



Organizational Agility as a Mediator between Project Management, Innovation, and Environmental Sustainability Practices on Project Success in the Construction Industry

¹M. Faisal Chaudhry, ²Muhammad Arshad & ³AR. M. Nasir Chaudhry

¹Master of Engineering University of Toronto, Project Management, Professional Calgary Canada

²HOD, Department of Construction Management, Federal Chartered Degree Awarding Institute for Art and Culture, Raiwind Road, Lahore, Punjab, Pakistan.

³Assistant Professor, School of Architecture, Design & Urbanism, Federal Chartered Degree Awarding Institute for Art and Culture, Raiwind Road, Lahore, Punjab, Pakistan

ABSTRACT

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This study investigates how project management practices, innovation initiatives, and environmental sustainability practices influence project success, with a focus on the mediating role of organizational agility in the construction industry. While previous research has examined these factors individually, few studies have explored their combined impact on project outcomes within a mediated framework. A quantitative research design was adopted, and data were collected from project managers and organizational leaders using structured questionnaires. Structural equation modeling (SEM) was applied to test the hypothesized relationships and mediation effect. The results indicate that project management practices, innovation initiatives, and environmental sustainability practices positively affect project success, and organizational agility significantly mediates these relationships, enhancing their overall impact. The study contributes original insights by integrating environmental sustainability and innovation in a mediated model, emphasizing organizational agility as a critical mechanism for achieving successful project outcomes. These findings provide practical guidance for managers and policymakers to improve project performance by combining structured management practices, innovative approaches, and sustainability considerations in the construction industry.

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Corresponding Author's Nasir Chaudhry, **Email:** nasir.chaudhry1@gmail.com

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1.0 Introduction

The construction business has been traditionally regarded as the base of the national development, economic growth, and the modernization of the infrastructure. However, as crucial as its role is, the sector continues to be characterized by complicated project environments, resource limitations, technological shocks, environmental forces and an increased expectation of stakeholders. The issues complicate the realization of project success and this is even becoming more problematic as construction projects keep on expanding to new height, uncertainty and interdependence. Conventional methods of project management can no longer be adequate where the realities of operations in the market are constantly changing with current regulatory changes and issues of environmental sustainability (Ansari, Kitchilan et al. 2025). Trying to meet the deadlines, keep the quality standards, and the cost control, enterprises have to address the changing economic conditions, incorporate the new technologies, and fulfill the requirements of environmental sustainability at the same time. This is a changing landscape that has heightened the interest in academia and the construction industry in learning more about strategic organizational aspects of successful project delivery within the construction environment. Among them, project management practices, innovation initiatives, and environmental sustainability practices have become the key determinants, but little is known about the overall effect and the mechanisms, by which they improve the performance of projects (Li, Sun et al. 2022).

Over the last several years, the construction companies have experienced more and more pressure to make their operations efficient, innovative, environmentally friendly, to stay relevant and adaptable to the global sustainability policies. The trends in the industry including digital construction, green building frameworks, and performance-based contracting compel organizations to incorporate progressive project management techniques along with developing an organizational culture that facilitates endless learning and adjustment. Such requirements highlight the weaknesses of strictly bureaucratic systems that prevent quick decision making and responsiveness (Askim and Christensen 2025). Therefore, the concept of organizational agility has been brought into the limelight as a strategic capability that allows companies to handle uncertainty, seize new opportunities, and successfully cope with disruptions. In construction industry where projects can take long periods of time and may have multidisciplinary teams, organization agility offers flexibility to adjust processes, redistribute resources and adopt new practices without affecting the stability of operations. Nevertheless, even though the importance of agility has been acknowledged, most of the past studies have mainly analyzed it as a predictor of performance instead of mediating state, wherein other organizational practices are related to project success. The existing gap shows that further examination of the relationship between agility and the existing project management practices, innovation-centered projects and sustainability-oriented approaches is necessary in order to improve the outcomes of projects (Bäumle 2025).

Project management practices are defined as planned procedures, tools, and techniques that shape planning, implementation, tracking, and supervision of projects over the project lifecycle. These practices bring transparency, minimize uncertainties, and keep the project goals in line with organizational objectives. Although there is a wealth of literature to aid the affirmative association

among project management practices and project performance, there is an emergent literature that suggests that structured practices are inadequate in volatile and uncertain environments. Innovation initiatives which are simply the conscious efforts made by organizations to create, embrace or adopt new ideas, new technologies or new processes are ever gaining importance as a source of competitive advantage and performance enhancement. Innovation in construction is possible in terms of digital technologies (e.g., Building information modeling, automation), materials, new project delivery, or improved management methods. Similarly, environmental sustainability practices entail the incorporation of environmental concerns in planning and execution of projects in order to limit environmental impact, enhance resource efficiency and ecological balance in the long term (Kalogiannidis, Kalfas et al. 2023). With the pressure to become more sustainable in the international scene, construction companies need to incorporate them not as part of the regulatory requirements but as a strategic necessity that enables them to increase their reputation, minimize waste, and expand the value of their projects in general. The role of each of these variables in project outcomes alone is significant, but it is the dynamism of their relationships that look forward to greater empirical exploration especially through the prism of organizational agility (Christofi, Chourides et al. 2024).

Organizational agility has often been framed as a part of the dynamic capabilities theory which assumes that companies have to restructure their resources and processes in response to the changes in the environment. Agility entails the ability of a firm to detect the changes in the environment through its ability to respond fast to new opportunities or threats, and adjust internal structures in response to these changes. Agility is a key intermediary between formalized project management and flexibility requirements in construction environments where the project requirements may change quickly, there are some unpredictable site conditions, and stakeholders may have varied demands (Bonomi Savignon and Costumato 2024). The theoretical connection between agility and the predictors under study is a result of a number of literature streams. The procedural basis of project management practices gives the ability to act in a coordinated manner; but, agility gives organizations the ability to change the practices when things start going afar as planned. Any innovation effort must have an agile culture that helps to experiment, work across-functions, and iterate quickly. Likewise, environmental conservation activities usually require the responsive actions to the shifting legislation, the expectations of stakeholders, and the environmental factors. In this way, based on the dynamic capabilities theory, it can be assumed that organizational agility can be viewed as a mediating process by which project management, innovation, and sustainability activities potential are translated into project success (Al-Hashimy, Yao et al. 2025).

Even though the existence of a large literature on the determinants of project success has been documented, there are still various research gaps. To begin with, the majority of the available research studies focus on project management, innovation, and sustainability separately and do not study them as an entity in a unified framework. Such a piecemeal approach would hamper the knowledge on how such variables interact in bringing about the performance of the project, especially when they are undertaken together such as in the current construction projects. Second,

despite the increasing popularity of organizational agility as a strategic capability, there are few studies on its mediating position. Most of the past literature examines agility as a direct antecedent of performance, but its role as an enabling factor that helps other organizational practices to be more effective is not well studied, particularly in the construction industry (Jaafar, Khan et al. 2025). Third, current research would tend to lean towards more technological or operational based research, which would not take into consideration the wider organizational context within which projects are running. It is a limited view that limits the knowledge of the interaction of the organizational-level capabilities, including agility, with project-level practices to influence the outcomes. Fourth, empirical evidence has not been obtained in developing economies where construction industries are unique in their circumstances such as resource limitation, inconsistencies in regulations and vulnerabilities of environment. These situational subtleties underscore why there is a necessity to conduct a study that reflects the real-life construction environment and especially where project failure rates continue to be high (Sartzetaki 2025).

The combination of these gaps has resulted in the creation of a powerful research problem in that despite the increased use of sophisticated project management tools, innovative technologies, and sustainability-focused strategies, the success rate of the projects is not consistent so further organizational capabilities might be required to realize the full potential of these practices. Lacking the knowledge of how agility mediates between the outcome of the practices and project outcomes, managers can invest all their resources in a new technology or advanced system of project management without getting the desired changes (Zangana, Omar et al. 2025). Lack of a unified theoretical framework which integrates these variables also makes it more difficult to make managerial decisions that are fragmented resulting in incomplete capitalization of organizational strengths. Hence, the main issue the current paper deals with is the limited knowledge concerning the role of organizational agility as a mediating capability that can augment the role of project management, innovation programs, and environmental sustainability practices on the success of the projects in the construction sector (Hsieh, Yang et al. 2025).

2.0 Literature review

The theoretical basis of this research is rooted on the main theory being the Dynamic Capabilities Theory (DCT) which argues that organizations ought to continually redefine their assets and processes so that they can react favorably to their swiftly evolving environments (Teece, 2007). It is in this context that organizational agility becomes one of the key dynamic capabilities through which firms can become aware of the changes in the environment, grasp and opportunity, and adapt operational processes to them. Construction projects have an uncertain nature and are frequently influenced by the changing needs of the clients, market forces, and unforeseen onsite complications requiring agility as a key factor in ensuring a competitive edge. DCT is also an addition to the tenets of the Contingency Theory in that it postulates that organizational practices, including project management, innovation, and sustainability, can produce optimal results only in accordance with the contextual requirements (Donaldson, 2001). Moreover, the Resource-Based View (RBV) supports the idea that organizational capabilities, especially the capabilities embedded in routines and knowledge systems are decisive in attaining the project success (Barney,

1991). Collectively, these theoretical prisms justify why the project management practices, innovative capabilities, and sustainability initiatives need an enabling mechanism, organizational agility, to generate the same and improved project performance. Therefore, agility is not only a direct performance enhancer, but also a mediating capability that increases the effectiveness of organizational strategies in complex project environments.

Empirical project management practices have always shown their relevance in enhancing the performance of a given project especially in a construction environment. The best practices in project management make planning more accurate, risk-free, coordinated, and allocate resources in time and cost-efficient projects (Kerzner, 2018). Research has revealed that standardized procedures like PMBOK and PRINCE 2 make a project more transparent and easier to make decisions (Papke-Shields et al., 2010). In the most recent empirical researches conducted in the construction field, the firms that follow the standardized project management practices have a higher predictability and consistency of performance in even unstable market conditions (Sinesilassie et al., 2020). Nevertheless, it is stated by scholars that inflexibility in terms of structured practices can impede flexibility in the rapidly changing project environment (Hobbs and Aubry, 2018). This is a weakness that underscores the necessity of enabling mechanism, in this case organizational agility, so that the project management systems are not so bureaucratic. Therefore, clarification of the interaction's agility has with and the improvement of project management practices becomes essential to clarify the differences in project performance observed in different organizational settings.

Innovation has also become a key success factor in projects particularly where there is a high rate of technological change in the industry. Building Information Modeling (BIM), automation, cloud collaborative programs, AI-powered project monitoring, and other digital technologies are becoming the new trends that construction companies are embracing in a bid to enhance efficiency in their operations (Succar, 2015). Innovation projects aid companies in bringing new materials, improving the precision of design, and simplifying purchases and implementation. Experimental research points to the fact that innovation helps to achieve better quality, less rework, and greater satisfaction of stakeholders (Ozorhon, 2013). Nevertheless, innovation programs frequently need organizational cultures that embrace experimentation, cross-functional cooperation, and rapid iteration-qualities, which are closely linked with organizational agility (Daspit et al., 2020). Innovations are hard to spread in inflexible settings thus limiting their utility in spite of massive technological investment. Recent analysis establishes that organizations in the construction sector that are more agile can more easily introduce technological innovations in current workflows, transform innovative ideas into operational solutions, and real-time adjustment processes when new innovations need change (Chen et al., 2022). In such a manner, agility seems to be an essential process of converting innovation efforts into actual improvements of the project.

The practice of environmental sustainability has been popular because of the concerns of global climate, as well as, the pressure of regulation and the growing demands of clients towards the environmentally friendly construction. These practices include energy efficiency, minimization

of waste, responsible sourcing of the materials and adherence to the principles of the green buildings such as LEED and BREEAM (Durdyev et al., 2018). Empirical studies indicate that sustainability practices can be used to minimize environmental impact in addition to enhancing long run cost efficiency, brand image and stakeholder confidence (Darko and Chan, 2016). Research in construction indicates that companies that incorporate sustainability into the initial stages of project planning have superior outcomes in their projects through the reduction of environmental risks, as well as the sweep of expensive regulatory fines (Ametepey & Ansah, 2015). Though, sustainability efforts tend to make organizations continually monitor their activities, make quick decisions and adjust to changing environmental policies-which are also very much related to organizational agility (Nawaz and Koc, 2018). The sustainability practices without agility can be turned into meaningless checklists, not strategic value drivers. The empirical data shows that agile organizations tend to be more effective in adopting the sustainability viewpoint into the project decision making, adapting to the new regulatory frameworks, and integrating the environmental conditions into the project life-cycle (Martinez-Conesa et al., 2017). All these findings indicate that agility enhances the benefit of sustainability interventions on the success of project.

Generally, the concept of organizational agility itself has gained growing acceptance in the literature of management and the construction industry, in part because of the growing uncertainty and complexity in the project environment. Organizational agility is an organizational capability of perceiving opportunities and threats, reacting rapidly and internal system responsiveness (Doz and Kosonen, 2010). Empirical research demonstrates that agile construction companies are better able to adapt to uncertainties, solve on-site issues, speed up the decision-making process, and focus the team on evolving targets (Hosseini et al., 2017). Agility promotes communication, decentralized decision making, and sharing of knowledge within project teams, which lead to better performances of projects. Studies also indicate that agility is mediating some of the organizational relationships that include innovation-performance and knowledge management-performance (Nguyen and Ngo, 2020). This causes further argument that agility, in addition to being a standalone capability, is a transformative mechanism which allows other organizational practices to have increased impact. Nevertheless, empirical research on the role of agility as a mediator in the outcome of construction projects is still limited, which has also become a major gap in the literature.

3.0 Methodology

The study population consisted of professionals in the Pakistani construction industry, a setting in which the industry is a key contributor to the national development but has been characterized by structural issues in terms of construction projects performance, the uptake of technology and sustainability integration. The stakeholders engaged in project planning and execution include population of project managers, engineers, site supervisors, consultants and stakeholders with direct involvement in the project. These people have the appropriate knowledge and experience on the practice of project management, innovation, sustainability programs, and responsiveness of an organization, and thus they are the right people to be included in the study.

Since the construction industry in Pakistan is a diverse industry, which represents both government infrastructure developments, individual construction companies, real estate developers and engineering consultants, there was a need to make sure that the sample chosen was representative enough to reflect the heterogeneity of the industry. In order to do so, the non-probability purposive sampling technique was employed and the participants comprised those who played significant roles in decision making or were involved directly in project management processes. The purposive sampling method is the right sampling method in studies that aim at obtaining the knowledgeable respondent who has the capacity to give valuable information about the constructs being abstracted.

The sample size was also calculated according to the recommended number of respondents in Structural Equation Modeling (SEM) that indicated that the minimum sample should be 10 respondents per indicator variable or 200 respondents in complex models that include mediation. Following these suggestions, the research aimed to have a sample population of 300 respondents, which would be sufficient in terms of statistical power, stability of the model, and the generalizability of the findings. The structured survey questionnaire was used to gather data based on the validated scales of all latent constructs that are designed to measure them. The questionnaire was a set of closed-ended questions on a five-point Likert scale, strongly disagree to strongly agree, where respondents were asked to indicate the level, to which they agreed with certain declarations pertaining to project management practices, innovation initiatives, sustainability practices, organizational agility, and project success. Before a complete roll out, the instrument was piloted on a small group of construction professionals to establish the clarity, reliability and content validity. The pilot feedback was used to improve the words, remove ambiguities, and improve the validity of the instrument in general.

The methods of data collection were both online and on-field to maximize the response rates and make sure that the geographical regions represented throughout Pakistan were represented, and such construction centers like Lahore, Karachi, Islamabad, Peshawar, and Multan were included. The online surveys were sent through email and through the professional networks, and the hard copies were distributed at the construction project sites, offices and industry seminars where access to digital platforms was restricted. Respondents were free to take part in the survey, and there were attempts to facilitate them with sufficient time to fill out the instrument and no stress. To improve the quality of the response, the participants were informed about the aim of the study, confidentiality of their answers and the necessity to provide the quality information relying on the professional experience. Online and manual data collection methods enabled an expansion in the sample, as well as minimized the chances of non-response bias.

After data collection was done, responses were filtered on completeness, consistency, and accuracy and incomplete and invalid questionnaires were excised out of the dataset. The other valid responses were estimated with the help of the Partial Least Squares Structural Equation Modeling (PLS-SEM), which is a sophisticated statistical method that is very suitable when conducting a study that involves the complex models, mediation analysis, and latent constructs. The reason why PLS-SEM was adopted is that it does not have strict requirements in regard to the

data normality, it is also appropriate in relatively small to medium sample sizes and can be used to analyze both measurement and structural models simultaneously. The SmartPLS software was used to conduct the analysis with the first stage being measurement model evaluation to test reliability, convergent, and discriminant validity. After establishing satisfactory measurement properties, the structural model was estimated to establish the significance, as well as, the strength of the hypothesized relationships between the variables. It has used bootstrapping processes to check the mediation effect of organizational agility, which gives strong estimates of path coefficients and significant values. The chosen method of analysis has provided a full validation of theoretical constructs as well as their relationship with one another in the proposed model.

4.0 Results

4.1 Reliability Analysis Table

Table 4.1 Reliability Analysis

Construct	Cronbach's Alpha	Composite Reliability (CR)	Interpretation
Project Management Practices (PMP)	0.842	0.891	Reliable
Innovation Initiatives (INN)	0.857	0.903	Reliable
Environmental Sustainability Practices (ESP)	0.831	0.878	Reliable
Organizational Agility (OA)	0.865	0.910	Reliable
Project Success (PS)	0.879	0.922	Reliable

The reliability analysis shows that all the constructs adopted in the study have a high level of internal consistency and measurement reliability. Project Management Practices (PMP) attained Cronbach- Alpha of 0.842 and Composite Reliability (CR) of 0.891 which indicates that the items are always regarded as measuring what is being meant. On the same note, the Innovation Initiatives (INN) and Environmental Sustainability Practices (ESP) are highly reliable as shown by the Cronbach Alpha of 0.857 and 0.831 and the CR of 0.903 and 0.878 respectively, indicating that the measurement items are reliable and co-herent. The reliability of Organizational Agility (OA) is also strong with a Cronbachs Alpha of 0.865 and a CR of 0.910 which means that the construct is reliably measured amongst respondents. Last but not the least, Project Success (PS) has the highest reliability of all constructs, Cronbachs Alpha is 0.879, CR is 0.922, it was found to be very consistent and stable in terms of the measurement scale. All these findings together prove that all constructs are sufficiently measured, which forms a firm basis in the further evaluation of validity and structural model.

4.2 Convergent Validity Table (AVE)

Table 4.2 Convergent Validity

Construct	AVE	Interpretation
Project Management Practices (PMP)	0.612	Satisfactory
Innovation Initiatives (INN)	0.645	Satisfactory
Environmental Sustainability Practices (ESP)	0.598	Satisfactory
Organizational Agility (OA)	0.667	Satisfactory
Project Success (PS)	0.671	Satisfactory

The convergent validity test, as they are represented by the Average Variance Extracted (AVE) values, proves that all constructs in the study attain satisfying levels of shared variance between individual indicators. The AVE of Project Management Practices (PMP) is 0.612 which means that more than 61 percent of the variance in the indicators is attributed to the construct itself, which is a good convergent validity. The AVE values of 0.645 and 0.598 of Innovation Initiatives (INN) and Environmental Sustainability Practices (ESP) are also satisfactory, which confirms the measurement items of these constructs are sufficient to measure the constructs. The AVE of Organization Agility (OA) is 0.667, and Project Success (PS) is 0.671, which is larger than the standard recommended value of 0.50, which implies that the difference between these two indicators is explained by the constructs, as opposed to measurement error. On the whole, these findings support the idea that all constructs have high levels of convergent validity and thus give significant assurance that the observed variables can be effectively used to measure the intended theoretical constructs and can be used to evaluate their theoretical structural models.

4.3 Discriminant Validity (HTMT)

Table 4.3 Discriminant Validity

Construct	PMP	INN	ESP	OA	PS
PMP	1				
INN	0.721	1			
ESP	0.693	0.674	1		
OA	0.752	0.761	0.718	1	
PS	0.701	0.734	0.692	0.789	1

The assessment of discriminant validity based on the HTMT (Heterotrait-Monotrait) ratios shows that all constructs in the model are different to each other, and it proves that every construct is used to measure a different theoretical concept. The values of HTMT are between 0.674 and 0.789 with none exceeding the conservative value of 0.90 proving that there is no problem of multicollinearity or lack of overlap between constructs. PMP is moderately correlated with

Innovation Initiatives (INN, 0.721), Environmental Sustainability Practices (ESP, 0.693), Organizational Agility (OA, 0.752), and Project Success (PS, 0.701), which implies the presence of meaningful, but not excessive relationships. On the same note, INN, ESP, and OA are moderately correlated with other constructs, with OA having the highest correlations with INN (0.761) and PS (0.789), as it is in the middle of the model. Altogether, the HTMT outcomes prove the high discriminant validity, which suggests that each construct measures different dimensions of the project performance, innovation, sustainability, and agility of organizations and is appropriate to be involved in a structural model analysis.

4.4 Collinearity Assessment (VIF)

Table 4.4 Collinearity Assessment

Predictor	VIF	Interpretation
PMP	2.134	Acceptable
INN	2.267	Acceptable
ESP	2.329	Acceptable
OA	2.142	Acceptable

The check of the collinearity through Variance Inflation Factor (VIF) shows that all predictors in the model are within the acceptable range, and thus, multicollinearity is not an issue. The VIF of Project Management Practices (PMP) is 2.134, Innovation Initiatives (INN) is 2.267, Environmental Sustainability Practices (ESP) is 2.329, and Organizational Agility (OA) is 2.142, which are less than the generally accepted value of 5. These values affirm that the predictors are not too much dependent on each other, and their respective effects on the endogenous variable, Project Success (PS), could be efficiently estimated. As a result, the structural model is capable of generating constant and objective path coefficients so that the explanations of the associations that exist between the project management practices, innovation, sustainability, organizational agility, and project success are valid.

4.5 Model Fit Indices

Table 4.5 Model Fit Indices

Fit Index	Value	Recommended Threshold	Interpretation
SRMR	0.058	< 0.08	Good Fit
NFI	0.915	> 0.90	Acceptable Fit
RMS Theta	0.072	< 0.12	Acceptable Fit

The model fit analysis shows that the presented PLS-SEM model represents the observed data in a generally good way and has a sufficient fit. The Standardized root mean square residual (SRMR) is 0.058 which is lower than the appropriate value of 0.08 meaning that the assumptions made in the hypothesized model fit quite well with the empirical data. The Normed Fit Index (NFI) of 0.915 is greater than a null model minimum of 0.90 indicating that there is a reasonable fit of the model as opposed to a null model. Further, the value of RMS Theta is 0.072, and it is lower than the 0.12 value, which once more proves the good model fit and represents that the residual are in acceptable range. The aggregate of these indices indicates that the measurement and structural elements of the model are highly defined, and they form a strong foundation on which the interpretation of the path relationships and mediation effects of the structural model can be done.

4.6 Structural Model Results (Direct Effects)

Table 4.6 Structural Model Results

Hypothesis	Path	β (Beta)	t- value	p- value	f ²	Decision
H1	→ PS PMP	0.314	5.842	<0.001	0.102	Supported
H2	→ PS INN	0.286	5.113	<0.001	0.087	Supported
H3	→ PS ESP	0.269	4.987	<0.001	0.074	Supported
H4	→ OA PMP	0.392	6.124	<0.001	0.118	Supported
H5	→ OA INN	0.371	5.984	<0.001	0.112	Supported
H6	→ OA ESP	0.345	5.401	<0.001	0.105	Supported
H7	→ PS OA	0.422	6.678	<0.001	0.136	Supported

The findings of the structural model suggest that all of the hypothesized relationships are statistically significant and in the correct direction, which supports the importance of the critical role of project management practices, innovation initiatives, environmental sustainability practices, and organizational agility in increasing the project success. The moderate effect sizes of Project Management Practices (PMP), Innovation Initiatives (INN) and Environmental Sustainability Practices (ESP) have a positive influence on Project Success (PS), with a $b = 0.314$ ($t = 5.842$, $p < 0.001$, $f^2 = 0.102$), innovation Initiatives (INN), and Environmental Sustainability Practices (ESP), respectively. Also, Organizational Agility (OA) is significantly improved using all three predictors, PMP - OA ($b = 0.392$, $t = 6.124$, $f^2 = 0.118$), INN - OA ($b = 0.371$, $t = 5.984$, $f^2 = 0.112$) and ESP - OA ($b = 0.345$, $t = 5.401$, $f^2 = 0.105$) indicate that the three organiz Lastly,

OA alone has a strong positive influence on PS ($b = 0.422$, $t = 6.678$, $p < 0.001$, $f^2 = 0.136$), thus, it is in the middle of the effects of project management, innovation, and sustainability programs. On the whole, direct and indirect pathways are supported by the obtained results indicating that both represent important variables in the context of the hypothesized conceptual framework.

4.7 Structural Model Results (Mediation: Indirect Effects)

Table 4.7 Structural Model Results

Path	Mediation β	Indirect value	t- value	p- value	Effect Size	Mediation Type
→ PS	PMP → OA	0.165	5.401	<0.001	Medium	Partial
→ PS	INN → OA	0.156	5.213	<0.001	Medium	Partial
→ PS	ESP → OA	0.145	5.098	<0.001	Medium	Partial

The mediation analysis shows that Organization Agility (OA) is a significant mediator of the relationships between the independent variables-Project Management Practices (PMP), Innovation Initiatives (INN) and Environmental Sustainability Practices (ESP) and the Project Success (PS). In particular, the indirect effect of PMP on PS is 0.165 ($t = 5.401$, $p < 0.001$), OA; indirect effect of INN is 0.156 ($t = 5.213$, $p < 0.001$), and ESP is 0.145 ($t = 5.098$, $p < 0.001$). The medium effect sizes and type of partial mediation provide an indication that however OA is applicable in terms of its significance in transmitting and enhancing the positive influence of said practices on project success, direct impacts of the independent variables on PS are also of importance. This underscores the significance of OA as a key process that promotes the success of projects by facilitating the flexibility of organization, its effectiveness in innovation and incorporating sustainability practices into project implementation, thus amplifying the overall influence of the aforementioned antecedent issues on the success of projects.

5.0 Discussion

The results of this paper provide significant information about the variables that impact the success of project completion in the construction sector specifically through the prism of organizational agility. The outcomes of the structural model show that Project Management Practices (PMP), Innovation Initiatives (INN) and Environmental Sustainability Practices (ESP) are associated with a significant positive influence on Project Success (PS). This shows that the construction projects enjoy the benefit of organized planning, resource management and project implementation plans, which are the principal pillars of the realization of the desirable results. Moreover, the beneficial effect of innovation programs has led to the fact that organizations need to incorporate new methods, technologies, and processes in their project activities. Using new solutions, the construction companies will be able to be more efficient, dynamic to respond to

different project environments, and proactive in solving emerging challenges. In the same manner, the beneficial impact of environmental sustainability practices also shows the increasing relevance of considering ecological and social implications of a project planning and implementation that is not only necessary to meet the requirements of the regulations but also to contribute to the reputation of the organization and the sustainability of the project in the long run.

M. Faisal Chaudhry: Problem Identification and Theoretical Framework

Muhammad Arshad: Data Analysis, Supervision and Drafting

AR. M. Nasir Chaudhry: Methodology and Revision

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