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KEYWORDS	ABSTRACT
<p>Project Quality, Project Risk Management, Project Quality, Government Projects</p>	<p>The current study tries to investigate concept of project risk management and project quality with moderating role of project culture. For this drive, data was collected from project managers & employees working in various project of southern districts of KP. Sample was determined over Yamani Formula. Results are analyzed through SPSS over correlation & regression. The findings indicate that project risk management has significant relation with project quality. But the project culture did not moderate relationship between project Risk Management and Project Quality. The current study for first time tries to obtained data from government construction projects about their rules and regulations for managing risk associated with project completion. This study suggests that the senior management of the project may prioritize the activities in the proper sequence to mitigate the risk of failure. All the employees must be educated and trained to understand the risk and how affectively they can respond to these risks. In this regard computer application for the soil selection, lab testing and affective quality management practices must be applied by organization to avoid the risk of failure.</p>
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INTRODUCTION

Risk Management Process (RMP) is not something that the project leader fears. The senior manager is employed to manage risks like the absence of important team members and complexity of long-lead projects (Faiz, 2020). The RMP is systematic approach used in project management to identify, assess, mitigate, and monitor potential risks that could impact the successful completion of a project (Tummala & Burchett, 1999). It is designed to be a proactive strategy rather than something that project leaders should fear (Aliu, Oke, Kineber, Aigbavboa, Alaboud & Daoud, 2023). Instead of creating apprehension, it empowers project teams to anticipate and manage challenges effectively. The RMP is a structured methodology that helps project teams identify potential challenges and

take proactive steps to address them (Aliu et al., 2023). Senior managers play a crucial role in this process, as they are responsible for overseeing and managing risks, including related to important team members' absence and the complexities of long-lead projects (Favari, 2023). Rather than something to fear, the RPM is a valuable tool that empowers project teams to navigate uncertainties and ensure successful project outcomes (Kerzner, 2015). Risk management plays a crucial role in businesses, employing skilled professionals across many projects to ensure success (Aliu et al., 2023; Faiz, 2020; Favari, 2023; Tummala & Burchett, 1999). Effective risk management is vital for project success, particularly in the construction sector, which often faces challenges related to time, budget, scope, and quality.

Identifying and mitigating these issues is vital for the project outcomes (Alzoubi, 2022). However, research reviews do not address how well risk management performance is tracked. This study aims to examine recent developments in field of risk management, specifically focusing on foundational ideas and thought processes that inform established risk research, as articulated by (Aven & Renn, 2020). Effective "risk management" goes beyond mere risk reduction, which often represents the least costly approach (Scheer et al., 2014). Frequently, businesses opt for risky strategies during their initial stages, resulting in a high rate of bankruptcy and financial loss within the early years. This study commences by analyzing "project risk management" (PRM) as the primary step, followed by an examination of its influence on project quality. The culmination involves assessing various research phases to fulfill the study's objectives. In this connection, when construction project risks are not effectively addressed, the project faces impediments such as escalated costs, project delays, and a decline in the quality and utility of amenities, preventing the realization of its intended goals (Choudhry & Khurram, 2013). In the study cited by (Aliu et al., 2023; Faiz, 2020; Tummala & Burchett, 1999; Aliu et al., 2023; Faiz, 2020; Tummala & Burchett, 1999) found that inadequate management of construction risk can significantly impact a project's efficiency, capacity, timeline, quality, and cost.

The process of identifying and assessing risks through risk management enhances the probability of successful project outcomes. The impact of poor risk management on project quality is evident, particularly concerning cost, scheduling, and scope risks, which can diminish effectiveness of many endeavors. The project's efficiency is at stake, with potential consequences for project quality if scheduling and budgeting are mishandled by project team. Project culture (PC) encompasses the shared attributes shaping organization norms, values & ethos, pivotal for realizing organizational objectives. The presence of risk is ubiquitous in all facets of our lives, and the construction industry serves as another instance of this reality, where risk is an inherent feature. It stands as a significant determinant of both success and failure in project outcomes. Inadequate project risk management can stem from limited resources and lack of familiarity with risk protocols. Project cultures operate on predefined rules and regulations, making risk management a vital component of their effective execution. Any breach of these rule challenges project culture, thereby affecting risk management and project completion. In the construction industry, which relies on predetermined schedules driven by advanced risk management, project culture plays a critical role. Thus, the present study seeks to explore relationship between PRM and project quality, considering moderating influence of project culture.

Research Questions

1. Does PRM affect the Project Quality?
2. Does PRM affect Project Culture in Pakistan Work Context?
3. Does project culture moderate relationship between PRM and project quality?

PRM holds significant importance across diverse organizations, as triumph/downfall of institution hinges on its adept execution. Failing to consider external and internal risks when establishing targets can severely undermine project quality. This study underscores the essence of PRM and elucidates underlying mechanisms that link it to its impact on project quality. Notably, this work holds relevance not only for project managers within various organizations but also offers insights that enrich organizational practices and theoretical considerations. It serves as valuable resource for construction management teams, enlightening them about dynamic significance of PRM and the pivotal role played by the effective implementation of project culture, particularly in context of developing countries.

LITERATURE REVIEW

Project Risk Management

The risk management, as outlined by (Faiz, 2020), is a structured approach that involves a series of interconnected steps. First, it begins with identification of potential risks that could impact project, process, or organization. These risks could be related to various factors, like financial uncertainties, technical challenges, market fluctuations, or unforeseen events. Once risks are identified, the next step is to evaluate them. This evaluation occurs on two levels: qualitative and quantitative (Astles et al., 2006). The qualitative assessment involves understanding the nature, severity, and potential consequences of each risk without assigning specific numerical values (Corominas et al., 2014). The quantitative assessment, involves assigning numerical probabilities and potential impacts to each risk. This dual assessment provides a comprehensive view of risks, both in terms of their qualitative characteristics and potential quantitative implications (Faiz, 2020). Depending on nature of risks, organizations can adopt various strategies to manage them. These strategies might include risk avoidance, risk mitigation, risk transfer, risk acceptance (Faiz, 2020). Each risk handling approach is chosen based on the organization's risk appetite, available resources, and potential impact of the risk. Lastly, process of risk management doesn't end with implementation of risk handling strategies (Hubbard, 2020).

It also involves continuous monitoring and tracking of identified risks (Hillson & Simon, 2020). This ongoing vigilance helps ensure that risks are being managed effectively and that any changes or developments are promptly addressed. Regular tracking allows organizations to adapt their risk management strategies as needed and to respond to new risks that may emerge. Risk management, as outlined by (Faiz, 2020) is structured approach that involves series of interconnected steps. First, it begins with identification of potential risks that could impact project, process, organization. The process of risk management doesn't end with implementation of risk handling strategies (Hillson & Simon, 2020). It involves continuous monitoring and tracking of the identified risks. This ongoing vigilance helps ensure that risks are being managed effectively and that any changes or changes

are sharply addressed. Regular tracking allows to adapt risk management strategies needed and to respond to new risks that may emerge over time (Alzoubi, 2022; Astles et al., 2006; Aven & Renn, 2020; Corominas et al., 2014; Favari, 2023; Hillson & Simon, 2020; Hubbard, 2020; Kerzner, 2015; Scheer et al., 2014).

Project Quality

Quality in the context of a project, product, or service pertains to degree to which its intended goals or other defining attributes align with the established requirements and needs (Nanda, 2005). In simpler terms, it's about how well project or product fulfills its purpose and meets the expectations of stakeholders (Urban & Kujinga, 2017). When project is executed according to planned timeline, remains within allocated budget, successfully achieves its set objectives, and effectively addresses the client's requirements, it is evident that the quality of project or product is of a high standard. In this scenario, the key elements of schedule adherence, budget control, goal attainment, and client satisfaction collectively contribute to indicating high level of quality (Mallawaarach & Senaratne, 2015). Once risks are identified, next step is to evaluate them. This evaluation occurs on two levels: qualitative and quantitative. Concept of performance introduces intriguing aspect, as its construal can vary among different individuals and contexts. Performance is multifaceted due to its ability to encompass diverse meaning. Besides, the complexity deepens because it includes not only tangible physical items but also intangible attributes that may not be as readily quantifiable (Al-Tabbaa, Ciulli, & Kolk, 2022).

This inclusivity makes concept of performance intricate, as it extends its influence to both concrete products and intangible characteristics, making it a comprehensive measure of success (Mikalef & Gupta, 2021). Project quality is essentially the ability of a project to effectively and satisfactorily fulfill its intended purpose or function (Alaloul et al., 2020). These risks could be related to various factors, such as financial uncertainties, technical challenges, market fluctuations, or unforeseen events. Once risks are identified, next step is to evaluate them. This evaluation occurs on two levels: qualitative and quantitative. Each risk handling approach is chosen based on the organization's risk appetite, available resources, and the potential impact of the risk. The bulk of programs need an office setting that upholds the ideals of effective project management in order to run smoothly; this makes them unable to do it on their own (Schwalbe, 2009). It encompasses the successful execution of tasks, adherence to specifications, meeting stakeholder expectations, and achieving the desired outcomes. In other words, when project accomplishes its objectives and meets or exceeds established standards, it can be considered to possess high quality (Hussain, Xuotong, Maqbool, Hussain, & Shahnawaz, 2022).

Project Culture

Project Culture is formed by amalgamation of different cultures brought together by contracting parties involved in project (Kujala, Aaltonen, Gotcheva, & Lahdenperä, 2021). Within this context, specific cultural elements hold potential to serve as indicators for various organizational outcomes. For instance, certain cultural attributes can provide insights into project's effectiveness, fostering of a creative work environment, as well as the satisfaction of both customers and employees. In essence, collective cultural influences from parties involved contribute to shaping the overall atmosphere, values, and practices within project (Lasrado & Kassem, 2021). This, in turn, can have a profound

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impact on the project's overall performance, the level of innovation and collaboration within the team and the overall satisfaction of those engaged in or impacted by project. By understanding and managing these cultural dynamics, project stakeholders can work towards achieving favorable and successful outcomes in terms of project execution, team dynamics, and stakeholder satisfaction (Kumar & Sharma, 2018).

The project attitude represents the organization's overarching attitude towards projects. The bulk of programs need an office setting that upholds ideals of effective project management in order to run smoothly; this makes them unable to do it their own (Schwalbe, 2009). Project Culture typically refers to set of shared values, beliefs, behaviors, and norms that characterize how individuals within a project team/organization interact and work together (Urban & Kujinga, 2017). Remember that project culture is not static; it evolves over time based on actions and attitudes of everyone involved. By consciously nurturing positive project culture, teams can enhance effectiveness, collaboration, and project outcomes (Al-Tabbaa, Ciulli, & Kolk, 2022). It covers attitudes, communication styles, work ethics, collaboration methods, and overall atmosphere within project environment (Mikalef & Gupta, 2021). To align organizational roles, goals, and stakeholder engagement, PC must first be established. Insights that are widely accepted in societal, financial, matter of politics operational spheres that reduce organizational strain, improve relations and interaction, and hasten conclusion of projects (Höpner, 2005).

Project Risk Management & Project Quality

The relationship between Project Risk Management (PRM) and Project Quality is fundamentally intertwined (Dandage, Rane, & Mantha, 2021), with PRM playing a pivotal role in safeguarding and enhancing the overall quality of project outcomes (Atakul, Thaheem, & De Marco, 2014). PRM encompasses series of proactive steps, include risk identification, valuation, mitigation, continuous monitoring. These activities directly impact project quality by preemptively addressing potential disruptions, defects, or deviations from established quality standards. Effective PRM ensures that risks that could jeopardize project quality are identified and managed, leading to a smoother and successful project execution (Loch, DeMeyer, & Pich, 2011). PRM influences resource allocation, stakeholder satisfaction, and decision-making trade-offs, all of which have direct implications on project quality (Chapman, 2019). By integrating risk management plans with quality objectives, project teams can strike a balance between mitigating potential risks and achieving the desired level of quality, ultimately contributing to success and excellence of project (Motiar Rahman & Kumaraswamy, 2005).

Relationship between PRM & Project Culture

The intricate interplay between Project Risk Management (PRM) and project culture underscores the profound impact each has on other throughout the project lifecycle (Rivillas, Alegre, & Oltra, 2022). Project Culture, characterized by shared values, norms, and behaviors, significantly shapes the project environment, influencing team interactions, decision-making processes, and dynamics (Jackson, May, Whitney, Guzzo, & Salas, 1995). In parallel, PRM involves a systematic approach to identifying, assessing, mitigating, and monitoring risks to ensure successful project outcomes and

minimize potential setbacks. As these two elements converge, nuanced bond emerges, offering insights into how they coalesce to drive project success. An integral facet of this relationship lies in risk awareness and open communication. A project culture that encourages transparent dialogues among team members fosters an environment where potential risks are promptly identified and communicated. In this regard, this harmonizes seamlessly with PRM's fundamental goal of early risk recognition and effective communication, providing a solid foundation for managing uncertainties (Thaheem, 2014).

The risk tolerance embedded within the project culture intricately aligns with PRM's emphasis on informed decision-making. A project culture that embraces calculated risk-taking and innovation mirrors PRM's approach of assessing risks comprehensively, ensuring that potential impacts are weighed against potential rewards before strategic choices are made. Collaboration, a cornerstone of many project cultures, dovetails remarkably with PRM's collaborative nature. The exchange of diverse insights from cross-functional teams enhances risk assessment accuracy and empowers the development of robust mitigation strategies. This mutual reinforcement contributes to cultivation of a resilient project ecosystem (Lengnick-Hall & Beck, 2016). These activities directly impact project quality by early addressing latent troubles, defects, deviations from quality standards. The adaptability, highly valued in a progressive project culture, is harmoniously added by PRM's agile approach to risk response. As project circumstances evolve, PRM facilitates dynamic adjustment of risk management strategies, resonating with culture that readily embraces change and leverages it to its advantage. A learning-oriented project culture shares symbiotic bond with PRM's principles of continuous improvement.

Lessons gleaned from risk events, both during and post-project, provide invaluable knowledge that not only refines future risk management strategies but also contributes to ongoing refinement of the project culture itself. At helm of this interaction lies project leadership, a conduit that guides the fusion of PRM and project culture. Leaders who champion risk awareness and active PRM practices set the tone for the team, reinforcing a culture that is receptive to risk management methodologies and committed to proactively addressing potential pitfalls (Zhao, Hwang, & Low, 2013). In essence, PRM and project culture intertwine in reciprocal relationship that is jointly enriching (Alkhlaifat, Abdullah, & Magassouba, 2019). A robust project culture reinforces the tenets of effective PRM, fostering environment conducive to risk identification, mitigation, and collaboration. Conversely, PRM strengthens project culture by inserting risk-consciousness, flexibility, and incessant advance into its fabric. This synergy forms bedrock upon which successful projects are built, exemplifying how harmonious convergence of PRM and project culture can score triumph in face of uncertainties (Agarwal & Virine, 2019).

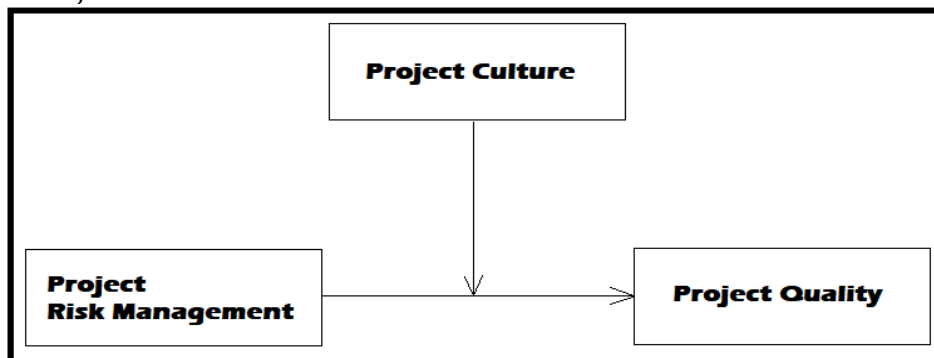
Moderating role of Project Culture between PRM & Project Quality

The concept of the moderating role of project culture between Project Risk Management (PRM) and project quality (Faiz, 2020) is a significant facet explored within the context of project management literature. This framework delves into the intricate dynamic wherein project culture acts as a moderating factor that influences the relationship between PRM practices and ultimate quality of project outcomes (Alkhlaifat et al., 2019). PRM, as systematic process about risk identification,

assessment, mitigation, and monitoring, has been extensively acknowledged for its pivotal role in pretty project quality (Agarwal & Virine, 2019) by abating potential troubles & uncertainties. Consequently, project quality could be compromised due to challenges in effectively addressing emerging risks or efficiently responding to uncertainties. However, the influence of project culture, which encapsulates shared values, norms, and behaviors within a project team, adds a layer of complexity to this relationship. The moderating role of project culture suggests that the impact of PRM practices on project quality can be influenced or modified by the prevailing project culture (Faiz, 2020). A positive, risk-aware project culture is likely to amplify the positive effects of PRM on project quality.

Such a culture encourages open communication, proactive risk identification, and collaborative risk mitigation efforts, effectively reinforcing PRM's mechanisms and bolstering the project's ability to maintain high-quality outcomes (Alzoubi, 2022; Guinan, Parise, & Langowitz, 2019; Faiz, 2020). On other hand, a less conducive project culture may impede full realization of PRM's benefits on project quality. In environment characterized by resistance to change, lack of risk consciousness, or inadequate teamwork, PRM practices might face barriers in implementation. Literature exploring the moderating role of project culture between PRM and project quality emphasizes importance of aligning these elements harmoniously. Recognizing that project culture significantly shapes how PRM practices are adopted executed offer valuable insights for project managers and stakeholders. By calming project culture that synergistically supports and enhances PRM efforts, organizations can optimize their ability to achieve superior project quality through the holistic and integrated approach. As such, this framework underscores intricate interplay between PRM, project culture, and project quality, offering a nuanced perspective for optimizing project success in a complex and dynamic environment.

Figure 1 Conceptual Framework



Research Hypotheses

- H1: Project Risk Management is associated with the Project Quality.
- H2: Project Risk Management Attributes influenced Project Quality.
- H3: Project Culture Moderates link between PRM & Project Quality.

RESEARCH METHODOLOGY

There are viewpoints on phenomenology and positivism (Saunders et al., 2003). While realists base their decisions on facts and data, realists believe in what happens behind the scenes. Find the truth as it is in reality (Robson, 2002). The philosophy of present is positivism. Descriptive and inferential statistics were employed for analysis in this study after adoption of instrument and distribution of questionnaires. Benefit of questionnaires is allowing researchers to quickly and cheaply gather large amounts of data.

Population & Sampling

Population refers to the entire group of people, events, or things of interest that researcher wishes to investigate (Babbie, 2002). Population for this study includes project managers/executives, employees of projects operating in southern districts of KP. Sampling is the practice of treating a subset of a population or universe as if it were entire population (Kerlinger, 1983). To test the data, researcher employed an easy sampling method. Utilizing formula Yamani (1967), the total sample in present study was calculated. In this connection, $n = \frac{N}{(1 + N \cdot e^2)}$. Wherein, (Margin of error) $e = 5\%$, (Population size) $N = 10000$, (Corrected sample size) $n = 10000 / (1 + 10000 \cdot (0.05^2))$. Thus, $10000 / 26, 384.6 \sim 385$.

As per above formula sample of the current research will be “385” project managers/executives, employees working in southern districts projects of KP. After receiving consent from organizations to obtain the information, the researcher distributed the questionnaires one by one and explained the purpose of the study. Then, respondents have 3–4 days to react. The research data was gathered from primary sources. Survey Questionnaire of Kareemi and Anol (2007), Iacovou and Jeff (2009) and Gold (2001) was adopted for project risk management, project quality and project culture for purpose of data collection. The descriptive statistic Skewness and Kurtosis was used to evaluate normal and reliability of data after it was imported into SPSS 20. Correlation, regression analysis. All of participants who were chosen for this study engaged voluntarily, were aware of its purpose, and gave their consent before any data were gathered. The confidentiality of the responders’ data was also guaranteed.

FINDINGS OF STUDY

Table 1 Descriptive Statistics

	N	MIN	MAX	Mean	SD	Skewness		Kurtosis	
	STAT	STAT	STAT	STAT	STAT	STAT	SE	STAT	SE
PC	305	2.86	5.00	3.8679	.45392	.267	.140	-.061	.278
PQ	305	2.40	5.00	3.2938	.62869	.757	.140	-.112	.278
RM	305	3.00	5.00	3.9633	.70540	.188	.140	1.055	.278
Valid-N	305								

Table provides a comprehensive overview of the minimum, maximum, and mean values, along with an assessment of the questionnaire’s normality. The skewness values for all items, as per outcomes displayed in the aforementioned table, fall within the defined threshold range (< -2 and > 2), in line with criteria set by Hair et al. (2010) and Bryne (2010). Thus, evaluating data tailed-ness in the

frequency distribution, kurtosis is indicative of degree of distribution shape. As established by Hair et al. (2010) and Bryne (2010), kurtosis within the acceptable bounds of 7 and -7 is recommended. In this regard, notably, our study's kurtosis values lie within these prescribed ranges. Consequently, the data can be considered to exhibit the normal distribution, thus facilitating its utilization for the subsequent analysis.

Table 2 Reliability of Construct

SN	Construct title	Adopted	No. of Items	Reliability
1	Risk Management	(Karimi & Anol, 2007)	5	.903
2	Project Culture	(Gold & H, 2001)	7	.703
3	Project Quality	(Iacovou & Jeff, 2009)	5	.704

Table shows details about items reliability statistics of the adopted constructs from previous studies. According to (Taber, 2018; Adeniran, 2019) the acceptable range of reliability for questionnaires is higher than (.7). In our study the values for all the construct are higher than (.7) as per the given results from analysis.

Table 3 Correlation among Variables

	Perceived Culture	Risk Management	Project Quality
Project Culture	1		
Risk Management	.711**	1	
Project Quality	.598**	.245**	1

Table shows relationship between inter relationship of major variable of study and demographic attributes. Although gender and age were controlled during regression analysis. Findings shows that highest correlation (.711) exist between project culture and risk management, while only 24% correlation exist between risk management and project Quality. According to the general rule of thumb correlation values between (0.2 & 0.4) are moderate nature, while higher than (0.7) shows stronger correlation (Gorsuch & Lehmann, 2010; Hassan & Abdullah, 2014). Relationship between Project quality and project control is (.598), which means that project quality and control having moderate relationship.

Table 4 Regression Analysis Risk Management on Project Quality

Model Summary						
Model	R	R Square	Adjusted R2	SEE	F	Sig.
1	.245a	.060	.057	.67892	19.353	.000
Coefficients						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.569	.189		13.601	.000
	Risk Management	.218	.049	.245	4.399	.000
Project Quality						

Table shows detail information for simple regression amid project quality as dependent variable and project risk management as an independent variable. According to the findings beta value for

project risk management is (B=.218) confirm that 1% reduction in risk over affective management leads to improve (21%) of project quality. H1 is accepted as project risk management has significant impact on project quality.

Table 5 Regression Analysis Risk Management on Project Culture

Model Summary						
Model	R	R Square	Adjusted R2	SEE	F	Sig.
1	.761a	.579	.577	.39250	416.056	.000
Coefficients						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.499	.109		13.729	.000
	Risk Management	.584	.029	.761	20.397	.000
Project Culture						

Table shows the detail information for simple regression between Project culture as a dependent variable and project risk management as an independent variable. According to the findings beta value for project risk management is (B=.584) which confirm that one percent reduction in risk through affective management will leads to improve (58%) of project culture. H2 is accepted that Project Risk Management has significant relation with Project Culture as per results obtained over regression procedure.

Table 6 Regression Analysis for Project Culture on Project Quality

Model Summary						
Model	R	R Square	Adjusted R2	SEE	F	Sig.
1	.598a	.357	.355	.56141	168.428	.000
Coefficients						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.835	.199		4.201	.000
	Project Culture	.692	.053	.598	12.978	.000
Project Quality						

Table shows the detail information for simple regression between Project quality as a dependent variable and project culture as independent variable. According to findings beta value for project culture is (B=.692) which confirm that 1% improvement in project culture through stranded procedures leads to improve (69%) of project culture. H3 is accepted that project culture has effect on project quality.

Table 7 Moderating effect of Project Culture on Project Quality

Model Summary						
Model	R	R Square	Adjusted R2	SEE	F	Sig.
1	.245a	.060	.057	.67892	19.353	.000b
Model	R	R Square	Adjusted R2	SEE	F	Sig.

2	.679b	.462	.456	.51555	86.011	.000c
Coefficients						
Model-1		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.569	.189		13.601	.000
	Risk Management	.218	.049	.245	4.399	.000
Project Quality						
Model-2		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
2	(Constant)	.886	.806		1.099	.273
	Risk Management	-.446	.243	-.502	-1.836	.067
	Project Culture	1.127	.215	.973	5.246	.000
	Risk Management* Project Culture	.002	.119	.006	.0151	.988
Project Quality						

Table shows details information about interaction effect of Risk management and project culture on project quality. In model, one shows significant relationship between project risk management and project quality. That shows weak but significant relationship between variable. Interestingly interaction effect of project risk management and project culture did not evident any significant strength with project quality. Based on findings from the above table it is evident that interaction effect of project culture has only 2 percent impact on project quality. That leads to the rejection of hypothesis that project culture moderates the relationship between project risk management and project quality.

CONCLUSION

The present study aims to investigate the correlation between project risk management and project quality, while considering moderating role of project culture within ongoing projects in southern districts of Khyber Pakhtunkhwa, with a specific focus on government projects in the construction sector. The study’s findings reveal a substantial and significant connection between the project risk management and project quality, suggesting that effective risk management is bossy for enhancing project quality. While risk is inherent phenomenon, organization grounded in quality management principles stress early-stage risk identification & evaluation. Comprehensive risk management approach extends beyond mere risk reduction, involving continuous monitoring and development of mechanisms to anticipate risk occurrences (Szymanski, 2017). In this linking, In the construction sector, project managers often possess an understanding of appropriate risk management strategies due to nature of contracts in Pakistan, which involve sequential transfers among different entities in diverse situation.

However, issues arise during execution due to inadequate managerial competence and limited risk management awareness, leading to compromised construction project quality. The project lead’s responsibility lies in preemptively identifying risks to prevent project delays. Effective risk prioritization involves categorizing risks, fixing on resolving early-stage issues that have potential

to halt projects. The project risk management directly influences budget, delivery time, efficiency, quality, safety, and environmental sustainability (Akinbile & Agboola, 2018), necessitating the incorporation of advanced risk management tools and experienced engineers. That shows weak but significant relationship amid variable. Interestingly interaction effect of project risk management and project culture did not evident any significant strength with project quality. This ensures cost reduction, on-time project completion, and effective risk management (Abas & Ahmad, 2015). The study's second hypothesis examines the correlation between project risk management and project culture, wherein culture embodies collaborative adherence to organizational rules and practices. In this regard, a strong organizational culture contributes to success by adhering to stipulated rules and regulations.

Implementing performance metrics, written guidelines for material placement and safety measures and ensuring employee compliance with tasks ease project failure risks. Project risk management activities like planning, organizing, risk identification, control, and monitoring align with effective employee observation during the work hours, minimizing project delays and safety concerns. The moderating role of project culture is explored, revealing that it doesn't exhibit substantial buffering effect amid project risk management and project quality. This could be attributed to construction sector's prevailing culture in Pakistan, where contractual dynamics often involve less qualified contractors hiring seasonal employees. As a result, project culture may not significantly apply to such temporary workers, leading to compromised project quality. This study, conducted for the first time, seeks to gather data from government construction projects pertaining to risk management protocols and regulations associated with project completion. Concurrently, examination is carried out to explore any potential correlation between project quality and effective risk management within the construction sector projects in southern districts of KP. The study offers a comprehensive understanding of how project managers perceive address risk, intrinsic significance of maintaining project quality.

The findings of this research highlight the proposition that the project senior management should meticulously sequence activities to mitigate the risk of project failure. Moreover, comprehensive education and training of all employees is advocated to enhance their comprehension of risk factors and their adeptness in responding to such risks. To this end, the study underscores the importance of deploying computer applications for tasks like soil selection, laboratory testing, and proficient quality management practices. This strategic approach is recommended to mitigate the likelihood of project failure. Ensuring that technical staff is sufficiently trained to capably employ computer applications for optimized project management and daily progress tracking is also emphasized. Notably, this study contributes to the utility theory by expanding its applicability to individual decision-making in the face of challenges. The utility theory, rooted in the economic rationality of game theory, and traditionally informs consumer choices. However, this study takes the unique perspective by examining the individuals' decision-making processes during the risk management phase. In doing so, the research ventures into uncharted territory by investigating the intricate interplay between project risk management, individual behavior, and project culture through the lens of utility theory.

Recommendations for Future Studies

1. Data was obtained through Questionnaire at once, however future researcher may get the data before the starting of the project as well as after the completion of the project.
2. In the current study risk management is investigated as a general concept however future studies may investigate different facets of risk management to understand the dynamic relationship more affectively.
3. Future studies may investigate other factors like quality control, six sigma and employee's emotional intelligence to understand the risk management more affectively.

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