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# The Influence of Innovativeness on the Success of Projects: Exploring the Moderating Effect of Project Manager Competency

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## **ABSTRACT**

Keywords:
Innovativeness,
Project success,
Project Manager
Competency.

The success of projects is becoming more and more dependent on innovation in the fast-paced commercial world of today. This study examines the connection between innovation and project success, emphasizing the moderating effect of project manager competency. Survey data was collected from 250 respondents and analysis was undertaken. The data reveal a substantial positive link between innovativeness and project success, implying that organizations that value innovation are more likely to achieve excellent project outcomes. Furthermore, the statistics show that this connection is tempered by the project manager's competency. More precisely, innovativeness has a positive effect on project success, which is exacerbated by highly competent project managers. These outcomes have important implications for practice and theory. From a theoretical approach, they contribute to our understanding of the aspects that drive success of the project and highlight the need of addressing both organizational innovation culture and project manager capability. Practically speaking, the findings show the need of investing in both innovation activities and project manager training and development to improve project success rates. This study has a few limitations: it only looks at one component of entrepreneurial orientation and does not explore the mediator influence, which opens up new avenues of exploration.

#### INTRODUCTION

In the dynamic business environment of today, companies are realizing more and more how crucial innovation is to the success of their projects. The ability to incorporate creative ideas and approaches has a substantial impact on project success, especially as industries become more competitive and customer expectations evolve. Although most people believe that innovation is crucial in project management, more study is needed to better understand the complex factors that influence how innovation and project success interact.

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This study addresses this necessity by examining the effect of innovativeness on project success and adds an important moderating factor—the PMC. Although the substantial research on PM innovation and project managers' roles in generating success, there is still a lack of knowledge about how these aspects interact. Recognizing the dynamic nature of modern projects, where adaptation and creativity are key, this study tries to explore the complicated interplay between organizational innovativeness, project manager competency, and PS. The relationship among innovation and PS has been studied recently (Olaisen & Revang, 2017). According to Martens, et al., (2018), innovation is a key component of what makes business ventures successful for entrepreneurs. The relationship between innovation and PS was examined by Leone and Schiavone (2019).

IT-related projects enable organizational transformation and growth. It has been observed that yearly global investments in IT are continuously increasing. Gartner-Inc predicts that in 2019investments in IT sector will reach up to \$3.79 trillion. These investments are intended to assist the organization in meeting its aims and goals (Petter et al., 2012). IT enables organizations to undertake complex IT-based change, which is increasingly project- or configuration-based (Miterev and Mancini, 2017; Turner and R. Müller, 2003). Despite advances in project management techniques and methodologies, IT projects continue to fail at a significant rate.

The notion of dynamic capacities addresses research gaps by arguing that project managers' competencies control the link between innovativeness and project success. Martens et al. (2017) prioritized innovativeness and project success over project manager abilities while establishing an entrepreneurial orientation for an organization. Previous study has not examined how project managers' abilities impact both innovativeness and project success. Lehtonen and Martinsuo (2006) found that while every initiative aspires for success, the success rate often falls short of expectations. Entrepreneurial orientation is a proactive approach to work that prioritizes the company's strengths, promotes proactive organizational procedures, and embraces high-risk conduct even in the face of potential failure (Lüdeke-Freund, 2020). Enhancing project success requires examining the entrepreneurial attitude of the organization and the project manager's capabilities. According to PMI (2013), project management involves applying knowledge, abilities, techniques, and methodologies to meet project related requirements.

It provides project criteria to be satisfied, specific goals to be reached, and to satisfy project criteria, adhere to predefined planning domains, budgets, and quality standards (Golubovi'c et

al. 2018). Turner & Muller (2003) describe a project as a short-term organization that allocates capitals to achieve distinctive, creative, and short-term goals. This involves managing inherent unpredictability and integrating to achieve fruitful change. One of the main or essential goals of every organization, among others, is project success. According to Iqbal et al. (2017), project success aligns an organization's strategic objectives with high levels of success, resulting in outstanding organizational growth. Whereas on a review of PM literature (McLeod et al., 2012) revealed no established success standards. According to Mir and Pinnington (2014), a project's success criteria has to be established based on its unique characteristics.

Technology usage in projects has significantly climbed as a result of recent technological breakthroughs. Technology is regarded as a catalyst for innovation and a possibly valuable source of information. Thus, in order to stay competitive, technology orientation encourages organizational innovation. Understanding technology for technology projects is possible (Makui et al., 2018), and its use has grown greatly (Anantatmula, 2008). According to Amoako-Gyampah et al. (2018), technology serves as a source of knowledge, a useful tool, and a method of creation. According to Yu et al. (2013), an organization that prioritizes technology fosters creativity and competitiveness. In Pakistan, project delays are often caused by incompetent project managers (ADB, 2018). However, project managers' abilities are thought to impact project success and innovative behavior. A thorough model is needed to improve project performance by including innovative mindset and project manager abilities. This paper presents a thorough model to address research gaps, limits, and issues.

The inspiration for this study stems from the awareness that managers perform a critical part in transforming creative ideas into tangible project outcomes. It is argued that their competence—which encompasses leadership traits, expertise, and skill sets—will either improve or lessen the impact of organizational innovation on project success. Organizations may gain information by researching this connection, which will help them make strategic decisions regarding managing projects and managing innovation. To cover these research gaps, we employ a comprehensive research process that quantitative research methods. This paradigm enables a more thorough understanding of the intricate interrelationships under study.

The conclusions of this research have the potential to shape upcoming research initiatives in the fascinating area of project PM and innovation, as well as organizational practices and project management training courses. Innovation in project management may take numerous



forms, from the introduction of new technology to the reinterpretation of project methodology. Organizations are investing more in fostering a culture that encourages innovative thinking, taking chances, and continuous improvement as they recognize the importance of innovation to project success. However, the road from innovation to project success is difficult, inclined by a range of external elements. The expertise of the manager is an extremely vital element in this respect. As the project's orchestrator, project managers guide teams through challenges, make critical decisions, and ensure that the company's goals are reached. Their competency, which comprises knowledge, skills, and leadership potential, may mitigate the relationship among innovation and project success. Despite the fact that the literature now in available acknowledges the importance of both innovative thinking and project manager expertise, there is a glaring knowledge gap regarding the ways in which these components interact. This study tries to bridge this gap by studying the moderating effect of PMC has in the link between innovativeness and project success. Acknowledging the project manager as a key participant in the innovation-to-success route deepens and refines our understanding of project dynamics.

### LITERATURE REVIEW

Moore et al. (2002) describe competence as a work area, competency as the conduct that supports a work area, and competences as the characteristics that support a behavior. PMC has been highlighted as a critical success element in forecasting project success or failure (Nixon et al., 2012). and they have been the topic of much debate in the literature. Woodruffe (1991) described competence as the capability to successfully complete a task. According to Crawford (2007), there may be a direct association among project performance and project management personnel competencies. The project can be completed with the required degree of quality, on plan, and within financial plan with the assistance of traditional PM procedures (Kerzner, 2017). However, as was already said, some authors draw attention to the continuous problems that projects faces, particularly those that contain scientific complication (Philbin, 2008), such those found in the information technology segments (Patanakul, 2014). If a worker is skilled and polished, and he is capable of handling the complexity of the task, he must be handled in addition to and above. Extensive literature suggests that if someone is suitable for the occupation, the worker will get more involved with the association at both the experienced and individual levels. Leadership has a significant inspiration on an organization's success and is a key factor in determining its innovation and originality. Competent project managers boost certainty in project-based

organizations by instilling positive assertiveness and values that encourage project success (Aga et al., 2016).

Project managers are used by a variety of project-based organizations in competitive environments to adapt quickly to conservational fluctuations and achieve organizational goals. The current literature on headship identifies many governance styles and their confidential effect on project success and organizational administration. Creative project managers may undermine their team members' accomplishments by serving as an entrepreneurial role model for the group and participating in tactical operations themselves (Renko et al., 2015). In addition to inspiring and nurturing their staff members' spirits to become involved in bringing about change and development in the workplace, skilled project managers also position themselves as leaders by participating in creative movements in entrepreneurial processes. As a result, there is a greater understanding of the importance of supervision.

Innovation is a synonym for overall organizational learning coordination, where the production of creative capabilities is the overarching goal rather than specific initiatives that determine success. Thus, strategy renewal and competitive advantages depend heavily on managerial innovation. In general, it appears essential for businesses to foster an environment that supports and fosters creativity within their workforce in order to inspire and promote such innovation. Success is difficult to define and assess. It might be calculated with reference to a specific development, the organization's comprehensive platform, or its goal. Rubera and Kirca (2012) demonstrated that employees' inventiveness eventually affects managerial worth through its effect on market conditions and financial positions, contrary to Davila, Epstein, and Sheldon (2006) who deny that identifying distinctions in invention can aid in improved organization enactment. The procedure of innovation is multi-phased, beginning with issue recognition and ending with the development of novel concepts. Subsequently, the staff members support and publicize these concepts in order to garner support for them. A workable plan is then developed to implement these concepts for the purpose of hundred percent success both in organizational and project level. De Silva, Howells, and Meyer (2018) found that comprehending and influencing the evidence structure of the innovative atmosphere allows invention mediators to create interior worth ranging from financial to not financial impacts by taking part in the mixed novelty progression.

Some authors have suggested that the actions of new businesses creating and introducing novel goods and technology to the market are connected to the increase in financial

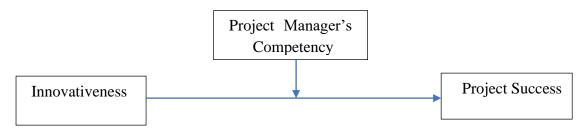


performance (Schumpeter, 1934; Brown & Eisenhardt, 1998). By starting their firm early and using all of the resources that have generated this advantage—such as expensive research and unique market research—organizations can get an advantage over their competitors (Zahra & Covin, 1995). Companies that undertake riskier ventures will ultimately reap more rewards (McGrath, 2001). According to PMBOKV R Guide, Sixth Edition (2017), PM is the procedure of shaping, coordinating, carrying out, supervising, and concluding a group's task to accomplish certain objects and satisfy particular success targets in a constrained amount of time. Scholars have employed several viewpoints to assess the performance of projects (Mir and Pinnington, 2014). According to Baccarini (1999), a project is traditionally seen successful when its scope is achieved in terms of performance in terms of time, money, and quality, and when it is well-managed in terms of project lifecycle management. Nonetheless, it is now widely acknowledged that metrics for evaluating a project's success should encompass a wider range of performance outcomes in addition to evaluations of cost, time, and quality (Thomas and Fernandez, 2008).

H<sub>1</sub>: Innovativeness significantly influences the project success

**H2:** Project Manager's Competency moderate the relationship between Innovativeness and Project Success

## Model of the study



Source: Author Developed

#### **METHODOLOGY**

This study is categorized as descriptive since it is based on quantitative data (Hair et al., 2005). A survey study methodology was employed to collect data (Gerhard & Silveira, 2009). Data on project success, innovativeness, and PMC were gathered by using a questionnaire. The innovativeness was measured using stretched indicators from Covin and Slevin's research (1989). For the project success subject, we used Shenhar and Dvir's (2010) research, which used indicators to evaluate PS. We utilized Clarke's (2010) study, which provided indicators to measure the manager competency subject. As a result, the data collecting tool

comprised five management competency indicators, four project success indicators, and eighteen indications of innovativeness.

Although there are several ways to gather data, structured written questions that were taken from other researchers' studies were employed in this study. The prime concentration of this study is hypothesis testing, so a questionnaire was used as the data gathering tool. Hard copy copies of the survey questionnaire are provided. The linear connection between the dependent, independent, and moderating factors is measured using correlation analysis. Using correlation, regression, and moderating analysis, the study's population-related variables' dimensions are investigated.

Population of the instant study is project managers of information technology sectors of Punjab province of Pakistan. A simple random sampling technique was employed to determine the sample size. Every member of a population has an equal chance of being chosen for a research sample when using a simple random sampling technique, which is a form of probability sampling (Sekaran, 2006). According to Krejcie and Morgan's finite population formula (1970), this research project requires a sample size of at least 270 to produce acceptable and generalizable results with a 95% level of confidence.

## **ANALYSIS**

Almost 300 surveys were delivered to public and private IT organizations in Islamabad, Rawalpindi and Lahore Pakistan. Consequently, 250 questionnaires were returned. Twenty out of 240 surveys were discarded because the respondents did not fill them out correctly. So, only 230 were chosen for analysis.

Table 1 summarizes the dependability of the study's instruments. SPSS software was applied to check the reliability of the instrument. Each value of the Cronbach's alpha is the fine and is deemed excellent. Georgy and Painting's (2003) clarified in the study findings, a Cronbach's ratio below 0.5 suggests the hypothesis is incorrect; nevertheless, a value in excess of 0.5 increases the likelihood of obtaining a result that is close to what is considered best and accepted. Thus, there is no impact on the instrument's reliability.

Table 1: Reliability Analysis

Factors	Acronym	Cronbach Alpha
Innovativeness	INV	0.732
Project Manager Competency	PMC	0.727
Project Success	PS	0.734

Table 2 presents correlations and descriptive data for the different outcomes. The relationship between PS and innovativeness as well as PMC's consistency (r = 0.476; p <0.01) should be



emphasized, since these findings seem to depend on this kind of study. Pearson correlation coefficients display that Innovativeness is vital for PS.

Table 2: Correlation Matrix and Descriptive Statistics

	Mean	SD	1	2	3	
INV	3.853	0.437	1.000			
PS	3.818	0.549	0.476**	1.000		
PMC	3.671	0.553	0.430**	0.315**	1.000	

<sup>\*\*</sup>At the 0.01 level, correlation is significant

Table - 3 summarizes the findings of the regression study that examined the association between innovativeness and project success. The results show that innovativeness was closely related to the PS. According to certain study, project leaders' innovativeness positively impacts the success of innovative activities, and innovativeness in project teams tends to boost PS (Ahmed et al., 2014). (Russo & Sbragia, 2007). According to Sajid et al. (2021), innovation has a positive and significant effect on PS. Thus, it validates Hypothesis 1.

Table 3: Regression Analysis

	Estimate	Std. Error	t-value	p-value
С	1.875	.276	6.710	0.00
INV	0.539	.056	7.242	0.00
	R-Square	0.139	F-Statistics	51.15
	Adjusted R <sup>2</sup>	0.136	P-Value	0.000

Table 4 depicts the findings of measuring the moderating role of project managers' competencies. Hypothesis 2 demonstrates that innovativeness and project success are strongly connected with PMC. The table below also acknowledges the PMC as a moderator in the association among innovativeness and PS. According to Irfan et al., (2021) PS is significantly improved by proper planning and expertise. Hence, it confirms Hypothesis 2.

Table 4: Moderation effect of PMC

	IV	DV	Estimate	S.E	T-Value	P-Value	LLCI	ULCI
1	INV	PS	0.831	0.267	3.126	0.002	0.306	1.343
2	PMC	PS	0.468	0.185	6.004	0.000	0.746	1.473
3	Int-1	PS	0.815	0.286	3.515	0.000	0.232	0.069
							$\mathbb{R}^2$	$\Delta R^2$
							0.212	0.002
F-Statistic	es						36.75	1.140
P-Value							0.000	0.000

## **DISCUSSION**

According to the current literature, a great deal of research has been done in the areas of strategic management and entrepreneurship to look at the relationship between innovation

and performance of the organization (Jeong et al., 2019). According to Pittino et al. (2017), conventional organizations have been the subject of the majority of research on the relationship between innovativeness and organizational effectiveness. Martens et al. (2018) highlight the value of innovation in project-driven firms and suggest that future study would look at other factors as well.

The study's goal was to investigate the association among innovativeness and project success in IT enterprises operating in Pakistani contexts. The study also looked at the association among innovativeness and PS, as well as the PMC as a moderator between the two. The research was done in the Pakistan's IT industry.

Since the literature hasn't gotten much attention in these areas, the study's findings—which show that innovativeness is positively associated with PS explain the impact of innovativeness track on project success and, in general, both PM and business (Martes et al., 2015). Subsequently, hypothesis H1 was supported. The PMC was integrated as a moderator to find the level and direction of innovativeness in order to concentrate on PS. After analyzing data from several exchanges, it was found that there was a significant relationship between the innovativeness and success of projects managed by project managers. As a consequence, hypothesis H2 is likewise supported.

### **CONCLUSION**

This study's main objective was to look at how innovativeness affects project success and how project manager competency functions as a moderator in IT businesses. In order to do this, information from IT companies was gathered via surveys in order to assess the influence of innovativeness on project success when moderator PMC is present. The outcomes of this study reflects that innovativeness affects the success of projects. This study opens up fresh perspectives on project success and facilitates a deeper comprehension of the intricate relationship between innovativeness and project success. The project manager must be capable of comprehending novel interactions within the INV-PS regulatory framework in addition to this moderator. Additionally, studies on the special linkages and influence of innovativeness on project success may show that innovativeness and project success are related to project management competency. Consequently, companies might be able to focus more precisely on the unique traits they wish to cultivate in order to add value to initiatives.

## Recommendations

Organizations should foster an atmosphere that promotes innovative thinking. This might include launching innovation programs and recognizing successful innovation. When



selecting project managers, evaluate their expertise and skill set in managing creative projects. Highly inventive initiatives may benefit from project managers with excellent innovation management skills.

## *Implications*

The project manager's competency appears to be an important determinant in the success of novel projects. This implies that organizations should spend in enhancing project managers' abilities to handle creative projects. Project manager competency may mitigate the association among innovation and project success. This suggests that the value of a highly qualified project manager may be even higher for creative initiatives than for standard ones.

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