cloud computing projects. Based on this aim, the study has the following specific objectives.
To examine the impact of project management practices on the success of AI and Cloud Computing Projects.
To investigate the impact of project management practices on the adoption of AI and cloud computing technologies.
To reveal the key project management dimensions that contribute to the adoption of AI and cloud computing.
To provide practical recommendations for improving project management practices to enhance the adoption and success of AI and cloud computing projects.

2. Literature Review:

2.1 Role of Project Management in Emerging Technology Projects

Attah et al. (2024) suggested that initiatives fueled by technology play a critical role in propelling product creation and market expansion, especially in sectors where creativity and adaptability are essential. Agile approaches, cross-functional teamwork, and iterative development processes are essential components of effective project management for technology-driven ventures. Managing the innovation lifecycle, controlling risk, and allocating resources as efficiently as possible should be prioritized, as they are essential to accomplishing strategic goals in technology-led initiatives. The capacity to modify project management techniques is becoming ever more important as the technological landscape continues to change quickly. Adaptive project management techniques are not only advantageous but also necessary in a technologically advanced environment where change occurs constantly. Project managers may successfully traverse the difficulties of the current complicated market environment by utilizing agile approaches, encouraging continuous learning, and embracing technology breakthroughs like automation and AI.
Westenberger et al. (2022) imply that a number of technological and non-technology elements can influence whether an AI project succeeds or fails. The results show that one cause of failure may be technical problems. It can be as challenging to estimate or predict other elements, such as the real complexity of a use case or model instability. Before beginning an AI project, managers are recommended to take a candid and transparent look at their organization's resources and skills as well as their own expectations and knowledge about AI. Appropriate steps should be taken to reduce these risks following an assessment of any potentially significant concerns. Waqar et al. (2023) carried out a study to determine the key components that make cloud computing installation successful. According to the results, there are four basic structures that are essential to a project's successful completion. These include "communications and coordination; planning and organizational success; and cost, quality, and time management". Project managers and other interested parties can use the findings as a guide to successfully implement and use cloud computing technologies. The use of cloud computing technologies can improve communication and coordination among team members, increase project efficacy, and improve project strategy.

2.2 Key Dimensions of Project Management in AI and Cloud Projects

Burdakov and Ahn (2025) suggested that project management frameworks must change as AI transforms sectors. AI projects will be better managed and guaranteed to be in line with social values and the sustainable advancement of technology by using flexible, adaptable, and ethical techniques. The report suggested incorporating "ethical issues into project

planning and execution, implementing iterative and AI project management frameworks, and integrating data lifecycle management". Miller (2025) aims to include an AI viewpoint into a project management standard with a focus on avoiding moral dilemmas—harms, losses, and damages—in AI projects. The framework offers a number of strategies for preventing legal and regulatory infractions. First, projects should set up "legal, ethical, and data governance frameworks" at the AI plan stage. A proactive approach to risk mitigation and the use of controls should thus be taken into consideration at the AI usage stage. Lastly, it is important to plan ahead and implement privacy and security measures at every step of the project. The framework identifies many areas that require openness in order to prevent the system from continuing to function as a "black box." At the appropriate stages of the AI lifecycle, testing, auditing, and risk mitigation are all in line.

Akbar et al. (2024) determine the success elements that have a direct impact on the cloud platform's worldwide software development operations. According to MLR's studies, the main elements influencing Cloud-based Global Software Development (CGSD) include time to market, ongoing development, financial restructuring, and scalability. According to the mapping results, the most important knowledge area among the examined success determinants that requires practitioners' particular attention for CGSD initiatives to be successful is procurement. Ghosh and Prasad (2025) outlined a number of difficulties that project managers face while overseeing cloud-based initiatives. Since most project managers stated that cloud solutions were less safe than on-premise systems, technical obstacles included cloud security concerns. The workforce's skills gap was a major worry as well since companies had trouble finding experts in cloud computing. Furthermore, the majority of project managers experienced a delayed migration process and discovered that it was more efficient to migrate in phases as opposed to attempting to move everything at once. Cost management was a major issue at the corporate level, and project managers had no clear method to account for unplanned costs throughout deployment.

2.3 Project Planning and Its Impact on Technology-Driven Projects

Project success is more strongly impacted by project planning, which is a crucial component of project management. Nevertheless, poor planning and project strategy result in a lack of business support, wasteful resource utilization, inaccurate estimates, inadequate scope management, and elevated risks. According to earlier research, clearly stated project plans are crucial to the project's success (Adzmi and Hassan, 2018). Khan et al. (2019) examine how project planning affects project success and present project risk as a moderator. According to the study, project planning has a beneficial effect on the success of the project. By highlighting the importance of risk (organizational, technical, people, project management, stakeholder, and economic) and how it affects the link between project planning and project success, the paper assists IT companies. Essentially, the success of a project is largely influenced by project planning, and this connection is somewhat moderated by total project risk. Planning is necessary for a project to be completed successfully, and risk assessment is essential to the outcome.

Vujović et al. (2020) suggested that many businesses that engage in IT projects allocate half of their budget to the project and schedule its phases of realization in advance of its execution. The findings of this study support the notion that an established project plan and sufficient project planning are necessary for the IT project to succeed. An essential component of the IT project's success is the risk management initiative. The IT-based initiatives may enhance corporate performance and eventually have an effect on global socioeconomic dynamics. The sociodynamics may occur outside through relationships with customers and the digital environment in which we live, work, and engage, as well as inside through the way business function. Khan et al. (2024) examined how project planning affected the outcome of the project. The study's findings showed a high positive correlation between project success and project planning. The results of the study showed that project planning significantly improves project success. The study suggests that the project's policymakers create guidelines for the project planning that ought to be implemented.

2.4 Risk Management in AI and Cloud Implementations

Despite the alluring advantages of cloud-based business operations, many organizations are unable to use this technology due to security concerns, cloud attacks, and privacy concerns. To guard against security concerns in "cloud services, security risk management, the use of current security risk management approaches, and security risk standards" should be linked with business process stages, according to the findings and conclusions (Abioye et al, 2021). In order to facilitate the broad use of cloud computing, risk management is crucial. In order to adopt suitable measures, users must be aware of the dangers involved in the process of transferring information and applications. However, because of the special features of the cloud and customers' reliance on the provider of cloud services for "risk control, risk management in cloud computing" is different from risk management in a typical computing environment. Based on the relative relevance of the migration goals, the proposed framework allows users to identify hazards and analyze them using a semi-quantitative method. Based on certain migration circumstances, this enables customers to make precise judgments about cloud migration (Islam et al., 2017).

Wisakanto et al. (2025) suggested that due to their quickly developing abilities and the possibility of devastating harm, contemporary general-purpose AI systems provide an urgent risk-control dilemma since

we are unable to accurately estimate their dangers. The research offers a probabilistic risk assessment methodology for AI that brings methodologically sound, systematic analysis to a sector that was previously defined by "selective testing, fragmented techniques, and implicit assumptions about risk priorities". Using a systematic, aspect-oriented approach, researchers have demonstrated how probabilistic approaches may be effectively modified to assess AI systems, building on well-established methodologies from reliable sectors. Campos et al. (2025) offer a framework for risk management in AI. Four elements make up this framework, which is based on current AI risk management techniques as well as well-established risk management procedures in other industries: “risk identification, risk analysis and evaluation, risk treatment, and risk governance”. The explicit establishment of a quantitative risk tolerance is one of the essential components required by this approach and is absent from existing AI risk management techniques. While well-established, high-risk sectors have explicit regulatory frameworks outlining acceptable risk levels, the AI sector does not yet have such guidelines. As a result, rather than defining their risk tolerance openly, AI developers now implicitly do so through mitigation decisions.

2.5 Stakeholder Engagement and Its Influence on Project Outcomes

Rabechini et al. (2022) examine how effective stakeholder management is at improving project outcomes. Results show that stakeholder management improves project outcomes in terms of budget and schedule, and they also support the idea that a project management office (PMO) increases the impact of stakeholder management on these outcomes. The purpose of this research is to reaffirm PMO and stakeholder management as essential components of effective project management. According to the study, relational and prescriptive stakeholder management enhances project outcomes by raising the possibility that projects will be completed on schedule and within budget. Additionally, it confirmed that PMO amplifies this beneficial impact.

Huzzard (2021) examined the dynamics of the connection between impact metrics and stakeholder participation within the framework of a sizable, multidisciplinary, worldwide project looking into fundamental questions in working life research. All things considered, the QuInnE project's experiences do support the assertion that stakeholder participation is necessary for tangible results. However, the project's results also highlight some of the main obstacles related to high-stakes stakeholder involvement tactics. Additionally, the paper makes the case that effect and stakeholder involvement should be viewed as a process or collection of subprocesses that are connected by distinct delivery systems and based on certain fruitful interactions.

Vrečko et al. (2023) clarify the impact of projects and the success of project management. The results demonstrate how stakeholder participation and project management procedures have a significant beneficial impact on project management success. As a result, these elements have a major impact on the success of the project as well as the general expansion of HG SMEs. Interestingly, there is no discernible impact of project management system assistance on these success variables. Through its effect on project success, stakeholder participation indirectly promotes an organization’s growth, highlighting its importance. These observations highlight the need for sound "project management frameworks for managers and policymakers", among other stakeholders.

2.6 Research Gap:

Leading technical advancements that are radically altering the intelligence framework across several sectors include cloud computing and next-generation AI. When these two technologies are combined, they offer unparalleled processing power, scalability, and flexibility, which makes it easier to develop increasingly complex “AI models and applications. Real-time data analysis and decision-making” are made possible by cloud computing, which provides the necessary infrastructure and resources for training, implementing, and monitoring AI algorithms at scale (Shah, 2018). Cloud frameworks that incorporate AI and machine learning have the potential to open up new avenues for optimization and innovation. But despite these developments, there are still many obstacles to overcome. In the face of changing cyber threats, improved security measures are essential to protecting sensitive data and guaranteeing user privacy. Businesses may leverage the potential of the cloud to open up new possibilities and keep a competitive advantage in a market that is always changing by adopting developing technology, resolving security issues, and adjusting to changing regulatory frameworks (Rehan, 2024). Even while risk management is currently a part of general management, it has a number of competitive advantages thanks to the potential for AI management. High-end technology in the form of different artificial intelligence tools must be certified, according to modern risk management. Many commercial organizations continue to mistrust AI integration efforts, and some are failing. Even though risk management has long been a major project management concern, AI projects have not yet fully embraced this practice (Biolcheva and Valchev, 2022). This points to a critical gap: there is little empirical data on how the efficacy of project management, certain aspects, and practices directly influence the uptake and success of cloud and AI efforts. Therefore, this study aims to investigate the role of project management practices in the success of AI and cloud computing projects.

2.7 Research Hypothesis:

H01: Project management practices have no significant impact on the success of AI and cloud computing projects.

H11: Project management practices have a significant impact on the success of AI and cloud computing projects.
H02: Project management practices do not significantly impact the adoption of AI and cloud computing technologies.
H12: Project management practices significantly impact the adoption of AI and cloud computing technologies.
H03: No specific project management dimensions significantly contribute to the adoption of AI and cloud computing.
H13: Certain project management dimensions significantly contribute to the adoption of AI and cloud computing.

3. METHOD

The process of planning, carrying out, and evaluating research investigations is referred to as research methodology. It is a crucial step in the research process since it directs the gathering, evaluation, and interpretation of data. The selection of a research technique may significantly affect the study's conclusion since it is essential to guarantee the validity, reliability, and generalisability of research findings (Bahishti, 2022).

3.1 Data collection method

In any scientific exploration, the data collection method is crucial. It is a fundamental instrument of sound research. The most popular techniques for gathering primary data include databases, questionnaires, interviews, and observation techniques (Mazhar et al., 2021). The study relied on a ***quantitative survey*** method to collect primary data from the respondents. Survey questionnaires were forwarded to the target respondents, and their responses were gathered.

3.2 Instrument:

One way to get information from respondents is by using a questionnaire. It is a productive method of gathering data (Kazi and Khalid, 2012). This study relied on a ***5-point Likert scale-based questionnaire*** for the collection of data from respondents.

3.3 Target Population

The target demographic that the study aims to investigate is the population of interest or target population (Majid, 2018). The population for the study consisted of ***project managers, IT managers/technology leads, software engineers/developers, data scientists/AI specialists, cloud infrastructure specialists and business analysts***.

3.4 Sampling Technique:

A portion of the population chosen to be representative of the broader population is called a "sample." The researchers must take a sample since we are unable to investigate the full population (Acharya et al., 2013). The study used ***purposive sampling*** for the collection of data.

3.5 Sample Size:

In any empirical study, when drawing conclusions about the population from a sample is the aim, the sample size is an important consideration (Taherdoost, 2017). The sample size for this study consists of ***250 participants.***

3.6 Data Analysis Tool:

When conducting a study, statistical approaches are used for planning, designing, gathering data, analyzing, creating useful interpretations, and communicating the results. The statistical analysis lends meaning to the meaningless numbers (Ali and Bhaskar, 2016). This study relied on ***IBM SPSS*** for the analysis of data.

4. Results:

4.1 Reliability Test:

To test the reliability of questionnaire items, Cronbach's Alpha was calculated. The outcome are as follows:

Reliability Statistics	
Cronbach's Alpha	N of Items
.925	27

Table 1: Reliability Statistics:

The 27-item Cronbach's alpha rating of 0.925 suggests that the questionnaire has great internal consistency. This implies that the survey's items accurately gauge the fundamental concepts of technology adoption and project management.

4.2 Demographic Responses:

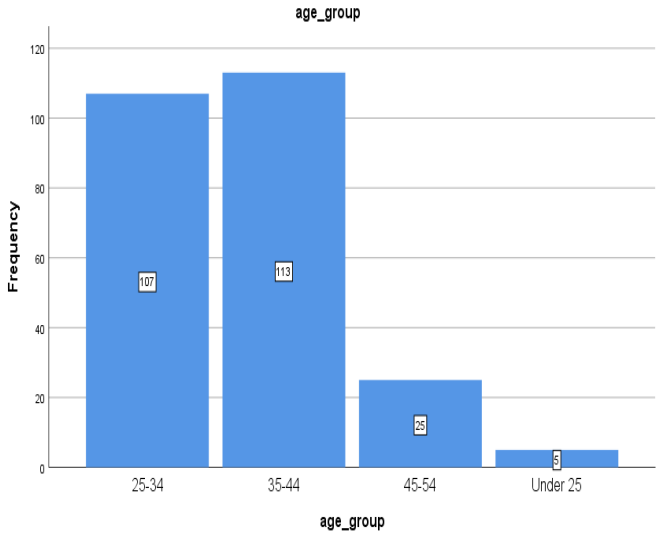

Figure 1: Age of the Respondents:

The majority of respondents were aged 35–44 (45.2%), followed closely by those aged 25–34 (42.8%). A smaller portion fell in the 45–54 age group (10%), while only 2% were under 25.

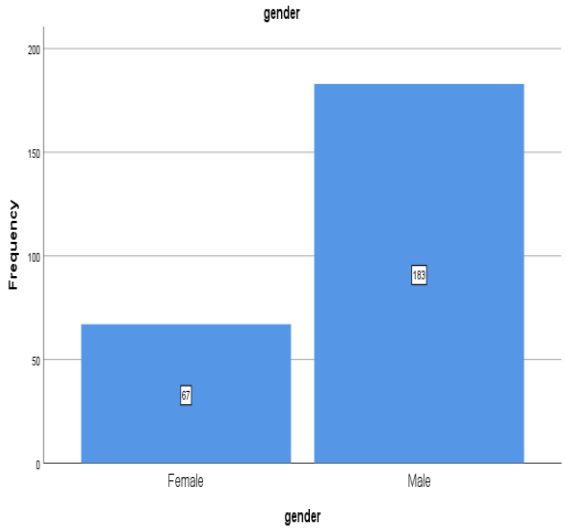

Figure 2: Gender of the Respondents:

The sample consists of 73.2% males and 26.8% females.

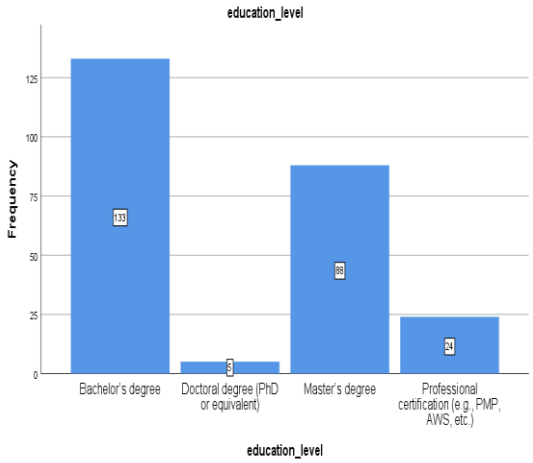

Figure 3: Education Qualifications of the Respondents:

53.2% had a bachelor's degree, while 35.2% had a master's degree. A smaller group had professional certifications (9.6%), and only 2% held a doctoral degree.

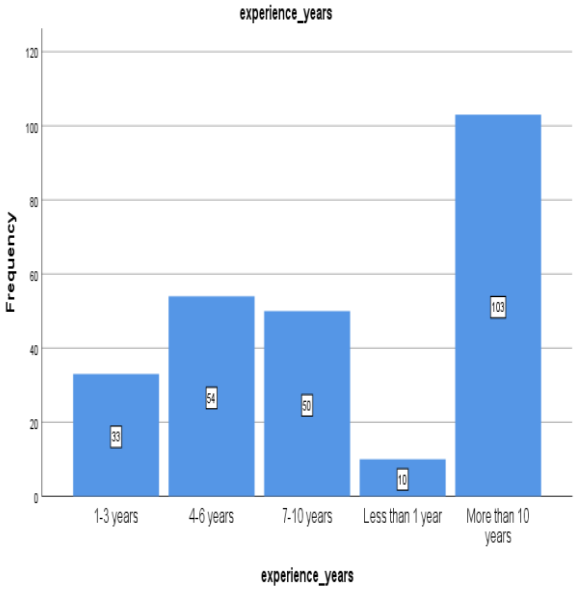

Figure 4: Years of Experience of the respondents:

41.2% of the respondents had more than 10 years of experience. Mid-level professionals with 4–10 years of experience made up 41.6% collectively. Only 4% had less than 1 year of experience.

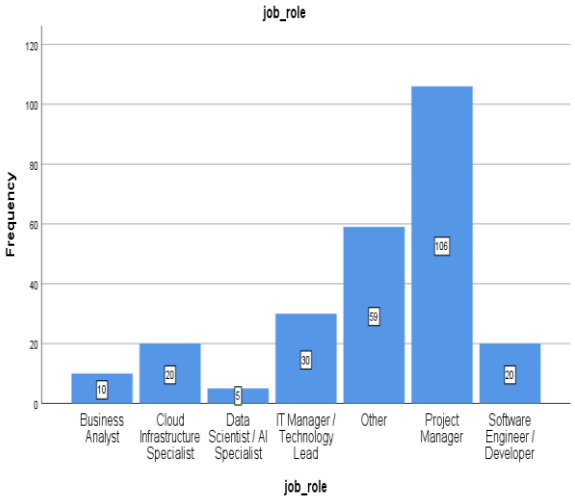

Figure 5: Job Role of the Respondents:

The above graph represents the job role of the participants, which suggests that 106 respondents were project managers, 59 belonged to other categories, and 30 respondents were IT managers/technology leads.

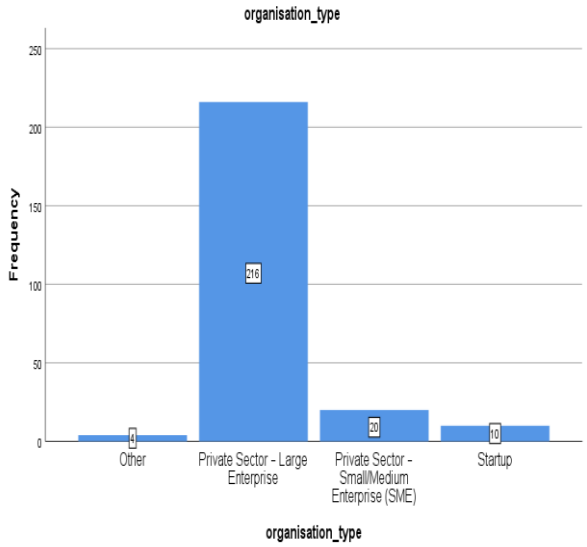

Figure 6: Organization Type:

From the above figure, it can be observed that most of the respondents belong to large private enterprises, followed by private sector SMEs and startups. 4 belonged to another type of organization.

Technologies Adopted: With 23.2% using AI alone and another 43.2% adopting AI in conjunction with Cloud Computing, Big Data, IoT, or Blockchain, the majority of respondents indicated using AI either alone or in combination with other technologies, according to the survey. Just 4% cited cloud computing, but 17.6% said these technologies were not being used.

4.3 Descriptive Statistics:

With mean scores primarily falling between 3.5 and 4.0, the descriptive statistics demonstrate moderate to high agreement across project management approaches, suggesting favorable impressions. Significantly, adoption-related factors with the highest scores (M = 4.05) were those that demonstrated a strong organizational focus, such as aggressively pursuing AI/cloud technologies and having clear implementation rules. The highest mean (M = 4.30) was found for recommendations to enhance project management, particularly improving project managers' technical understanding, indicating that this should be a top priority. The majority of respondents concur that successful projects are a direct result of good project management and adoption procedures.

4.4 Factor Analysis:

4.4.1 KMO Bartlett's Test:

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.837
Bartlett's Test of Sphericity	Approx. Chi-Square	4762.084
	Df	351
	Sig.	.000

Table 2: KMO and Bartlett's Test:

A satisfactory level of sample adequacy is indicated by the Kaiser-Meyer-Olkin (KMO) score of 0.837. Furthermore, the variables are sufficiently linked to move on with factor analysis, as shown by the significant results of Bartlett's Test of Sphericity (Chi-square (351) = 4762.084, p <.001).

4.4.2 Principal Component Analysis:

The principal component analysis identified seven components with eigenvalues larger than 1, which together account for almost 73% of the dataset's total variance explained, as the total variance explained table demonstrates. The factor structure became clearer and easier to understand after rotation since the variation was more evenly split across these seven elements. Eigenvalues for components other than the seventh were less than 1, and their contributions to the variance explanation were negligible.

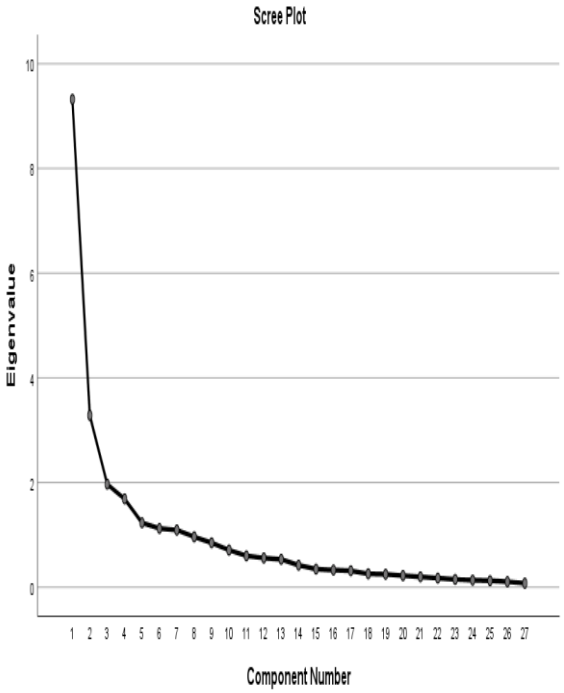

Figure 7: Scree Plot:

The scree plot highlights the first component's significant contribution by demonstrating that it accounts for the majority of the variation. A distinct factor structure is supported by subsequent components, which offer extra value, but to a lesser extent.

4.4.3 Rotation Component Matrix

Seven aspects are revealed by the rotating component matrix, with Component 1 focusing on stakeholder interaction and Component 2 reflecting project management methods, such as planning and risk management. Component 3 concentrates on success indicators like performance and efficiency, while Component 4 emphasizes adoption-related elements like team willingness and guidelines. Aspects like stakeholder concerns, technical expertise, and cost reduction are captured by the remaining components.

4.5 Hypothesis testing:

4.5.1 Testing First Research Hypothesis:

To test the hypothesis, examine the impact of project management practices on the success of AI and cloud computing projects. A simple linear regression was conducted to test the hypothesis.

ANOVA						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	32.115	1	32.115	48.163	.000[b]
	Residual	165.369	248	.667		
	Total	197.484	249			
a. Dependent Variable: success score						
b. Predictors: (Constant), Project Management Score						

Table 3: Regression Analysis:

The findings indicate that project management practices significantly improve the success of cloud computing and AI initiatives (R =.403, p <.001). The model has a modest effect, explaining 16.3% of the variance in project performance (R^2 =.163). A robust predictive association is shown by the standardized beta coefficient (B =.403). There is statistical significance in the regression model as a whole (F(1, 248) = 48.16, p <.001). Therefore, the null hypothesis is rejected, indicating that project management practices significantly influence project success. The results suggest that improving project management procedures is essential to raising the success rate of cloud and AI initiatives. To improve results, organizations should place a high priority on organized planning, efficient communication, and good risk management.

On similar lines, Rolstadås et al. (2014) demonstrate how the project management strategy chosen in relation to the project's issues affects the project's success. According to the report, project teams should choose their project management strategy at the outset and choose the pertinent success elements to concentrate on.

4.5.2 Second Research hypothesis:

The second hypothesis assumed that project management practices significantly affect the adoption of AI and cloud computing technologies. To test the hypothesis, regression analysis was conducted.

ANOVA						
Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	52.563	1	52.563	121.397	.000[b]
	Residual	107.380	248	.433		
	Total	159.943	249			
a. Dependent Variable: Adoption_Score						
b. Predictors: (Constant), Project_Management_Score						

Table 4: Regression Analysis for the Second hypothesis:

Project management methods accounted for 32.9% of the variation in adoption (R^2 =.329), according to the data, which showed a significant predictive connection (F(1, 248) = 121.40, p <.001). The standardized coefficient showed a considerable beneficial impact (B =.573, t = 11.02, p <.001). A fit was shown by the model (R =.573; SE = 0.66). Consequently, the null hypothesis is rejected, demonstrating that project management practices have a major impact on the adoption of technology. The findings indicated that investing in project management frameworks, tools, and training may increase the strategic value of digital efforts, decrease failures, and speed up the adoption of new technologies. On similar lines, Akbar et al. (2024) highlight planning, scalability, and delivery as critical facilitators of cloud-driven project success and list 32 success elements that are essential for managing cloud-based global development.

4.5.3 Third Research Hypothesis:

The third research hypothesis assumes that certain project management dimensions significantly contribute to the adoption of AI and cloud computing. The hypothesis was tested using regression analysis, and the results are as follows:

ANOVA						
Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	64.426	3	21.475	55.309	.000[b]
	Residual	95.517	246	.388		
	Total	159.943	249			
a. Dependent Variable: Adoption Score						
b. Predictors: (Constant), Stakeholder_Engagement_Score, ProjectPlanning_Score, Risk_Management_Score						

Table 5: Regression Analysis for the Third hypothesis

With F(3, 246) = 55.31, p <.001, the overall model (ANOVA) was significant and explained 40.3% of the variation in adoption (R^2 =.403). Stakeholder engagement was the sole predictor that significantly contributed (B =.542, t = 8.25, p <.001). Risk management (p =.127) and project planning (p =.876) did not reach statistical significance. As a result, there is a partial rejection of the null hypothesis (H0). Therefore, the primary project management factor impacting the adoption of technology is stakeholder engagement. The findings emphasize the necessity of including users, managers, and partners at every stage of the project lifecycle and show how important

stakeholder involvement is in promoting the adoption of AI and cloud computing. On the other hand, the limited impact of project planning and risk management indicates that instead of placing too much emphasis on conventional control mechanisms, organizations should shift their attention to cooperative tactics and secure stakeholder support to increase adoption.

Similarly, Hwabamungu and Shepherd (2024) show that the degree to which stakeholder input is included in an organization's digitization strategy determines its impact. The degree to which stakeholder engagement is ingrained in the strategy—or not—determines how the stakeholder landscape is organized and maintained, as well as how groups of stakeholders communicate with one another. This is the cornerstone of stakeholders' value generation through digitization.

4.6 Areas for improving project management practices in AI and cloud projects

Descriptive data show that providing technical expertise to project managers was the most highly valued advice (M = 4.30, SD = 1.04), followed by stakeholder participation (M = 3.84, SD = 1.26). The mean ratings for other recommendations, including post-implementation feedback, strategy alignment, and ongoing training, were all around 3.75, suggesting moderate agreement. Strong support was shown by the majority of participants rating important items at the highest score of 5. These findings make it evident that technical proficiency and stakeholder involvement are top concerns for development.

5. Discussions

5.1 Significance and Recommendations:

By highlighting the critical role that project management practices play in guaranteeing the success of AI and cloud computing projects, this study adds to the expanding corpus of information on digital transformation. It draws attention to stakeholder engagement as a crucial adoption element and provides useful information on how people-centered management techniques promote technology integration for both practitioners and scholars.

In order to promote ownership and lessen resistance to change, organizations should place a high priority on active stakeholder engagement throughout the project lifecycle. Project managers ought to create communication plans that guarantee openness, feedback, and cooperation. Furthermore, even though planning and risk management have no direct effect on adoption, these aspects are nevertheless crucial for the long-term viability of a project. To increase adoption and success, businesses should strike a balance between organized planning and people-focused involvement.

5.2 Limitations of the Study and Future Work:

This study is limited due to response bias as a result of self-reported data. The study also focuses on only three project management dimensions, such as planning, risk management and stakeholder engagement, excluding other factors such as organizational culture or resource allocations. Lastly, findings are context-specific, thus limiting generalizability across sectors or regions.

Future studies should investigate more project management dimensions such as leadership style, organizational culture and resource allocation to get a holistic understanding of their role in the adoption of these technologies. To evaluate how project management techniques change and maintain the use of AI and cloud over time, longitudinal studies are also advised.

6. Conclusion:

This research aims to examine the impact of project management practices on AI and cloud computing projects. The study collected and analyzed data from 250 stakeholders to get insights into how project management practices affect the adoption and success of AI and cloud computing. The findings of this study indicated that project management practices have a significant impact on the success of AI and cloud computing projects. The findings further highlighted that project management practices have a significant impact on the adoption of AI and cloud computing technologies. Lastly, the study also indicated that project stakeholder engagement is the primary project management factor that affects the adoption of AI and cloud computing. These observations highlight how crucial it is to implement people-focused management strategies with equal weight to structured practices. By providing a model that connects project management aspects to technology adoption and success, the research makes a theoretical and practical contribution. Ultimately, enhancing stakeholder participation is crucial to maximizing the value of AI and cloud investments

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