

The impact of technological innovation on project management performance: The mediating roles of sustainability culture and top management support

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ABSTRACT

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This study investigates the influence of technological innovation, sustainability culture, and top management support on project management performance in Saudi Arabia's manufacturing sector. Employing a cross-sectional quantitative research design, data was collected from 293 employees using a convenience sampling technique. Structural Equation Modeling (SEM) with SmartPLS software was utilized for data analysis to examine the proposed relationships between the constructs. The findings indicate that technological innovation has a significant positive effect on both sustainability culture and top management support. Furthermore, both sustainability culture and top management support were found to positively influence project management performance. The results underscore the critical role of technological advancements in fostering a culture of sustainability and obtaining strong leadership support, which in turn contributes to enhanced project outcomes. This study offers important insights for the manufacturing sector in Saudi Arabia, particularly as it aligns with the country's Vision 2030 objectives, aiming to diversify its economy through innovation, sustainability, and enhanced project performance.

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1. Introduction

The manufacturing sector is one of the most critical components of economic development, particularly in emerging economies (Sallam, 2021). The manufacturing sector has been a cornerstone of economic activities for decades in Saudi Arabia, contributing significantly to the nation's GDP and employment. With the Saudi government's Vision 2030 initiative that aims to change the economy away from oil dependency and develop sustainable industries, the manufacturing sector is expected to play a leading role in this transformation (Alanazi, 2025). As such, enhancing the performance of manufacturing projects has become increasingly important. In this regard, improving Project Management Performance (PMP) is a key focus, as efficient project execution is fundamental to meeting both organizational and national objectives. The success of projects in the manufacturing sector depends on various factors, including the integration of technological innovations, a robust sustainability culture, and strong top management support. These factors not only contribute to improving the efficiency and effectiveness of project management but also foster an environment that supports long-term organizational growth (Alofi & Younes, 2019; Babu et al., 2024).

Technological innovation has become a primary driver of competitive advantage in the manufacturing industry (Almosabbeh & Almoree, 2018). The fast change of technological advancement, including automation, artificial intelligence, and digitalization, offers organizations the opportunity to streamline their operations, improve product quality, reduce costs, and enhance customer satisfaction (Shahzad et al., 2022). In manufacturing, adopting cutting-edge technologies can help organizations optimize production processes, ensure the timely delivery of projects, and maintain a competitive edge in an increasingly globalized market (Aboal & Garda, 2016). However, despite the benefits, many firms in Saudi Arabia are still in the early stages of technology adoption, and integrating new technologies into existing operations presents several challenges. This study explores how technological innovation influences PMP and its role in the overall success of manufacturing projects.

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Sustainability culture is another critical aspect influencing PMP (Zheng et al., 2021). There has been more focus on sustainability in the business world, with organizations striving to integrate social, environmental and economic considerations into their operations (Awan et al., 2023; Navarro & Naranjo, 2025). For the manufacturing sector in Saudi Arabia, a strong sustainability culture is particularly significant due to the growing demand for sustainable practices and the government's emphasis on sustainability in its Vision 2030 agenda. A culture that prioritizes sustainability not only helps in meeting regulatory standards but also boosts organizational reputation, attracts investors, and enhances overall project outcomes (Maldonado-Guzmán & Pinzón-Castro, 2023). When sustainability is embedded in the culture of a manufacturing company, it influences all levels of operations, from the design phase to execution, ensuring that projects are executed in an environmentally responsible and socially beneficial manner (Emon & Khan, 2023). This study aims to examine how sustainability culture impacts PMP and whether it leads to better project outcomes in the manufacturing sector.

Top management support plays an instrumental role in ensuring the success of projects (Fareed et al., 2023). Strong leadership from top management is critical in guiding project teams, securing resources, making strategic decisions, and ensuring that projects are aligned with the organization's broader goals (Umasekar, 2024). In many manufacturing firms, the support of senior executives is crucial for overcoming challenges and ensuring that projects stay on track. Top management's involvement can provide the necessary guidance, motivation, and decision-making power that project teams need to succeed (Zu et al., 2022). Moreover, effective top management support helps in fostering a collaborative environment where employees at all levels are motivated to contribute to the project's success (Naji et al., 2022). This study explores the relationship between top management support and PMP, with an emphasis on how leadership can drive performance improvements in manufacturing projects.

This study investigates the relationships between technological innovation, sustainability culture, top management support, and PMP in Saudi Arabia's manufacturing sector. The research aims to fill a gap in the literature by focusing on how these factors interact and influence the overall success of projects within the context of Saudi Arabia's Vision 2030. The manufacturing sector, which is a key player in the country's economic diversification efforts, stands to benefit significantly from a deeper understanding of these dynamics. By examining these factors, this study offers valuable insights that can help organizations develop strategies to enhance project outcomes, improve operational efficiency, and ensure long-term sustainability. Additionally, the findings could inform policy decisions, corporate strategies, and the development of initiatives aimed at strengthening the manufacturing sector in Saudi Arabia.

Ultimately, this research is designed to provide practical recommendations for manufacturing firms, policymakers, and managers to foster an environment that embraces innovation, sustainability, and strong leadership, all of which are essential for driving successful project outcomes and contributing to the overarching goals of Saudi Arabia's Vision 2030.

2. Literature Review and Hypotheses Development

The success of projects in the manufacturing sector depends on a variety of factors. Technological innovation, sustainability culture, and top management support have emerged as critical drivers of PMP. This section reviews the existing literature on these key constructs and their interrelationships to develop hypotheses for this study.

2.1 *The role of technological innovation*

Technological innovation plays a critical role in shaping sustainability culture and fostering top management support within manufacturing organizations (Lee et al., 2022). While much has been written about the impact of technological innovation on PMP, its influence on sustainability culture and top management support has not been sufficiently explored. Technological innovations, particularly in green technologies, such as renewable energy systems, waste recycling processes, and eco-friendly production methods, are instrumental in reducing the environmental footprint of manufacturing firms while improving sustainability practices (Guo & Xu, 2021). Furthermore, innovations that promote sustainability, such as energy-efficient machinery or advanced digital tools for resource optimization (Stornelli et al., 2021), provide organizations with the necessary capabilities to achieve sustainability goals. By integrating these innovations, companies can enhance their sustainability culture, ensuring that environmentally conscious practices become ingrained in the organizational values (Aboal & Garda, 2016). In addition to its impact on sustainability culture, technological innovation also influences top management support. As organizations adopt innovative technologies that align with sustainability goals, top management is more likely to recognize the value of these technologies in driving long-term organizational success. Technology, thus, acts as an enabler of both sustainability and top management support, ensuring that sustainability efforts receive the attention and resources they deserve. Thus, we hypothesize:

H₁: *Technological innovation influences sustainability culture.*

H₂: *Technological innovation influences top management support.*

2.2 Sustainability Culture and Project Management Performance

Sustainability has become a central theme in organizational management, particularly in industries such as manufacturing, where environmental and social considerations are critical (Yan & Liu, 2023). A sustainability culture refers to an organization's commitment to integrating environmental, social, and economic factors into its strategic and operational decisions (Wijethilake et al., 2023). A strong sustainability culture fosters responsible behavior, compliance with regulations, and long-term thinking, which are essential for maintaining competitiveness and ensuring the long-term success of projects (Assoratgoon & Kantabutra, 2023). In the manufacturing sector, the adoption of sustainability practices is increasingly seen as a key driver of project success (Awan et al., 2023). Organizations with a strong sustainability culture tend to prioritize sustainable resource use, waste reduction, energy efficiency, and ethical labor practices. These initiatives not only help companies meet regulatory requirements but also improve their reputation, attract socially conscious investors, and foster innovation in project execution (Navarro & Naranjo, 2025). Furthermore, sustainability-focused projects often lead to operational efficiencies, cost savings, and risk mitigation, which contribute to better project outcomes. Sustainability culture influences the way projects are managed, with firms focusing on long-term value creation rather than short-term gains. A sustainability-oriented approach can enhance project outcomes by ensuring that projects are designed and executed with attention to environmental and social impacts, thereby improving overall PMP. Based on this, the following hypothesis is proposed.

H₃: *Sustainability culture influences PMP.*

H₄: *Sustainability culture mediates between technological innovation and PMP.*

2.3 Top Management Support and Project Management Performance

Top management support is an important factor in the success of any project. Leadership from the top echelons of the organization sets the tone for the entire project, providing the necessary resources, guidance, and strategic direction for project teams (Chatterjee et al., 2022). The involvement of top management in project planning and execution significantly increases the likelihood of project success (Elbanna, 2013). In manufacturing firms, top management's commitment to project success is particularly important, as it ensures alignment between corporate goals and project objectives. Strong leadership can drive the allocation of resources, facilitate decision-making, and provide the necessary support to overcome obstacles during the project lifecycle (Dong et al., 2009). Moreover, top management's role in fostering a project-oriented organizational culture and encouraging collaboration across departments can enhance communication, coordination, and knowledge sharing among project teams (Swink, 2000). Furthermore, top management support is essential for navigating project crises, securing additional resources when needed, and ensuring that the project is given the necessary priority within the organization (Hsu et al., 2019). As such, top management support has been found to positively influence project performance by providing the leadership, resources, and oversight required for successful project execution. We hypothesize:

H₅: *Top management support influences PMP.*

H₆: *Top management support mediates between technological innovation and PMP.*

Fig. 1 presents research model.

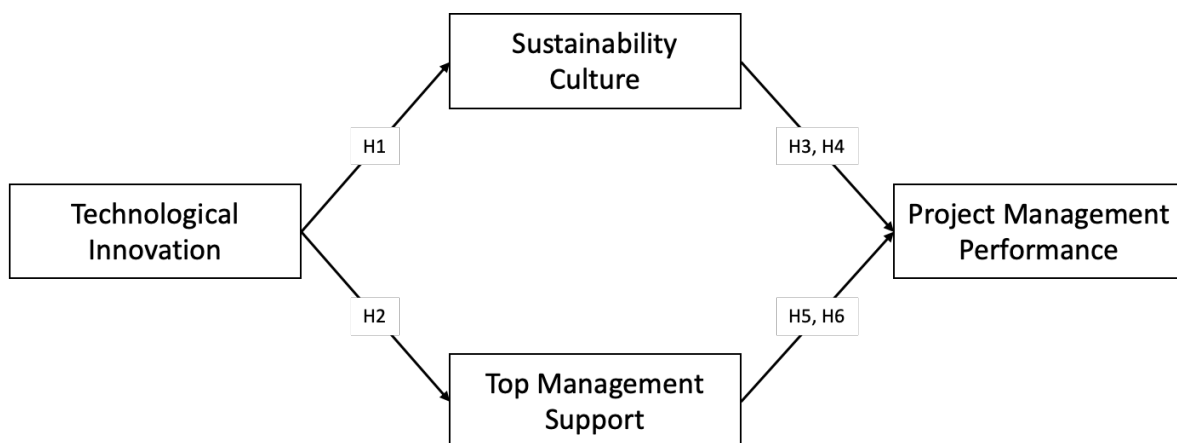


Fig. 1. Research Model

3. Methodology

This study employed a cross-sectional research design, adopting a quantitative approach to investigate the relationships between technological innovation, sustainability culture, top management support, and PMP. A total of 293 employees working in various manufacturing companies were surveyed using a convenience sampling technique, allowing for a representative sample while ensuring accessibility and practicality in data collection. The selection of the manufacturing sector

for this study is particularly relevant due to the sector's critical role in Saudi Arabia's economic diversification strategy under Vision 2030. Manufacturing is a key industry for driving industrialization, technological advancement, and sustainability, making it an ideal context for exploring the impact of technological innovation and management practices on performance. Furthermore, the sector is undergoing significant transformations, with increasing emphasis on innovation and sustainability, which aligns with the focus of the study. This makes the manufacturing sector a suitable and timely sample for examining these relationships.

The study used established scales for each variable, with all items measured on a 5-point Likert scale, ranging from "Strongly Disagree" to "Strongly Agree", except for PMP, which was measured on a scale from "Low" to "High". Specifically, items for Technological Innovation were adapted from Chege and Wang (2020), those for Sustainability Culture from Marshall et al. (2015), Top Management Support from Ong and Bahar (2019), and PMP from Demirkesen and Ozorhon (2017). Data analysis was conducted using Structural Equation Modeling (SEM) with SmartPLS software, which is suitable for assessing complex relationships and model fit in quantitative research. This methodological approach provides a robust framework for testing the hypothesized relationships and drawing meaningful insights from the collected data.

4. Results

Table 1 presents the demographic profile of the participants and reveals that the majority were male, accounting for 71%, while female participants represented 29% of the sample. In terms of age distribution, a substantial proportion of respondents (44%) were in the 25–34 years age group, followed closely by 41% in the 35–44 years category. Participants aged between 45 and 54 years comprised 9% of the sample, while those aged 55 years and above represented the smallest group at 6%. Regarding educational attainment, most participants held a bachelor's degree, constituting 69% of the sample, followed by those with a master's degree at 19%. A smaller segment (12%) had attained an associate degree. Concerning job positions, over half of the respondents (57%) were managers, while 19% held senior manager roles, 16% were coordinators, and 7% occupied executive or director-level positions. In terms of work experience, 40% of participants had between 2 to 5 years of professional experience, while 31% reported 6 to 10 years of experience. Participants with less than 2 years of experience accounted for 17%, whereas those with over 10 years of experience made up 12% of the total sample.

Table 1
Participants' Profile (n=293)

Category	Subcategory	Frequency	Percentage
Gender	"Male"	207	71%
	"Female"	86	29%
Age	"25–34"	129	44%
	"35–44"	121	41%
	"45–54"	26	9%
	"55+"	17	6%
Education Level	"Associate degree"	35	12%
	"Bachelor's degree"	201	69%
	"Master's degree"	57	19%
Job Position	"Coordinator"	48	16%
	"Manager"	167	57%
	"Senior manager"	57	19%
	"Executive/Director"	21	7%
Years of Experience	"Less than 2 years"	51	17%
	"2–5 years"	116	40%
	"6–10 years"	92	31%
	"10+ years"	34	12%

The measurement model assessment shows satisfactory results across all constructs, indicating acceptable internal consistency, convergent validity, and reliability. For PMP, the "Cronbach's alpha" value was 0.791, and the "composite reliability" reached 0.828, both exceeding the recommended threshold of 0.7, suggesting good internal consistency. The AVE value of 0.579 also surpasses the minimum acceptable level of 0.5, indicating adequate convergent validity. All item loadings were above 0.7, which are still acceptable. In the case of Sustainability Culture (SC), the "Cronbach's alpha" was 0.845, while the "composite reliability" was 0.755, showing strong internal consistency. The AVE of 0.654 indicates that more than 65% of the variance in the indicators is explained by the latent construct, confirming good convergent validity. All item loadings ranged from 0.705 to 0.885, reflecting strong indicator reliability. For Technological Innovation (TI), the construct demonstrated a "Cronbach's alpha" of 0.757 and a "composite reliability" of 0.863, both reflecting reliable measures. The AVE of 0.644 supports acceptable convergent validity. All nine items showed loadings ranging from 0.731 to 0.87, demonstrating adequate item reliability. Lastly, Top Management Support (TMS) recorded a "Cronbach's alpha" of 0.865 and a "composite reliability" of 0.726, confirming solid internal consistency. The AVE value stood at 0.586, indicating acceptable convergent validity. All items presented loadings above the 0.7 threshold, confirming strong individual indicator reliability.

Table 2
Measurement Model

Items with constructs	Loadings	Cronbach's alpha	Composite reliability	Average variance extracted (AVE)
Project Management Performance		0.791	0.828	0.579
PMP1: "Our company complete the project within schedule"	0.736			
PMP2: "Our company complete the project within budget"	0.785			
PMP3: "Our company achieve required quality"	0.788			
PMP4: "Our company achieve required safety"	0.866			
PMP5: "Our company satisfy the client"	0.748			
Sustainability Culture		0.845	0.755	0.654
SC1: "In my firm, I provided information to all employees to understand the importance of social sustainability"	0.789			
SC2: "I tried to promote social sustainability as a major goal across all departments"	0.811			
SC3: "Our firm had a clear policy statement urging social sustainability in every area of operations"	0.847			
SC4: "Social sustainability was a high priority activity in our firm"	0.885			
SC5: "Social sustainability was a central corporate value in our firm"	0.766			
SC6: "Our firm had a responsibility to be socially sustainable"	0.771			
SC7: "Our firm worked hard for an image of social sustainability"	0.705			
Technological Innovation		0.757	0.863	0.644
TI1: "Our company invested in research and development to produce quality products"	0.769			
TI2: "Our company used new technology in the production process"	0.795			
TI3: "Our company used new methods/procedures in production and service delivery"	0.87			
TI4: "Our company used new technology in marketing new products"	0.868			
TI5: "Our company market share has increased due to the use of the new technology in marketing"	0.822			
TI6: "Using technology, we pay only for what we use"	0.819			
TI7: "Customization using technology is easy"	0.788			
TI8: "When we use technology, we find it difficult to integrate the existing work with the web based services"	0.731			
TI9: "When we perform many tasks together, using technology, it takes up too much of my time"	0.752			
Top Management Support		0.865	0.726	0.586
TMS1: "There is direct upper management involvement in project management"	0.801			
TMS2: "Early involvement of upper management is evidence in project management"	0.759			
TMS3: "Upper management shared responsibilities with project team for ensuring the project's success"	0.776			
TMS4: "I agreed with upper management on the degree of my authority and responsibility for the project"	0.821			
TMS5: "Upper management supported in a project crisis"	0.716			
TMS6: "Upper management has granted the necessary authority and has supported decisions concerning the project"	0.731			
TMS7: "Upper management responsive to the requests for additional resources, when the need arises"	0.758			
TMS8: "More responsibilities should be given to every level of management or delegate the authority"	0.836			

The Fornell-Larcker criterion was applied to assess "discriminant validity" among the study constructs in Table 3. Specifically, PMP has a square root of AVE of 0.729, which is greater than its correlations with Sustainability Culture (0.657), Technological Innovation (0.512), and Top Management Support (0.591). Similarly, Sustainability Culture (SC) shows a square root of AVE of 0.868, exceeding its correlations with PMP (0.657), Technological Innovation (0.685), and Top Management Support (0.739). In addition, Technological Innovation (TI) has a square root of AVE of 0.862, which is higher than its correlations with PMP (0.512), SC (0.685), and Top Management Support (0.659). Top Management Support (TMS) also meets the criterion, with a square root of AVE of 0.721, which is greater than its correlations with PMP (0.591), SC (0.739), and TI (0.659). These results collectively confirm that each construct is empirically distinct from the others, thereby supporting the adequacy of the measurement model in terms of discriminant validity.

Table 3
Discriminant Validity (Fornell-Larcker criterion)

	PMP	Sustainability Culture	Technological Innovation	Top Management Support
PMP	0.729			
Sustainability Culture	0.657	0.868		
Technological Innovation	0.512	0.685	0.862	
Top Management Support	0.591	0.739	0.659	0.721

The structural model assessment reveals significant relationships among the study variables, as demonstrated by the path coefficients, t-statistics, and p-values in Table 4. The path from Technological Innovation to Sustainability Culture shows a positive and significant effect ($\beta = 0.585$, $t = 7.731$, $p = 0.00$), supporting H1, which indicates that higher levels of technological innovation contribute significantly to the development of a sustainability culture within organizations. Likewise, Technological Innovation positively influences Top Management Support ($\beta = 0.459$, $t = 9.713$, $p = 0.00$), supporting H2, reflecting that technological advancements encourage greater engagement and support from top management in project

management activities. Furthermore, Sustainability Culture has a significant positive impact on PMP ($\beta = 0.506, t = 8.766, p = 0.00$), confirming H3, which highlights the critical role of a strong sustainability culture in enhancing project outcomes. The mediation analysis also shows that Technological Innovation indirectly influences PMP through Sustainability Culture ($\beta = 0.397, t = 6.766, p = 0.00$), supporting H4, suggesting that the impact of innovation on project performance is partially realized by fostering a sustainability-driven environment. Similarly, Top Management Support directly improves PMP ($\beta = 0.479, t = 5.522, p = 0.00$), supporting H5, underlining the pivotal role of leadership support in ensuring project success. Additionally, the mediating effect of Top Management Support in the relationship between Technological Innovation and PMP is significant ($\beta = 0.459, t = 7.525, p = 0.00$), confirming H6, which indicates that technological innovation indirectly enhances project performance by strengthening top management’s involvement and backing. These findings collectively demonstrate that both sustainability culture and top management support are essential mechanisms through which technological innovation translates into improved PMP, highlighting the importance of leadership commitment and organizational culture in leveraging technological capabilities for successful project outcomes.

Table 4

Path Coefficients

Paths	Beta	Standard deviation	T statistics	P values	Results
Technological Innovation → Sustainability Culture	0.585	0.055	7.731	0.00	H1 supported
Technological Innovation → Top Management Support	0.459	0.017	9.713	0.00	H2 supported
Sustainability Culture → PMP	0.506	0.192	8.766	0.00	H3 supported
Technological Innovation → Sustainability Culture → PMP	0.397	0.178	6.766	0.00	H4 supported
Top Management Support → PMP	0.479	0.017	5.522	0.00	H5 supported
Technological Innovation → Top Management Support → PMP	0.459	0.174	7.525	0.00	H6 supported

The R-square (R^2) values indicate the proportion of variance explained in the dependent variables by their respective predictors, providing insight into the explanatory power of the model in Figure 2. The R^2 for PMP is 0.552, suggesting that approximately 55.2% of the variance in PMP is explained by sustainability culture, top management support, and technological innovation (through mediation paths). This reflects a moderate to strong explanatory power, indicating the model effectively captures key factors influencing project performance. Similarly, the R^2 for Sustainability Culture is 0.497, meaning that 49.7% of the variance in sustainability culture is explained by technological innovation, which implies that technological innovation plays a substantial role in fostering a culture of sustainability within organizations. Lastly, Top Management Support has an R^2 of 0.319, indicating that 31.9% of the variance in top management support is accounted for by technological innovation, which is considered a moderate level of explanation. This suggests that while technological innovation influences top management support, other factors not included in the model may also contribute to variations in leadership support.

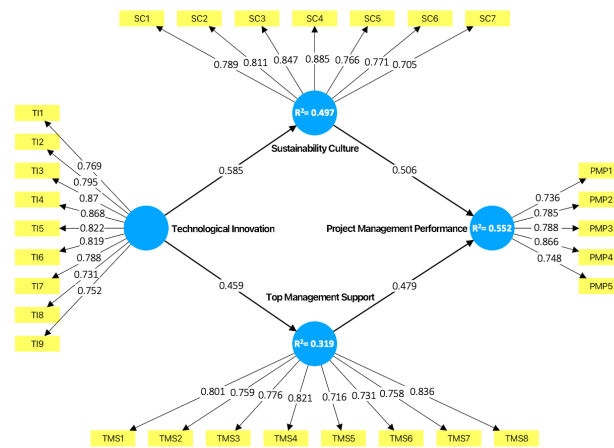


Fig. 2. Structural Model

5. Discussion

The study findings reveal that technological innovation has a strong and positive influence on sustainability culture ($\beta = 0.585$) and top management support ($\beta = 0.459$), confirming that organizations that embrace technological advancements are more likely to foster a culture that prioritizes sustainability and encourages leadership involvement. This suggests that technological innovation serves not only as an operational tool but also as a strategic driver that shapes organizational culture and leadership behavior (Lee et al., 2022). The high path coefficients demonstrate the substantial role of technological capabilities in enabling both cultural and managerial readiness for improved project outcomes.

Furthermore, sustainability culture significantly impacts PMP ($\beta = 0.506$), indicating that when organizations embed sustainability values and practices, they experience improvements in project delivery aspects such as quality, schedule, and client satisfaction. Similarly, top management support shows a positive effect on PMP ($\beta = 0.479$), highlighting the critical

role of leadership commitment, resource allocation, and decision-making support in driving successful project execution (Wijethilake et al., 2023). These direct effects reinforce the argument that both a supportive culture and active leadership are essential enablers of superior project performance (Awan et al., 2023).

The mediation results further clarify the mechanisms through which technological innovation affects PMP. The indirect effect through sustainability culture ($\beta = 0.397$) and through top management support ($\beta = 0.459$) confirm that innovation contributes to project outcomes not only directly but also indirectly by strengthening the internal environment and leadership support. These findings emphasize the strategic role of innovation in shaping organizational readiness and leadership engagement toward project success (Guo & Xu, 2021; Stornelli et al., 2021).

The study's findings have critical implications for the Saudi Arabian manufacturing sector, which is strategically positioned at the heart of the Kingdom's Vision 2030 for economic diversification and industrial advancement. The results demonstrate that technological innovation serves as a powerful enabler in strengthening sustainability culture and engaging top management support (Navarro & Naranjo, 2025). For manufacturers in Saudi Arabia, this underscores the necessity of integrating advanced technologies not only to optimize production efficiency but also to foster a corporate culture that prioritizes sustainability at all levels of operations. By doing so, organizations can effectively embed environmental and social sustainability values into their business models, contributing to the Kingdom's long-term development agenda.

Moreover, the strong influence of sustainability culture on PMP highlights that manufacturing firms must move beyond viewing sustainability as a compliance requirement. Instead, sustainability should become a central strategic objective that guides project planning, execution, and evaluation. Saudi manufacturers can benefit from integrating sustainability KPIs into their project management frameworks, ensuring that projects not only achieve financial and operational targets but also deliver positive environmental and social outcomes. This alignment can strengthen the global competitiveness of Saudi firms, enabling them to meet international sustainability standards and attract investment from global partners who prioritize responsible manufacturing practices.

The findings also emphasize the importance of leadership commitment in enhancing project success within the Saudi context, where decision-making is often centralized. It is crucial for top management in manufacturing firms to actively participate in project governance, provide timely support, and allocate adequate resources to project teams. This approach can foster a more agile and responsive project environment, improving the likelihood of achieving project goals while nurturing innovation and collaboration across departments (Junaedi & Waruwu, 2024). Encouraging participatory leadership styles will further enable firms to adapt to the fast-evolving manufacturing landscape shaped by digital transformation and sustainability demands.

Finally, the study reveals that technological innovation, sustainability culture, and top management support must be viewed as interconnected drivers of PMP. Manufacturing firms in Saudi Arabia should adopt an integrated approach that simultaneously leverages technology, reinforces sustainability-oriented culture, and ensures leadership support. This holistic strategy can help organizations achieve operational excellence, drive sustainable industrial growth, and align their practices with the broader national ambitions of economic resilience, diversification, and global leadership in advanced manufacturing.

6. Conclusion

This study highlights the critical role of technological innovation, sustainability culture, and top management support in enhancing PMP within Saudi Arabia's manufacturing sector. As the Kingdom advances its Vision 2030 goals, these elements are central to fostering a competitive, sustainable manufacturing industry. Technological innovation can drive efficiency while embedding sustainability values into organizational practices, aligning with Saudi Arabia's broader economic diversification and sustainability objectives. Moreover, cultivating a strong sustainability culture and ensuring active leadership involvement are essential to achieving project success and global competitiveness. Saudi manufacturers must embrace an integrated approach that combines advanced technologies, sustainability, and leadership support to navigate the evolving market dynamics. This strategy will not only enhance operational performance but also position the sector to meet international standards, contributing to the long-term success and economic transformation of the Kingdom under Vision 2030.

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