EVALUATING JOB OUTCOMES: EXPLORING THE IMPACT OF PROJECT MANAGEMENT INNOVATION, MODERATED BY GOVERNANCE, AND MEDIATED BY BEST PRACTICES

ABSTRACT: Purpose: This research basic objective was to investigate the existing relationships among the project management innovation, project management best practices, project governance, and job outcomes on project workers. This research has examined the direct association of project management innovation and project management best practices on job outcomes on project workers. Moreover, the role of best practices as a mediator, and the moderating effect of governance was also investigated in this research on the association of project management innovation and employees job outcomes. Method: By using the responses of 216 workers of IT and software development houses/firms based in Saudi Arabia, this research analyzed the data. Moreover, the SEM approach through the STATA software was used for analysis in this research. Findings: The findings of this research reveal the significant association among the proposed paths of this research. It found that employment outcomes were significantly impacted by the project management innovation and best practices implemented in organizations. This highlights the importance and significance of these factors for an employee's job outcomes. Moreover, the significant mediating role of project management best practices was also found in the direct relationship proposed by the study. Also, project governance plays a significant moderating role on the path of project management innovation and employees job outcomes. Implications/Originality: This research provides useful findings to businesses and establishes a high bar for the IT and software development sectors in terms of theory and practice by explaining the complex associations among the project management innovation, best practices, governance, and job outcomes. Businesses that pay significant care towards their employees' happiness on the work, their skills of creatively, and the quality of their project management practices can use the findings of this study to achieve innovative climate in organization.

Keywords: Project management best practices, innovation, governance, job outcomes, software industry.

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1. Introduction

In the ever-changing world of software development and IT, innovation, best practices, and governance are crucial to project success and project worker employment. Information technology project management will become more important as the government diversifies its economy and improves technologically under Vision 2030 (Alqublan, 2023). Governance structures, project management innovation, and best practices affect employee productivity. This study examines IT and software development businesses' intricate relationship Ju, Ferreira, and Wang (2020). This fast increasing sector can benefit from the study's focus on these interrelated aspects, which aim to provide economic and cultural insights (Awan, Sroufe, & Shahbaz, 2021).

Past literature has shown significant progress in the exploration of project management innovation and development (Picciotto, 2020). A number of research studies have highlighted the role importance of innovation for the success of businesses projects and their methods of organizations (Rasool et al., 2022). Soto Setzke et al. (2023) assert that implementing new project management techniques improves project outcomes. Novel concepts result in increased satisfaction among stakeholders and enhanced project outcomes for enterprises. The literature often highlights the significance of long-term project management best practices (Picciotto, 2020). Multiple studies have shown that prioritizing tasks and following procedures and best practices lead to improved operational efficiency and project success (Ershadi et al., 2020). Empirical research has focused on the complex relationship between project success and management systems. Research indicates that project governance is essential for mitigating risks, ensuring accountability, and rationalizing resource allocation (El Khatib et al., 2020). An empirical study suggests that a governance structure improves project management. Despite fruitful research, the exact impact of these characteristics on the

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hiring outcomes of IT/software development project personnel remains unclear (Arinaitwe, 2021). To fill this information gap, this study investigates the interconnected web of factors in the dynamic IT/software development sector, including new approaches to project management, leadership styles, standards, and chances for professional growth. With the accumulation of additional empirical evidence, this becomes practical.

Research has shown that there are some elements that contribute to initiative and the prosperity of businesses (Hall & Bonanomi, 2021). However, it is unclear how these dynamics will affect the careers of people involved in software development and information technology projects. The educational and professional backgrounds of implementers are typically disregarded in academic studies on project performance measures (El khatib et al., 2023). The impact of different project-based work arrangements on project workers' satisfaction, productivity, and success not to mention the rate of technological advancement requires further investigation (Bhatti et al., 2021). The success of a project is heavily dependent on the project manager's ability to think creatively while yet following established best practices (Gębczyńska, 2020). However, it is still not clear how these factors impact professional paths and how they regulate or mediate that impact. There is a dearth of research on the effects of project governance structures in IT/software development firms on project outcomes, as well as the mediating role that best practices in project management play in the relationship between job outcomes and innovation in project management (Shahzadi et al., 2021). When developing policies and procedures to support projects' success and employees' advancement, an understanding of innovation, best practices, governance, and work outcomes is crucial (Korhonen et al., 2023). Our understanding of how project management influences software and IT development will improve with the filling of these gaps. This will help this dynamic business's project leadership and people management strategies become more informed and tailored.

One of this study's three primary objectives is to fill empirical gaps. The emphasis is on how new project management practices effect IT and software development project workers' careers. This study investigates how innovative project management methods affect career paths in order to bridge gaps in our understanding of how innovation influences project personnel's professional experiences and happiness. This study expands on creativity and project success research (Marnewick, 2023) by concentrating on team member micro-effects. The second purpose is to figure out how project management best practices improve employee productivity. This goal broadens empirical understanding of best practices beyond project success indicators by investigating the causal relationship between systematic use of established methodologies and professional success. Following protocols in information technology and software development can promote job satisfaction, career advancement, and professional happiness (Hooda et al., 2022). Finally, this study looks at how project management best practices influence work outputs and innovation. This study investigates how adopting established practices channels the impacts of innovation on career trajectories in order to better understand the relationship between innovation and stability in project management. This goal contributes vital information to firms constructing a comprehensive project management strategy by strengthening theoretical understanding of how innovation benefits project personnel. This study is significant because it could provide light on IT/software development firms' policies and procedures. To keep up with rapid changes in technology and project management approaches, the industry must understand the intricate links between innovation, best practices, governance, and work outcomes.

2. Literature Review

The innovation in project management sector is experiencing substantial growth and is offering advantages to a wide array of business sectors (Guan, Mou, & Jiang, 2020). The need for creative project management has grown in the contemporary, cutthroat business environment. Modern technology and an innovative, flexible, and constantly developing mentality are necessary for project management innovation (Doroudi, 2022). Creative cultures in project management assist businesses in adapting, grabbing opportunities, and lowering risks. Projects evolve, and modern project management techniques recognize this and call for flexibility. Because they adapt quickly, agile and iterative project management techniques are displacing conventional ones (Chen et al., 2020). New project management techniques are seeing improvements in resource allocation, risk assessment, and project planning due to data-driven decision-making utilizing analytics and AI.

Advanced project management necessitates prompt and effective coordination and communication between sites (Celik, 2023). Innovation in project management is expanding as businesses strive for excellence in project execution. Technology, protocols, entrepreneurial spirit, and management are all part of the strategy (Zhang & Chen, 2021). To be genuinely effective, advances in project management must foster the belief that setbacks present chances for success. To encourage creativity, leaders inspire, encourage, and assist groups in achieving novel objectives. Innovative project management requires technological, strategic, and creative abilities. Businesses want innovative project management solutions that can handle uncertainty in the dynamic world of business (Chen, 2023).

According to current understanding of the relationship between human career trajectories and organizational goals, project management innovation influences the employment outcomes of project staff. Guan et al. (2020) assert that innovative project management can improve the performance of an organization. Businesses aim to accelerate the launch of new products, optimize resource allocation, and increase project efficiency through the use of advanced technology, agile processes, and iterative methodologies (Awan et al., 2021). Employee outcomes and success indicators may be impacted by innovative project management techniques. Researchers may suggest numerous ways that project management innovation might improve job results using the most recent data. Innovation fosters a pleasant work environment that increases employee engagement and satisfaction, claim Arinaitwe (2021). According to Huang and Qiao (2022) and other researchers, innovative project management can improve job performance, skill development, and career promotion. To remain competitive in industries that are undergoing rapid change, researchers and practitioners looking to maximize worker dynamics in project-oriented workplaces must comprehend the complex relationships between project management innovation and job results.

H1: Project management innovation significantly influences the job outcomes of project employees.

The assumption that project management best practices have a significant impact on the employment outcomes of project staff is supported by the abundance of research on their significance in shaping organizational performance and individual career trajectories (Nazari, Shabbir, & Setiawan, 2021). Project success depends on standardization, communication, and risk management, according to Hooda et al. (2022). Consequently, adhering to best practices in project management will have a significant effect on careers and project success. Research indicates that optimal practices for project management have a variety of effects on work outputs. According to Lin et al. (2022), best practices encourage collaboration on projects. According to the authors, cohesive teams experience reduced employee turnover and greater job satisfaction. Best practices for project management, according to Alanzi et al. (2023), also encourage communication and lessen ambiguity. Both career advancement and employee performance are enhanced by these two criteria. Scholars and practitioners need to comprehend the complex relationships that exist between employee work outcomes and project management best practices if organizations are to execute projects in an efficient and successful manner (Lin et al., 2022). Gaining knowledge of this will improve project management and create productive work environments.

H2: Project management best practices significantly influence the job outcomes of project employees.

A thorough grasp of project dynamics enables the premise that the relationship between innovation in project management and project staff employment outcomes is strongly influenced by best practices in project management (Li et al., 2021). The impact of innovation and best practices in project management on organizational success has been extensively researched by a number of scholars, including Rastrollo-Guerrero, Gómez-Pulido, and Durán-Domínguez (2020). But more individuals are realizing that in order to fully comprehend these components' interrelation, they must be looked at collectively. The proposed hypothesis, which is based on mediation analysis, contends that the creative aspects of project management influence the work outcomes of project workers by means of a crucial mediating mechanism the prudent application of best practices (Zhang & Chen, 2021). Project management best practices may lessen the association between innovation and job outcomes, according to the study. Ershadi et al. (2020) recommend standardizing processes and improving communication to reduce unconventional project management risks. Best practices, according to El khatib et al. (2023), can increase efficiency

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and integration in projects by making use of new technology. Managers of projects can benefit from this theory because it clarifies the interplay between new approaches and more conventional ones, and how each influences the outcomes and experiences of project employees.

H3: Project management best practices significantly mediate the relationship of project management innovation and the job outcomes of project employees.

The potential barrier to employee productivity and innovation could be the intricate nature of the recently implemented project governance elements. Gębczyńska (2020) investigated the examination of project governance responsibilities in light of the evolving project contexts and the growing complexity of sectors. To guarantee the triumph of a venture, project governance institutes protocols, guidelines, and decision-making processes (Arinaitwe, 2021). The proposition posits that the advantages of innovative project management for project personnel could vary in accordance with the project governance framework

that is currently in place (Picciotto, 2020). According to recent research, there might not be much of a correlation between creative project management, better project governance, and employee performance reviews. Ju et al. (2020) say that good project governance gives new ideas the strategy direction and oversight they need to be put into action. Korhonen et al. (2023) say that making project governance structures more methodologically complicated is important to cut down on waste and make sure that poor work is delivered. To add to the discussion about project management, this sentence suggests that the setting in which governance institutions work decides how much innovation affects the experiences and outcomes of project staff (Bhatti et al., 2021). Today's fast-paced business world requires companies to understand how project management impacts innovation and output.

H4: Project governance significantly moderates the relationship of project management innovation and the job outcomes of project employees.
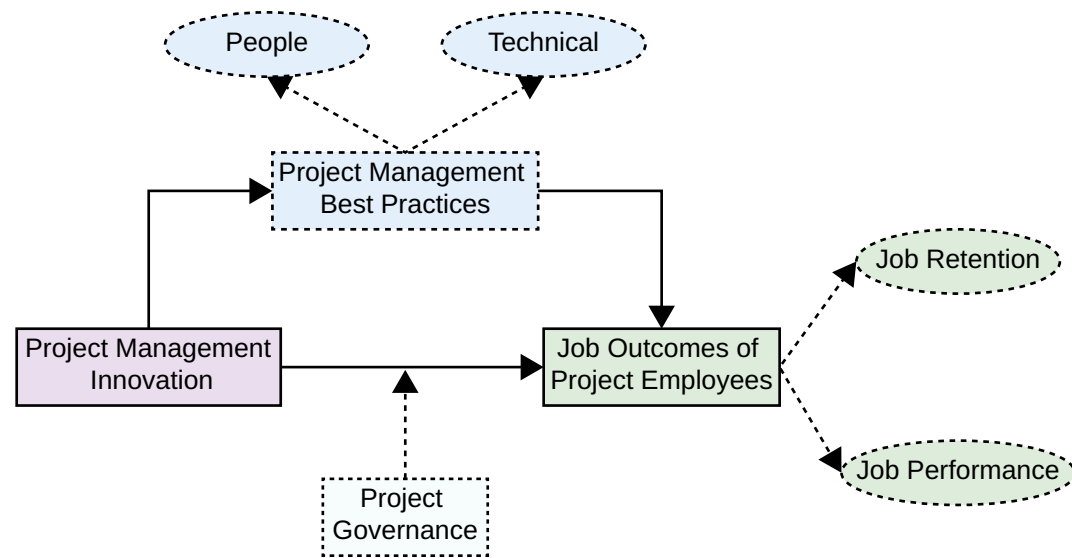

Figure 1: Conceptual Framework.

3. Methodology

This research employed the STATA-SEM (a Structural Equation Modelling) tool, to analyze the collected data. The data was collected from the employees of IT/software development firm. Participants in the study included 216 people who worked at different IT and software development companies in Saudi Arabia. We chose Saudi Arabia as an example

because information technology (IT) is becoming more and more important to the Saudi economy. To make sure that the presented theories were looked at in depth within the chosen industry, participants had to have held project-based roles in these companies. To get information about project management, project governance, and work results, a standard survey tool was used. Because the

survey questionnaire was sent electronically to the chosen sample, the answers would stay private and secret. The poll used well-known metrics from the literature to look at important factors, which gave people confidence in the figures' accuracy and dependability. Because the subjects were honest and gave accurate information, the dataset is stronger. A mixed-methods approach was used to better understand the unique dynamics at the chosen IT/software development companies. This included both quantitative data and qualitative perspectives gathered through open-ended questions.

Using measures that have been validated in related literature, the study operationalized the components being considered. Innovative approaches to project management, project governance, and evaluating work outcomes have their roots in the groundbreaking research of illustrious academics. By using the work of Zaman, Nawaz, and Nadeem (2020), six questions were used to assess the best practices in project management. Of these six questions the three questions were related to the people dimension and three questions were related to the technical component. Project governance was measured by the questionnaire of Joslin and Müller (2016) ten items scale. This research used the four-item Nieves (2016) project management innovation scale to put a number on it. We consulted the work of Rehman et al. (2020) to determine the project management employees outcome. Six factors made up the job retention scale (Xuecheng & Iqbal, 2022) and five items made up the work performance scale (Dåderman, Ingelgård, & Koopmans, 2020). For this extensive study, authors used STATA-SEM, a trusted structural equation modelling tool. We thoroughly understood the dynamic relationship between project governance, project management innovation, and employment results using structural equation modelling (SEM). The study included route coefficients, model fit indices, and direct and indirect consequences. Mediation and moderation effects helped explain how project management and governance innovation affects employment results. With STATA-SEM, the hypotheses were thoroughly examined using advanced statistical analysis in management research.

4. Results

The values of Cronbach's Alpha of this research variables are presented in table 1. All the values shows that the selected scale for the variable of the

study have a good level of internal consistency and measuring variables accurately. Project management best practices has the value of 0.870, which shows that the scale has a good level of consistency with its indicators. Moreover, the Cronbach's Alpha for the job outcomes of project employees appeared as 0.812, which shows that the selected scale is measuring the accurate concept of the variable. This supports the study findings about the different job outcomes of project employees. The project management innovation scale has a Cronbach's Alpha score of 0.858, which means that it is very consistent with itself. For this reason, the tool can be trusted to evaluate new ways of managing projects. The project governance variable has a high internal consistency, as shown by its Cronbach's Alpha score of 0.897. This shows that the scale correctly shows the parts of the project governance scheme. The results of this study set the stage for future readings and analyses of project governance, best practices, new ideas in project management, job results, and the reliability of the research tools.

Table 1: Cronbach's Alpha.

Variable	Cronbach's Alpha
Project management best practices	0.870
Job outcomes of project employees	0.812
Project management innovation	0.858
Project governance	0.897

The composite reliability values and average variance extracted (AVE) for the study's measuring tools are shown in Table 2. These figures demonstrate the instrument's validity and dependability. A composite dependability score of 0.924 indicates that project management best practices are consistently applied. The average variance of this measure produced a 0.605 convergent validity. The employment outcomes of project participants validate the validity of the latent concept assessment scale. A very high composite dependability of 0.819 is achieved. Convergence is indicated by this variable's AVE of 0.660. The innovation in project management scale's composite reliability of 0.905 and AVE of 0.638 demonstrate both its internal consistency and convergent validity. Last but not least, the project governance variable demonstrates convergent validity (AVE of 0.572) and strong composite reliability (0.868) with scale internal consistency. The validity and reliability of the assessment instruments are supported by these findings, which also validate the constructs' correctness and consistency.

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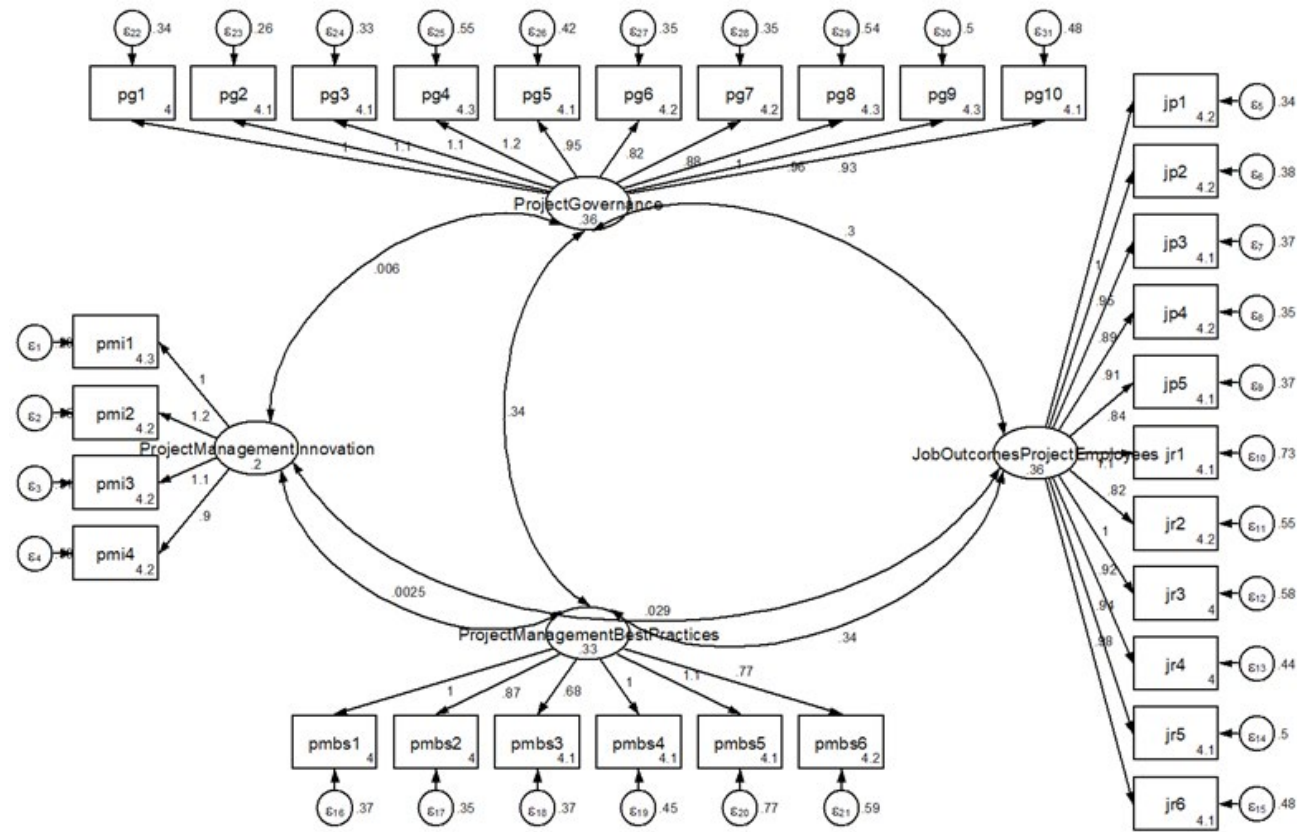
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Figure 2: Estimated Model.

Table 2 illustrates that the measurement model is trustworthy since all variables have good average variance reductions and high composite reliability. These measures prove the measuring tools' convergent validity and each latent construct's internal consistency. The findings confirm the data and provide a solid foundation for studying the complex interaction between project governance, innovation, job outcomes, and best practices in project management. Because the researchers considered the psychometric properties of the evaluation tools, the study's conclusions are more credible. This enhances the study's project management rigor in IT/software development organizations.

Table 2: Validity and Reliability Confirmation.

Variable	Composite Reliability	Average Variance Extracted (AVE)
Project management best practices	0.924	0.605
Job outcomes of project employees	0.819	0.660
Project management innovation	0.905	0.638
Project governance	0.868	0.572

Table 3 shows confirmatory factor analysis. It provides latent construct z-scores, p-values, standard errors, and confidence ranges for the suggested measurement model. Governance, project management innovation, best practices, and employee work outcomes were examined. The measuring model's validity is backed by all project governance components' 0.536 to 0.860 statistically significant and positive coefficients. The latent construct's validity and reliability were confirmed by project employees' job outcomes' positive coefficients from 0.572 to 0.798. Project management innovation coefficients ranged from 0.642 to 0.743, proving the measurement model's robustness. The measuring equipment's accuracy was confirmed by project management best practices' coefficients of 0.572 to 0.678. For comparison,

each latent construct's reference indicator limited coefficients were 1.000. CFA results indicate precise and repeatable measurement techniques, which bodes well for structural equation modelling research.

Table 3: Confirmatory Factor Analysis.

Measurement	OIM Coef.	Std. Err.	z	P>|z|	[95% Conf. Interval]	
PG1	1	(constrained)				
PG2	0.667	0.062	9.500	0.000	0.547	0.788
PG3	0.791	0.055	7.835	0.000	0.383	0.598
PG4	0.781	0.061	11.192	0.000	0.661	0.725
PG5	0.781	0.071	9.579	0.000	0.641	0.746
PG6	0.572	0.059	8.431	0.000	0.455	0.688
PG7	0.860	0.057	4.400	0.000	0.174	0.398
PG8	0.536	0.063	8.939	0.004	0.447	0.737
PG9	0.760	0.072	10.727	0.002	0.626	0.771
PG10	0.614	0.062	8.712	0.000	0.493	0.735
JOPE1	1.000	(constrained)				
JOPE2	0.707	0.057	10.806	0.000	0.595	0.819
JOPE3	0.633	0.074	7.502	0.000	0.488	0.778
JOPE4	0.783	0.051	13.462	0.000	0.683	0.707
JOPE5	0.798	0.062	11.201	0.000	0.676	0.745
JOPE6	0.572	0.059	8.431	0.002	0.626	0.771
JOPE7	0.678	0.055	10.363	0.000	0.570	0.786
JOPE8	0.743	0.052	11.909	0.000	0.640	0.677
JOPE9	0.657	0.062	12.354	0.000	0.618	0.795
JOPE10	0.618	0.053	9.696	0.000	0.174	0.398
JOPE11	0.766	0.060	10.741	0.000	0.648	0.715
PMI1	1.000	(constrained)				
PMI2	0.642	0.058	9.245	0.000	0.528	0.757
PMI3	0.705	0.058	10.194	0.000	0.591	0.819
PMI4	0.743	0.068	9.112	0.000	0.610	0.709
PMBP1	1.000	(constrained)				
PMBP2	0.606	0.052	9.754	0.000	0.504	0.707
PMBP3	0.618	0.053	9.696	0.000	0.514	0.722
PMBP4	0.676	0.058	9.825	0.000	0.563	0.790
PMBP5	0.572	0.059	8.431	0.002	0.591	0.819
PMBP6	0.678	0.055	10.363	0.000	0.610	0.709

Table 4 shows fitness data for project governance, employee work outcomes, project management innovation, and best practices. These numbers are crucial for assessing the measurement model's idea representation. Original sample fits for project governance metrics (PG1-PG10) range from 0.880 to 0.972. The measurement items' ability to completely define project governance shows it is well-represented. The original sample had a 0.838 match between JOPE1–JOPE11 indicators and project staff employment outcomes. The fit statistics ranged from 0.719 to 0.972. This further proves that measuring items accurately reflect

project-based labor results. The initial sample fits 0.799, which can be explained by the robust fitness statistics for project management innovation (PMI1–PMI4), which range from 0.670 to 0.904. The findings demonstrate that novel approaches to project management are actually captured by the measuring items. The total fit for the initial sample was 0.630, and the fitness statistics for the PMBP1–PMBP6 project management best practices indicators ranged from 0.587 to 0.710. It would suggest that the measuring items are representative of sound project management techniques. Since the measurement model agrees well with the conceptual constructs and observable indicators, Table 4's fitness statistics show that the study's measuring tools were valid and trustworthy.

Table 4: Measurement Items Fitness Statistics.

Variable	Indicator	Original Sample
Project Governance	PG1	0.880
	PG2	0.870
	PG3	0.775
	PG4	0.837
	PG5	0.901
	PG6	0.928
	PG7	0.855
	PG8	0.653
	PG9	0.858
	PG10	0.845
Job Outcomes of Project Employees	JOPE1	0.838
	JOPE2	0.873
	JOPE3	0.892
	JOPE4	0.726
	JOPE5	0.784
	JOPE6	0.972
	JOPE7	0.889
	JOPE8	0.735
	JOPE9	0.729
	JOPE10	0.841
	JOPE11	0.719
Project Management Innovation	PMI1	0.670
	PMI2	0.799
	PMI3	0.859
	PMI4	0.904
Project Management Best Practices	PMBP1	0.710
	PMBP2	0.630
	PMBP3	0.617
	PMBP4	0.587
	PMBP5	0.623
	PMBP6	0.671

Authors may utilize the chi-square fit statistics, shown in Table 5, to compare the model's performance to

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that of the baseline and saturated models. With a likelihood ratio chi-square value of 14660.839, the suggested model significantly deviates from a perfect fit when compared to the saturated model. When the p-value is 0.000, it means that the model is not the same as the saturated model. The proposed model outperformed a relationship-free model (12103.552 chi-square baseline value). The suggested model outperformed the baseline model with a statistically

significant improvement in fit (p=0.001). The suggested model outperforms the baseline and saturated models statistically, although large samples may affect the Chi-square test because it is reliant on sample size. Given the limits of the Chi-square test, it is advised to assess alternative model fit indices in order to more thoroughly assess the fit and sufficiency of the structural equation model.

Table 5: Chi-square Fit Statistics.

Fit statistic	Value	Description
Likelihood ratio	14660.839	model vs. saturated
p > chi2	0.000	
chi2_bs(2356)	12103.552	baseline vs. saturated
p > chi2	0.001	

Table 6 displays the statistics of goodness of fit for the estimated and saturated models, with a focus on the Standardised Root Mean Square Residual (SRMR) as a crucial measure. SRMR values for approximated and saturated models were 0.073 and 0.061, respectively. Stronger fit to the model-implied correlation is indicated by low SRMR values. In this instance, the SRMR of the estimated model is acceptable while being somewhat greater than that of the saturated model. Based on the SRMR values, the suggested structural equation model provides a good fit to the data. To evaluate overall fit, these findings should be compared to other model fit indices such as the Tucker-Lewis Index (TLI) and Comparative Fit Index (CFI). An evaluation of the predicted model's fit to the observed data is facilitated by the SRMR, which is displayed in Table 6.

Table 6: Model Goodness of Fit Statistics.

	Saturated Model	Estimated Model
SRMR	0.061	0.073

For "Project management innovation" and "Project management best practices," Table 7 shows R-square statistics. These statistics show how much the exogenous variables explain each endogenous variable's variation in the structural equation model. The predictor variables in the model explain 47.9% of the variability in "Project management best practices" with an R-square value of 0.479. For "Project management innovation," the R-square score is 0.518, indicating that exogenous variables explain 51.8% of the variance. These R-square statistics help researchers and practitioners understand how well

the suggested structural equation model captures and explains project management best practices and innovation variability. They also reveal the model's explanatory strength for each endogenous variable. To fully assess the model's explanatory power and relevance to the theoretical framework, R-square values should be considered with other fit indices.

Table 7: R-square Statistics.

Variable	R Square
Project management best practices	0.479
Project management innovation	0.518

Table 8 presents the route analysis results after examining the direct and mediated interactions between significant variables in the structural equation model. The correlation between "Job outcomes of project employees" and "Project management innovation" is 0.320, with a z-score of 2.301 (p < 0.001) and a standard error of 0.083. The application of innovative strategies to enhance the career paths and experiences of project staff is crucial, as evidenced by the positive and statistically significant impact that project management innovation has on employment outcomes. "Project management best practices" on "Job outcomes of project employees," another important variable, show a comparable z-score of 2.396 and a p-value of 0.005. This study, which demonstrates that applying best practices in project management enhances project employees' job prospects, highlights the significance of established procedures and techniques in achieving outstanding career outcomes.
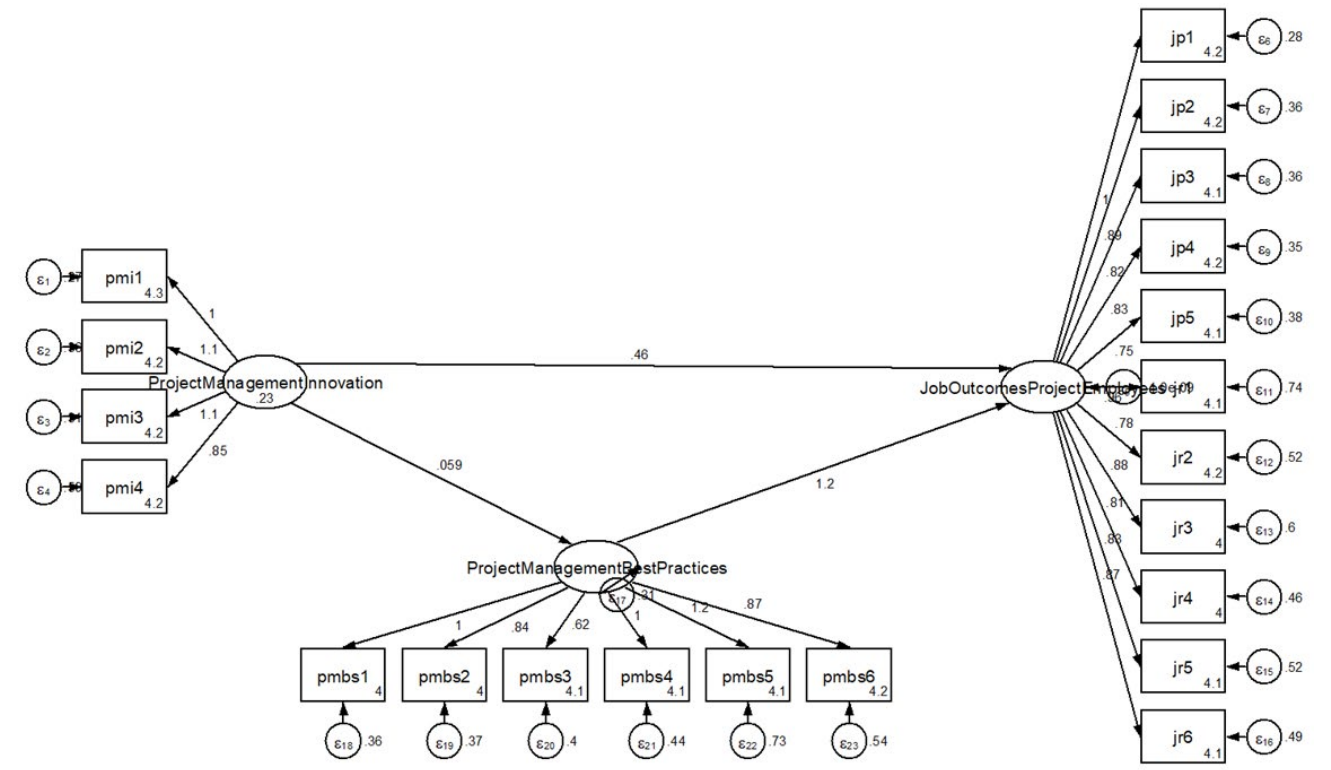

Figure 3: Structural Model for Direct and Mediated Path Analysis.

Another finding from the mediation study shows that the relationship between "Job outcomes of project employees" and "Project management innovation" is significantly mediated by "Project management best practices." This mediated relationship has a coefficient of 0.773 and is characterized by a z-score of 1.554 (p < 0.001) and a standard error of 0.431. One way that innovation in project management seems to impact work outcomes is through the implementation of best

practices. This sheds light on the intricate process via which innovation produces positive career outcomes. The moderation analysis also demonstrates that, with a coefficient of 0.805, a standard error of 0.448, and a significant z-score of 1.618 (p < 0.001), "Project governance" moderates the relationship between "Project management innovation" and "Job outcomes of project employees."

Table 8: Path Analysis.

	OIM Coef.	Std. Err.	z	P>|z|	[95% Conf. Interval]	
Project management innovation significantly influences the job outcomes of project employees.	0.320	0.083	2.301	0.001	0.157	0.394
Project management best practices significantly influence the job outcomes of project employees.	0.240	0.087	2.396	0.005	0.070	0.410
Project management best practices significantly mediate the relationship of project management innovation and the job outcomes of project employees.	0.773	0.431	1.554	0.000	0.592	0.749
Project governance significantly moderates the relationship of project management innovation and the job outcomes of project employees.	0.805	0.448	1.618	0.000	0.616	0.780

This research lends credence to the claim that project governance level influences the impact of innovation implementation on employment outcomes. In software development and IT companies, where good governance procedures are common, it highlights

the significance of these institutions. By clarifying the interconnected nature of innovation, best practices, governance, and work results, the present study makes a substantial contribution to project management as a discipline.

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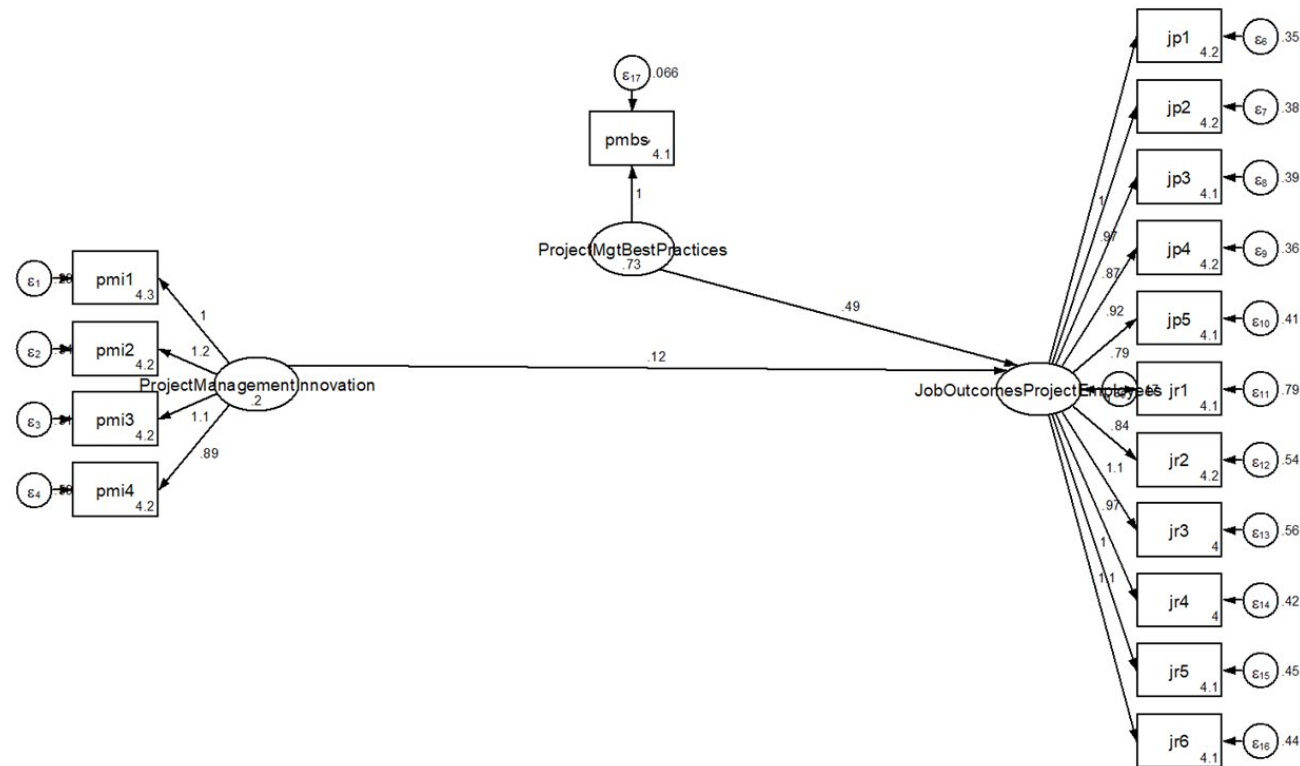
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Figure 4: Structural Model for Moderating Path Analysis.

5. Discussion

A thorough comprehension of the findings from an empirical investigation into the connections between project management best practices (PMBP), innovation (PMI), and the work outcomes of project staff members was the overarching goal of this research. The study set out to examine the effects of PG and PMBP both jointly and individually on employment outcomes, as well as their mediating and moderating roles in this relationship. The first theory holds that job prospects for project staff are significantly impacted by innovation in project management. This idea is supported by the experiment results from the study. As the favorable association between innovative project management and job outcomes demonstrates, businesses that use creative project management practices should expect their project staff to perform better and be happier. This finding is consistent with the broader literature on the favorable benefits of innovation on company outcomes. The study's findings suggest that innovative project management is critical for successful project completion because it generates an environment that improves project personnel' job outcomes. According to the second hypothesis, optimal practices in project management have a considerable impact on project people job performance. Our research supports this idea and demonstrates the need of adhering to

standard project management methods for best results. Businesses that prioritize the application of project management best practices are more likely to develop an environment that promotes employee happiness, output, and overall wellness (Hall & Bonanomi, 2021). The importance of PMBP in determining work outcomes supports the notion that a structured and standardized approach to project management benefits both the organization and its personnel.

The third hypothesis of the study states that project management best practices mediate the relationship between innovation in project management and the employment outcomes of project staff. In support of this theory, best practices mediate the positive impact of innovative project management on employment outcomes. Companies should promote innovation and integrate new ideas into project management frameworks to enhance employment outcomes (Ershadi et al., 2020). The mediating function of PMBP illustrates the impact of innovation and best practices on workplace results. Finally, we postulate that project governance drastically alters the connection between innovative project management and productive staff. By showing that moderation of project governance affects innovative PM practices, the results corroborate this hypothesis. The success of new approaches to project management

depends on good project governance. In order to help project workers achieve better results, organizations need strong governance frameworks that allow them to use novel approaches (Shahzadi et al., 2021).

Because of cultural and geographic variations, Saudi IT and software development enterprises require validated and proved theories. New project management principles (PMI) are increasing the efficiency of Saudi Arabia's booming software and IT industries. To diversify its economy and create a knowledge-based society, the Kingdom must employ modern project management techniques. Saudi IT firms utilize PMI to increase employee morale and effectiveness while also encouraging new ideas. The findings indicate that innovative technologies and creative ideas are critical components of the Saudi Vision 2030 plan to improve the economy. To be successful, Saudi Arabia's leading IT and software development companies must implement project management best practices (PMBP). In a position that requires accuracy and agility, adhering to best practices is critical (Rasool et al., 2022). Because PMBP affects job chances and Saudi IT businesses frequently engage with overseas markets, they should adhere to international rules. To accomplish this, you may need to strike a balance between international best practices and local conventions. These findings suggest that enterprises in Saudi Arabia, which portrays itself as an IT and software development hub, should implement best practices to make their workplaces more pleasant and their project teams more efficient.

Software development and IT initiatives are critical to the success of Saudi Arabia's digital transformation. This means that project governance (PG) is essential. The positive moderating impact shows that in order to improve work outcomes, creative project management requires robust governance structures. IT organizations in Saudi Arabia must have a strong culture and strategic governance processes because the rules are always changing. The findings indicate that clear organizational models assist project managers in developing new concepts. By investing in IT infrastructure, Saudi Arabia is capitalizing on PG's capacity to level the playing field and create jobs. In order to keep things going smoothly and make sure people follow the rules, good government needs creative ideas. Being proactive about project control helps Saudi IT and software development firms by making sure they follow the rules and pushing them to find new ways to run projects (Arinaitwe, 2021). This proves that good governance helps run IT projects, sparks new ideas, and boosts the output of project workers.

The study reveals a significant disparity in the performance of workers on projects, which may be attributed to project control, adherence to best practices, and the implementation of innovative management concepts. Establishing a connection between project management and the significance of effective control, adherence to best practices, and generation of innovative ideas can be challenging. It is universally applicable in the area as there is substantiation for all claims made. Effective leadership, optimal methodologies, and innovative approaches are vital in enhancing work performance. They not only facilitate further study, but also contribute to the existing knowledge on project management.

6. Conclusion

In summary, this study examines the complex interrelationships that exist between best practices for IT software development, governance, innovative project management techniques, and work outcomes. Because innovative project management practices are associated with better employment chances for project managers, the results underscore the importance of novel approaches to professional development. The analysis underscores the significance of appropriate project management approaches in boosting job satisfaction and productivity within project-focused businesses. The study also shows how project management best practices affect employment outcomes and innovation in project management, showing how these elements help people reach their career goals. Furthermore, it was found that the association between innovative project management and employment outcomes is moderated by project governance. This underscores the significance of governance institutions in influencing the outcomes of innovation. The frameworks for organizational studies, innovation, and project management are all improved by this research. Enhanced project management, improved project team performance, and increased creativity are all advantageous outcomes for software development and IT organizations. Nonetheless, given the study's limitations, such as its industry-specific focus and ubiquitous technique bias, cautious interpretation is warranted, and further inquiry is recommended. Because of the changing nature of the IT/software development industry and project management practices, future study may focus on the temporal dimensions and reciprocal linkages between project management methodologies and employment outcomes. By filling in these research gaps, we can gain a deeper understanding of the relationship between

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career experiences and project management dynamics, which will improve organizational procedures and drive the establishment of settings that promote both project success and employee satisfaction. The current study broadens our understanding of project management inside IT and software development organizations, laying the groundwork for future research in this ever-changing and critical subject.

Implications of the Study

This paper has important theoretical implications for project management and organizational studies. The discovery that innovative project management techniques directly improve employment outcomes for project people helps to clarify the complex relationship that exists between innovation and career paths in project-oriented businesses. For projects to succeed and for project workers to have better professional experiences and outcomes, companies must foster an innovative culture. By incorporating project management into theoretical frameworks on innovation, job satisfaction, and career development, the advantages of innovation in project frameworks for specific personnel can be demonstrated. The importance of established procedures is demonstrated by the enormous impact that best practices in project management have on the employment outcomes of project staff. Standardized methods and processes are essential to a project's success, but theoretical frameworks can also make clear how following best practices helps project team members grow their careers. This shows how employing tried-and-true techniques systematically improves project outcomes and professional growth, which is significant for theories of organizational learning. This finding suggests that novel, cutting-edge methods in conjunction with time-tested strategies can improve employment results in a synergistic manner, indicating the need for additional study. Theoretical talks on project management innovation should consider the mediating role of best practices in order to obtain a greater understanding of how firms could purposefully mix innovation and stability to improve project performance and workforce satisfaction. Project governance should influence project management labor outcomes and innovation. This recognition highlights how project governance systems are contextualized. Organizational dynamics and governance difficulties in innovation theories help us understand how context affects individual outcomes. Governance frameworks can be added to management theories and organizational behavior to teach project managers how innovation boosts careers. This study shows how project management, innovation, governance, and individual results in IT/ software development organizations are interconnected.

The study's conclusions can improve strategic decision-making and project management in software development and IT. Project management innovation affects project staff employment results, affecting innovation-focused businesses. Companies can promote project group creativity. Collaboration and idea sharing spaces, approach-specific training and development tools, and creative reward schemes are examples. Project management and staff career development can boost project success and talent attraction. The impact of project management best practices on job results emphasizes the necessity to innovate using proven methods. Companies should invest in best practices to give project teams data and tools. Mentoring, training, and knowledge-sharing can spread these practices. Project management best practices limit the impact of innovation on job outcomes, therefore a well-rounded plan including new and old methods is helpful. With this understanding, organizations may create project management frameworks that promote creativity, stability, and originality. Project governance's moderating role requires adapting governance frameworks to new project management methods. Project governance should reflect risk, innovation, and scalability. Allowing new ideas in governance frameworks improves employee performance, risk management, and project efficiency. Organizations should invest in governance systems that adapt to project management changes. This research helps companies promote creativity, project team careers, and project management.

Limitations and Future Research Directions

Despite its limits, this research sheds light on project management innovation, best practices, governance, and employment outcomes in IT/software development organizations. The study focuses on IT and software development, hence it may not apply to other firms with various situations. Future studies should duplicate the results in various industries to see if the correlations change. As respondents may give socially acceptable answers or demonstrate cognitive biases, self-reported survey data may increase method bias. Mixed-methods approaches, objective performance metrics, and longitudinal studies may help overcome these limitations and better understand personnel outcomes and project management. This research ignores the context and individual moderating effects in favor of focusing on the direct and mediated linkages between project management innovation, best practices, governance, and employment outcomes. To understand the observed links, more research should include human aspects like personality traits or leadership styles in addition

to environmental factors like industry dynamics and organizational culture. The IT and software development businesses move quickly, thus it would be appropriate for future research to examine how project management practices affect employee outcomes over the long term. Longer-term studies can demonstrate how links persist and how project work changes over time. The study also assumes that there is a one-way relationship between work outputs and project management strategies. Subsequent investigations ought to examine mutual relationships, including the potential for organizational project management tactics to be impacted by positive task results. Finally, cross-sectional data restrict the study's capacity to establish causality. Using experimental or quasi-experimental methods, it might be able to demonstrate a causal relationship between project management, innovation, governance, and work outcomes. We will be better equipped to apply the findings to different organizational contexts and comprehend the intricacies of project management in the IT/software development business by overcoming these limitations.

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Appendix 1

Best Practices in Project Management: People Dimension (BP-PD)

1. To what extent are interpersonal communication skills emphasized in project management practices within your organization? (BP-PD1)
2. How effectively are team collaboration and cooperation promoted as part of project management best practices? (BP-PD2)
3. To what degree does your organization prioritize the development of leadership skills among project managers? (BP-PD3)

Best Practices in Project Management: Technical Component (BP-TC)

4. How well-defined are the standardized project management processes and methodologies within your organization? (BP-TC1)
5. To what extent does your organization invest in the continuous training and development of project management tools and technologies? (BP-TC2)
6. How efficiently are project risks identified and mitigated through established risk management practices in your organization? (BP-TC3)

Project Management Employees Outcome (PMEO)

7. How satisfied are you with your current job role within the project management team? (PMEO1)
8. To what extent do you feel your career goals align with the opportunities provided within the project management framework? (PMEO2)
9. How would you rate the overall work-life balance within your project management role? (PMEO3)
10. To what degree does your organization foster a supportive and collaborative work environment for project teams? (PMEO4)
11. How effectively does your organization recognize and reward individual contributions within the project management context? (PMEO5)
12. How satisfied are you with the professional development opportunities available within your project management role? (PMEO6)
13. To what extent do you feel your skills and expertise are utilized and valued within the project management team? (PMEO7)
14. How well-defined are the performance appraisal and feedback mechanisms within your project management role? (PMEO8)
15. How well does your organization address and resolve conflicts within the project management team? (PMEO9)
16. To what degree does your organization prioritize employee well-being within the project management context? (PMEO10)
17. How satisfied are you with the level of autonomy and decision-making authority within your project management role? (PMEO11)

Project Management Innovation Scale (PMIS)

18. To what extent does your organization encourage and support the exploration of new and innovative project management methodologies? (PMIS1)
19. How well does your organization facilitate a culture that embraces experimentation and creativity in project management practices? (PMIS2)
20. To what degree does your organization invest in cutting-edge technologies and tools to enhance project management innovation? (PMIS3)
21. How effectively does your organization foster cross-functional collaboration to promote innovation within project management? (PMIS4)

Project Governance (PG)

22. How clear are the roles and responsibilities defined within the project governance structure of your organization? (PG1)
23. To what extent are project objectives aligned with the overall strategic goals of your organization within the governance framework? (PG2)
24. How well does your organization ensure transparency and accountability in project decision-making processes through project governance? (PG3)
25. To what degree does your organization comply with industry standards and regulations within the project governance framework? (PG4)
26. How effectively does the project governance structure identify and manage potential conflicts of interest within projects? (PG5)
27. How well does your organization integrate feedback and lessons learned from past projects into the project governance framework? (PG6)
28. To what extent does the project governance structure promote and ensure ethical practices within project management? (PG7)
29. How efficiently does your organization manage and allocate resources through the project governance framework? (PG8)
30. How well does the project governance structure adapt to changes in project scope or objectives? (PG9)
31. To what degree does the project governance structure in your organization enhance the overall decision-making efficiency in project management? (PG10)