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Benefits of Adopting Innovation and Sustainability Practices in Project Management within the SME Context

Orlando Lima, Jr. [1], Gabriela Fernandes [2] and Anabela Tereso [3,*]

[1] ISISE, ARISE, Department of Civil Engineering, University of Minho, 4800-058 Guimarães, Portugal; orlandojunior.jr@hotmail.com
[2] CEMMPRE, Department of Mechanical Engineering, University of Coimbra, 3030-788 Coimbra, Portugal; gabriela.fernandes@dem.uc.pt
[3] ALGORITMI Research Centre/LASI, Department of Production and Systems, University of Minho, 4800-058 Guimarães, Portugal
* Correspondence: anabelat@dps.uminho.pt

Abstract: The economic activity of Small and Medium-Sized Enterprises (SMEs) has become increasingly project-oriented. Given SMEs' significant role in promoting social and economic well-being, Project Management (PM) has emerged as a crucial tool for fostering innovation and sustainability within these companies and society as a whole. However, there is a gap in the existing literature concerning identifying practices that ensure innovation and sustainability throughout PM within SMEs and the associated benefits of adopting these practices. To address this gap, a comprehensive Systematic Literature Review (SLR) was conducted, gathering articles from reputable databases such as Scopus and Web of Science. In addition, this study seeks to explore the practical, political, and theoretical implications of these findings. The review identified 166 innovation practices, 86 sustainability practices, and 61 benefits, which were categorized based on their primary subject areas. The results of this study contribute to both the academic and practical understanding of the interplay between PM, innovation, and sustainability in SMEs. By identifying these practices and associated benefits, this research provides valuable insights for practitioners and policymakers, enabling them to foster innovation and sustainability within SMEs. In conclusion, this research fills a critical gap in the literature by providing an in-depth analysis of innovation and sustainability practices in the context of PM in SMEs. Also, it identifies that the benefits of adopting these practices extend well beyond economic considerations. The practical, political, and theoretical implications of these findings underscore the importance of integrating PM, innovation, and sustainability for the overall well-being of SMEs and society.

Keywords: project management; innovation and sustainability practices; benefits; SMEs

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1. Introduction

Small and Medium-Sized Enterprises (SMEs) play a crucial role in contributing to economies' social and economic health by providing employment, innovation, and growth [1,2]. SMEs represent 99.8% of the non-financial economy in the European Union and 67% of the EU-27 employment capacity [3]. With the rise of project-driven economic activity, Project Management (PM) has evolved into a vital means for attaining sustainability and safeguarding both human and natural resources [4].

PM has the potential to become a crucial organizational system for SMEs, mainly when harmonized with innovation and interconnected with domains like innovation management and strategic management, enabling the accomplishment of corporate goals [5]. It is vital for SMEs to use PM to manage their operations, products, innovation, and growth, as it facilitates achieving their goals and implementing innovation and sustainability [6]. However, SMEs require less complex management than larger and more traditional organizations [2].

Integrating sustainability into PM requires a shift in scope when managing time, budget, and quality for addressing social, environmental, and economic impacts [7]. Environmental sustainability and its link with product innovation have gained attention due to resource constraints, increasing stakeholders, and the need to meet environmental, economic, and social requirements [8,9]. With the support of PM, SMEs are progressively integrating sustainable ideologies into their governance systems [10].

Despite resource constraints and reluctance to adopt tools and techniques used by large firms, SMEs have advantages such as simpler communication channels, less formality in decision making, and greater flexibility for faster innovation [11,12]. Organizations need to adopt innovative and sustainability-oriented practices to remain competitive and contribute to sustainable development [13].

Innovation and sustainability practices in SMEs through PM offer significant practical, political, and theoretical contributions. These include improving PM processes, stimulating innovation, and strengthening sustainability. Furthermore, these practices align with public sustainability policies and corporate responsibility, resulting in increased government support and enhanced stakeholders' perception. They also contribute to advancing knowledge in the areas of PM, innovation, and sustainability, highlighting the interdependence among these elements. They also promote sustainable growth in SMEs and advance knowledge in various related fields [14–17]. However, despite many studies on innovation and sustainability in the business context, studies describing and categorizing innovation and sustainability practices are still very scarce [18].

The objective of this research is to pinpoint PM practices that are suitable for adoption by SMEs to bolster innovation and sustainability within the organizational setting. Through a comprehensive Systematic Literature Review (SLR) and critical evaluation of the available knowledge, this study identified innovation and sustainability practices and the benefits perceived by those who have used them, filling a crucial gap in the literature. These benefits and practices are categorized according to their content, aiming to facilitate knowledge organization and utilization by project managers or other SME stakeholders. The sections on innovation practices, sustainable practices, and benefits present the primary information and critical analysis of the themes identified in the literature, as well as the main gaps identified. Then, the findings are discussed related to the practical, political, and theoretical implications. Finally, the Conclusions section synthesizes the main inferences and opportunities for future work.

2. Method

The SLR provides clear answers regarding what is and is not known about the object under study [19]. In this work, the SLR follows a four-step procedure, as shown in Figure 1, to find relevant research works, assess their contributions, and synthesize the gathered data [20].

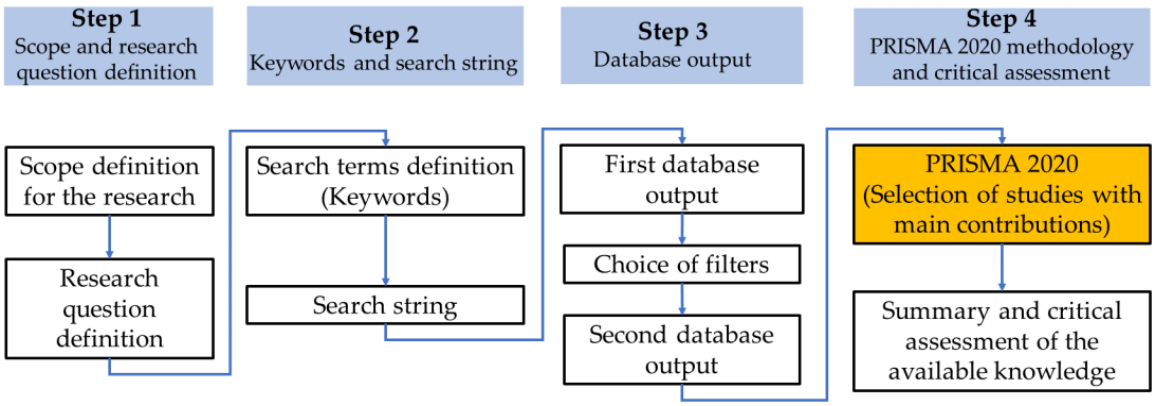

Figure 1. Flowchart of the systematic literature review.

Step 1: The scope of this research encompasses the areas of innovation, sustainability, PM, practices, benefits, and SMEs, focusing on the intersection of these themes. The research questions are as follows: How can innovation and sustainability be strengthened in the organizational environment through implementing PM in SMEs? What are the primary innovation and sustainability practices that SMEs can adopt? What are the benefits obtained by organizations that have implemented these practices?

Step 2: As the main objective of this SLR is to identify the innovation and sustainability practices that can be applied within the PM of SMEs and the benefits of adopting them, the string used in this study was: TITLE-ABS-KEY ("project management" AND ("innovat*" OR "sustainab*") AND ("practices" OR "benefit*")) AND ALL (("SME*" OR "Small and Medium* Enterprise*"))). The only terms considered in all fields of the documents (and not only in the title, abstract, and keywords) were those related to SMEs because it drastically reduced the records available in the databases. Thus, due to SMEs' relevance to this research's scope, their search space had to be extended in the search string.

Step 3: Only article-type documents in English in the Web of Science and Scopus databases were considered. The rigor, wide range of relevant scientific journals and academic publications, and advanced search features justify these databases' use. It furnishes an efficient search process. Including the keyword related to SMEs significantly reduced the number of papers retrieved. Consequently, the search string included this keyword in all paper fields. The output from the database is considered the initial basis and the first sample for the SLR, comprising 168 articles.

Step 4: The Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) 2020 guidelines were employed to enhance the quality of the SLR and ensure comprehensive coverage of relevant information. While PRISMA 2020 does not serve as a quality assessment instrument for gauging the systematic review's quality, it facilitated the identification, selection, evaluation, and synthesis of results related to the main contributions of this study. From the initial sample of 168 articles obtained from the two databases, Table 1 guided the selection process, resulting in the inclusion of 46 articles that offer valuable insights into innovation or sustainability practices applicable to PM, benefits associated with adopting these practices, and pertinent concepts essential for the comprehensive analysis.

Table 1. PRISMA 2020, article identification, selection, evaluation, and synthesis.

Phase	Description	Number
Identification	(+) Total articles identified in Scopus and Web of Science	168
	(−) Duplicate articles	13
	(−) Articles in disagreement with the filters	1
	Total	154
Screening	Screened articles included in the title/abstract review	154
	(−) Articles excluded for not answering the research questions	89
	Total	65
	Articles sought for retrieval	65
	(−) Articles not retrieved/not accessed	5
	Total	60
Included	Articles included in the full-text review	60
	(−) Articles without added value for this research	15
	(+) Articles identified from citation searching	1
	Total articles with added value included in the SLR	46

3. Innovation Practices

The competitiveness and sustainability of modern organizations depend on their ability to innovate successfully [21]. Innovation is related to applying a superior or new

product, process, practice, or organizational method within the organization or external relations [22]. To go beyond a simple invention, innovation needs to be successfully diffused in the market or implemented to positively impact the economy, with a considerable level of novelty for the firm, market, or the world [23].

The capability of adaptation and change is fundamental for an organization's survival and society's progress. Currently, the level of market uncertainty is high, contributing to the importance of adaptability [24]. By applying the innovation process, enterprises try to satisfy economic restrictions due to the competitive environment and stakeholder pressure [25]. Innovation-based SMEs proactively seek innovative solutions to social and environmental challenges to achieve competitive advantages [26]. Additionally, considering environmental and social questions can differentiate them and lead to market success [27].

Due to intense competition and the pressure of short-time-to-market constraints, innovation has significantly changed its approaches. Initially, the approach was considered "closed", with the focus and development centered on the company itself, but with the demands of the market, "open" innovation has taken place [21]. Open innovation combines different types of collaborations and links internal and external knowledge, i.e., customers and suppliers, cross-sector innovations, and new crowdsourcing techniques [11,28].

Globalization, fast increases in technology, and the reduction of product lifecycle influence SMEs to become more innovative [29]. However, they are not able to manage innovation systemically, resulting in flaws in innovation projects [30], and a lack of resources and knowledge is responsible for impeding their development [6]. The client's demand for product or process improvement is one of the reasons why the need for innovation arises. Still, due to resource limitations, SMEs may be less enthusiastic about implementing new approaches, making the innovation process relatively slow. Therefore, implementing innovation in SMEs is challenging, especially regarding partner identification, low maturity in PM, and the absence of an open innovation approach [11,12,22].

In contrast to the challenges faced by SMEs in the innovation scenario, they have some advantages that can contribute to faster innovation. For example, they are not limited by a large number of employees or financial capital, have less complex and formal lines of communication and decision making, and are more flexible [12,29]. Innovation can contribute to economic growth, and many companies are aware of this, but many companies still need to learn how to improve their performance through innovation. This explains the gap in the context of innovation practices, as in SMEs PM is used mainly to manage activities but without having well-established practices to manage innovation [31]. The findings of this work help fill this gap of relevant innovation practices throughout PM and contribute to an approach with high operational flexibility and boundary management, rather than a purely traditional PM focused on scope, time, and cost [32].

If PM is aligned with innovation management, it has a high potential to become an important organizational system. Moreover, it can be applied to achieve corporate objectives when associated with strategic management [5]. Promoting innovation in SMEs through PM can be accomplished by employing innovation management practices. These practices can be described as structured technical or administrative support systems that facilitate the implementation of the innovation process. They involve systematically applying experience gained from management and innovation research, ultimately enhancing organizational innovation performance [31].

Table 2 summarizes 166 innovation practices identified through the SLR. These practices are divided according to Pertuz and Pérez's study into 13 categories [33]: (1) Benchmarking; (2) Marketing; (3) Idea generation; (4) Innovation strategies; (5) Knowledge management; (6) Characteristics of the organization and resources for the development of innovation; (7) Human talent management; (8) Collaboration; (9) PM; (10) Improvements in products and processes; (11) Technologies; (12) Intellectual property; and (13) Innovation impact.

Table 2. Innovation practices by category.

Cat.	ID	Description	References	ID	Description	References
1	IP1	Pricing based on competition	[33]	IP4	Using benchmarking to achieve improved performance	[34]
	IP2	Assessing market competitiveness and evaluating competitor strength	[33]	IP5	Using scenarios and benchmarking for external business intelligence	[33]
	IP3	Executing technological benchmarking and technology intelligence	[33]	IP6	Leveraging internal and external data sources for business intelligence	[33]
2	IP7	Expanding into foreign markets	[33]	IP13	Engaging customers in the process of launching and disseminating innovations	[33]
	IP8	Targeting new domestic market segments	[33]			
	IP9	Implementing precise and methodical marketing prospecting	[33]	IP14	Suggesting problems and challenges identified by users	[35]
	IP10	Launching and promoting innovative marketing efforts	[33]	IP15	Conducting market research or feasibility studies	[33]
	IP11	Engaging in lobbying efforts to introduce and disseminate innovations	[33]	IP16	Emphasizing competitive advantages and innovations that customers are willing to pay for	[33]
	IP12	Developing a marketing innovation strategy	[33]	IP17	Enhancing market share	[34]
3	IP18	Implementing boundary management strategies to handle user volatility and ensure customer retention	[32]	IP26	Generating ideas aligned with the company's vision	[33]
				IP27	Selecting ideas based on the criteria of shareholders	[33]
	IP19	Promoting idea generation as part of innovation process management	[33]	IP28	Implementing processes to assess idea generation	[33]
	IP20	Providing space for idea sharing	[35]	IP29	Gathering ideas from external sources or agents	[33]
	IP21	Using brainstorming	[33,36]	IP30	Implementing tools and techniques to envision potential future threats and construct scenarios	[33]
	IP22	Conducting focus groups	[33]			
	IP23	Idea generation and exploration	[33]	IP31	Conducting analysis of lead users	[33]
	IP24	Utilizing an idea database for idea management	[33]	IP32	Ranking users	[35]
	IP25	Ideation based on market viability and the technological situation of the company	[33]	IP33	Analyzing consumption tendencies through ethnographic research	[33]
4	IP34	Emphasizing strategy innovation to drive process success	[33]	IP37	Establishing innovation targets	[33]
	IP35	Having a declared, articulated, and prioritized innovation strategy	[33]	IP38	Defining a process of innovation management in the company to guarantee the effective development of innovation	[33]
	IP36	Ensuring alignment and integration of the corporate strategy with the innovation portfolio	[33]			

Table 2. *Cont.*

Cat.	ID	Description	References	ID	Description	References
5	IP39	Capturing organizational knowledge and cultivating staff to provide system thinking and specialized knowledge	[33]	IP44	Conducting R&D activities, including tasks focused on fundamental knowledge acquisition and creation	[33]
	IP40	Gaining knowledge from internal sources	[22,33]	IP45	Managing an appropriate collective learning environment	[33]
	IP41	Gaining knowledge from external sources	[22,33]	IP46	Leveraging existing knowledge and striving to enhance it for solving specific problems	[33]
	IP42	Engaging in knowledge conversion activities	[37]	IP47	Diffusing and sharing information, ideas, and knowledge	[34,35,37]
	IP43	Implementing apprenticeship programs	[34]			
6	IP48	Disciplinary repertoires: Learning, meaning, identity, engagement	[37]	IP60	Establishing consortia to address problems and develop innovative products	[33]
	IP49	Encouraging employees to attend training sessions	[34,38]	IP61	Investing in technology	[33]
	IP50	Using multi-skilled teams	[34]	IP62	Systematic resources for innovation	[33]
	IP51	Building and using knowledge stock	[37]	IP63	Separating the product improvement budget from the R&D budget	[33]
	IP52	Transferring project learnings into continuous business processes	[34]	IP64	Financing innovation projects using internal resources	[33]
	IP53	Exchanging information, ideas, and knowledge	[35]	IP65	Securing external financing for innovation projects	[33]
	IP54	Implementing change effectively to take calculated risks	[33]	IP66	Making portfolio decisions based on financial estimates	[33]
	IP55	Adopting a participatory management model	[33]	IP67	Negotiation maturity and focalization	[33]
	IP56	Implementing a biological management model	[33]	IP68	Innovation of daily work and turning it into a company-wide task	[33]
	IP57	Using systems thinking methods	[32]	IP69	Allocating and managing competencies for the success of the innovation process	[33]
	IP58	Decentralizing decision making	[33]			
	IP59	Use-oriented and result-oriented business models	[33]	IP70	Investing in R&D	[22,34]
7	IP71	Using cross-functional innovation groups	[33]	IP78	Establishing open communication channels	[33]
	IP72	Recruitment of personnel focused on innovation (skilled employees)	[33]	IP79	Offering job security to employees and stability	[33]

Table 2. *Cont.*

Cat.	ID	Description	References	ID	Description	References
7	IP73	Emphasizing working efficiency and competition of employees with their peers for higher efficiency	[33]	IP80	Offering top management support to participants in the innovation process and fostering a managerial approach that treats staff as members of a cohesive family	[33]
	IP74	Setting clear goals and urging employees to concentrate on achieving them	[33]			
	IP75	Leaders serve as role models for innovative behavior	[33]	IP81	Providing new skills for the company within and outside itself	[33]
	IP76	Fostering employee loyalty and emphasizing teamwork	[33]	IP82	Keeping a PM file to improve employees' qualifications	[38]
	IP77	Promoting innovation-oriented organizational climate, forms of innovation activities, decision making, and human resource management practices	[33]	IP83	Identifying and fulfilling specific customer requirements	[2,35]
8	IP84	Developing strategic alliances	[33]	IP91	Developing open innovation processes	[33]
	IP85	Client-oriented approach (early engagement, feedback, listening, talking)	[34,36]	IP92	Open-source innovation	[35]
	IP86	Projects with external equipment	[33]	IP93	Open-source projects	[35]
	IP87	Establishing partnerships with universities for collaboration	[33]			
	IP88	Engaging in collaboration with suppliers to acquire technical knowledge and PM expertise	[33]	IP94	Consumer and developer community collaboration	[35]
	IP89	Activities associated with network management overseen by top management	[33]	IP95	Creating a team by selecting individuals from a community of users	[35]
	IP90	Exploring and mobilizing resources through R&D efforts and joint ventures	[33]	IP96	Establishing a professional rapport with community members	[35]
9	IP97	Formal and systematic PM by following up on innovative projects	[33]	IP111	Organizing projects in a sequence using the innovation funnel approach	[33]
	IP98	Appropriate and detailed planning	[36]	IP112	Documenting the lessons learned	[33]
	IP99	Strengthening the role of PM	[33]	IP113	Utilizing documentation tools for capturing lessons learned and facilitating knowledge transfer	[33]
	IP100	Key people for the innovation projects	[33]	IP114	Stakeholder management	[39]
	IP101	Appointing internal teams to execute and develop innovation projects	[33]	IP115	Identifying stakeholders and planning stakeholder engagement	[39]
	IP102	External groups contributing to innovation projects	[33]	IP116	Coordinating stakeholder engagement	[39]

Table 2. *Cont.*

Cat.	ID	Description	References	ID	Description	References
9	IP103	Implementing milestone-based project evaluations	[2,33]	IP117	Monitoring stakeholder engagement	[39]
	IP104	Using roadmap	[2]	IP118	Using minimum critical specifications to measure outcomes	[32]
	IP105	Incorporating stage-gate development processes in projects	[33]	IP119	Handling operational change and boundary management with flexibility	[32,36]
	IP106	Using activity lists or work breakdown	[2]	IP120	Applying agile-type methodologies	[2]
	IP107	Multi-criteria analysis	[33]	IP121	Developing team building	[2]
	IP108	Using PM tools for the development and monitoring of projects	[33]	IP122	Short interactions	[36]
	IP109	Project portfolio management	[33]	IP123	Implementing kick-off meetings	[2]
	IP110	Conducting regular decision meetings for project follow-up (weekly or biweekly)	[33]	IP124	Supporting lectures, courses, and articles	[38]
10	IP125	Terminating underperforming projects	[33]	IP134	Improving post-purchase customer usability	[33]
	IP126	Analyzing and mapping processes to minimize non-value activities	[33]	IP135	Increasing the quality of products and the production process	[33,36]
	IP127	Reducing response time for ordering existing services	[33]	IP136	Revamping product packaging and expanding the range of products and services	[33]
	IP128	Minimizing the cost of service delivery	[33]	IP137	Delivering updates via newsletters	[35]
	IP129	Customizing products	[36]	IP138	Developing and promoting new products, services or new lines	[33]
	IP130	Delivering products/services which reduce clients' costs	[34]			
	IP131	Restructuring jobs to minimize hand-offs	[33]	IP139	Implementing rapid changes to improve existing services	[33]
	IP132	Improving products and services	[33]	IP140	Adopting minimal viable product	[36]
	IP133	Short time for complaint adjustments	[33]	IP141	Establishing continuous improvement teams	[33]
11	IP142	Measuring compliance with processes, procedures, and service development	[33]	IP151	Using technologies to assist resource coordination and allocation	[40,41]
	IP143	Conducting process simulations	[42]	IP152	Managing the portfolio of technologies	[33]
	IP144	Establishing and integrating improvement processes into the institution's operations	[33]	IP153	Using internal communications via any computer network, for example, e-mail	[33]
	IP145	Enhancing the process documentation	[33]			
	IP146	Setting standards for the performance of services	[33]	IP154	Using distributed databases online for various functions	[33]

Table 2. *Cont.*

Cat.	ID	Description	References	ID	Description	References
11	IP147	Clear and precise specifying	[36]	IP155	Modernizing IT systems	[33]
	IP148	Improving safety	[22]	IP156	Using software tools for mapping processes	[33]
	IP149	Incorporating new technology for both new product development and in the process	[33]	IP157	Supporting software and early planning aiming at quality	[38]
	IP150	Constructing technology roadmaps of products to execute technology intelligence and monitor technological tendencies	[33]	IP158	Incorporating IT into projects	[43]
12	IP159	Testing (process, code review, automation)	[36]	IP161	Defining a formal process to evaluate the results of innovation	[33]
	IP160	Aligning the business strategy and technology	[33]	IP162	Managing the intellectual property derived from the company's innovation activities	[33]
13	IP163	Measuring environmental impact	[33]	IP165	Improving our social and community impact	[33]
	IP164	Acquiring new technologies related to the sustainability strategy	[33]	IP166	Developing environment-friendly products	[33]

The most cited innovation practices include "Diffusing and sharing information, ideas and knowledge", and other ones are mentioned more than once, for example: "Selecting ideas based on the criteria of shareholders", "Acquiring knowledge internally", "Acquiring knowledge externally", "Investing in R&D", "Using milestone-based project reviews", and "Using technologies to assist resource coordination and allocation". A noteworthy observation is that innovation and sustainability practices exhibit a significant intersection of knowledge, particularly concerning generating and transferring knowledge.

4. Sustainability Practices

The widely used concept of sustainability is the "triple bottom line", which seeks equilibrium between economic, social, and environmental aspects [44]. Meanwhile, the social and cultural complexity we live in, with varying situations, contexts, and objectives, makes it necessary for sustainability to work in multiple fields, and it is supposed to be a reason for a lack of consensus on the concepts and dimensions of sustainability [45].

In addition to the triple bottom line, Pappas [46] proposed that sustainability includes five dimensions: Economic, environmental, individual, technological, and sociocultural. Colombo et al. [47] extended this to eight dimensions by adding epistemological, relational, and territorial dimensions. Subsequently, the concept of sustainable development emerged, defined as a development that meets current needs without compromising the ability of future generations to meet their own needs [48].

Sustainability is increasingly becoming a powerful concept within the industrial and business worlds [49]. Among the reasons enterprises have been concerned about sustainability are resource restrictions, the increased number of stakeholders, and environmental, economic, and social requirements [9]. For these reasons, SMEs also include sustainability in their ideologies and governance, and PM supports this concern [10].

Due to its high relevance, consumption of natural resources, and waste generation, the construction industry has received much attention concerning sustainability [50]. On the other hand, although the construction industry is responsible for shaping the built environment that underpins all social and economic activity, the innovation performance of

construction companies is very patchy and has also received little attention in innovation research, if compared to other sectors such as manufacturing [34,51]. Bridging this gap and integrating these practices into construction, PM can lead to more sustainable and efficient outcomes in the built environment.

Innovation and sustainability contribute significantly to economic development, and many companies recognize their value but still need to learn how to improve their performance in this regard. Therefore, PM, as a valuable tool for organizations [52], along with adopting these innovation and sustainability practices, is a vehicle for SMEs to internalize them into their governance and achieve the benefits they provide in various aspects.

In PM, sustainability involves overseeing all project phases through strategic planning, continuous monitoring, and control throughout the project's lifecycle. This is carried out to meet stakeholders' requirements, prioritize transparency and ethical practices, and ensure the incorporation of economic, social, and environmental aspects [53].

One way to implement sustainability in SMEs through PM is through sustainable practices, by incorporating sustainable elements into the overall strategy and day-to-day operations, primarily focusing on ensuring humanity's long-term well-being [54]. SMEs can actively contribute to social responsibility initiatives if linked to innovative ideas, valuable skills, and available resources [55].

From the SLR, the following sustainability practices in Table 3 were identified and classified according to the three spheres of the "triple bottom line", based on which one they are most related to. A total of 86 distinct sustainability practices were identified, with 40 of them emphasizing (1) environmental performance, 24 focusing on (2) social performance, and 22 directed towards (3) economic performance.

Table 3. Sustainability practices by category.

Cat.	ID	Description	References	ID	Description	References
1	SP1	Collaboratively working with suppliers to mitigate the environmental impact	[56]	SP21	Prioritizing materials with third-party certifications	[56]
	SP2	Engaging in partnerships with customers to attain environmental goals	[56–58]	SP22	Minimizing the use of water or natural resources	[56,59,60]
	SP3	Encouraging suppliers to improve the environmental performance of their processes	[56]	SP23	Formalizing and monitoring green practices and environmental criteria within projects	[60,61]
	SP4	Decreasing the likelihood or impact of an environmental accident	[56]	SP24	Creating metrics such as checklists and matrices to assess environmental parameters	[58,60,62]
	SP5	Reducing waste production/disposal	[10,56,59,60, 63,64]	SP25	Analyzing environmental impact	[57,60]
	SP6	Reducing hazardous materials	[59]	SP26	Environmentally preferable packaging	[56]
	SP7	Recycling of toxic materials	[64]	SP27	Providing suppliers with design specifications that align with environmental requirements	[56]
	SP8	Reusing and recycling waste materials	[27,59,63]	SP28	Lifecycle analysis	[27,56,61]
	SP9	Investing in environmental management	[64]	SP29	Evaluating and choosing suppliers based on environmental issues	[56,63]

Table 3. *Cont.*

Cat.	ID	Description	References	ID	Description	References
1	SP10	Collecting data about harmful emissions	[10,56]	SP30	Adhering to environmental protection agency regulations	[59]
	SP11	Tracking carbon/carbon footprint calculation	[56]	SP31	Minimizing contamination of the surrounding environment	[65]
	SP12	Establishing pollution and carbon emission discharge requirements	[58]	SP32	Obtaining ISO 14001 [66] certification	[27,56,58]
	SP13	Minimizing energy consumption/energy efficiency	[56,63,67]	SP33	Establishing energy consumption requirements	[58]
	SP14	Using renewable energy/resources	[56,58,59,65, 67,68]	SP34	Implementing waste management	[27,56,57,60, 63,65,68]
	SP15	Auditing environment	[56,59,68]	SP35	Auditing energy usage	[58]
	SP16	Minimizing water and noise pollution	[57]	SP36	Conducting an analysis of material flows	[58]
	SP17	Minimizing greenhouse gas emissions	[65]	SP37	Incorporating impact assessment into the process	[69]
	SP18	Minimizing overall emission levels	[56,67]	SP38	Creating plans to achieve environmental sustainability	[14]
	SP19	Eco-designing	[27,56,60–62]	SP39	Inserting a specialist into the team to translate aspects of sustainability	[62,69]
	SP20	Prioritizing the use of sustainable and responsible materials and products	[56,60,63]	SP40	Planning of land use	[56,60,65]
2	SP41	Implementing health and safety measures	[27,57,68]	SP53	Ensuring supplier compliance with child labor laws	[56]
	SP42	Protecting the claims and rights of the people in the community	[59,65,68]	SP54	Requesting suppliers to provide a "living wage" to their employees	[56]
	SP43	Minimizing the impact on the neighboring community	[65]	SP55	Engaging a third party to oversee and assess working conditions at supplier facilities	[56]
	SP44	Conducting evaluations of the social impact	[14]	SP56	Involving and collaborating with stakeholders in processes and project activities	[56,57,62,70, 71]
	SP45	Forming cross-functional teams with diverse expertise and backgrounds	[57,62]	SP57	Ensuring commitment from all parties involved in the project	[60]
	SP46	Enhancing the working environment	[56]	SP58	Generating and transferring knowledge/awareness of sustainable concepts (staff development)	[27,38,57,60, 69,72]
	SP47	Encouraging environmentally responsible behavior in employees	[63]	SP59	Forging relationships between enterprises and their external suppliers	[58]
	SP48	Enhancing employee commuting	[56]	SP60	Managing stakeholders	[27]
	SP49	Advocating for the hiring of the local workforce	[65]	SP61	Holding daily stand-up meetings	[71]

Table 3. *Cont.*

Cat.	ID	Description	References	ID	Description	References
2	SP50	Multi-criteria decision making	[73]	SP62	Determining specific responsibilities for handling impacts, opportunities, and risks	[14]
	SP51	Procuring goods and services from suppliers owned by minorities or women	[56]	SP63	Developing social management plans	[14]
	SP52	Improving living conditions and combating labor exploitation	[65]	SP64	Complying with a customer's supplier or industry-wide code of conduct	[27,56]
3	SP65	Installing and utilizing self-generated sources of energy	[10]	SP76	Undertaking organizational-level renovations or improvements	[74]
	SP66	Engaging in by-product and waste exchange initiatives	[58]	SP77	Optimizing the reuse of resources	[65]
	SP67	Training resource-efficient methods	[60]	SP78	Decision-making guides	[57,62]
	SP68	Sustainable scheduling	[75]	SP79	Iterative and adaptive planning	[71]
	SP69	Coordinating supply chain actions	[27,60]	SP80	Minimizing resource consumption	[65]
	SP70	Improving transportation efficiency	[27]	SP81	Project risk management	[57,76]
	SP71	Implementing cleaner production	[27,58]	SP82	Aligning sustainability strategy with project objectives	[61]
	SP72	Linking PM to agile principles	[70]	SP83	Using long-lifecycle materials	[65]
	SP73	Sustainability in PM processes	[69]	SP84	Defining project goals and prioritizing stakeholders' preferences	[57]
	SP74	Strategic planning	[57,61,62]	SP85	Assigning and collocating the project team	[71]
	SP75	Ensuring alignment of project objectives with the requirements of stakeholders	[57]	SP86	Formulating policies to promote sustainability	[27,60,69]

The concept of sustainability has evolved beyond its initial focus on nature and now includes individual, technological, epistemological, relational, and territorial factors [47]. Despite this broadened perspective, the environmental dimension remains prominent and receives the most attention in sustainability practices. However, there are still gaps in understanding the cost–benefit assessment of environmentally friendly actions. Some argue that such investments have a negative effect due to high associated costs. In contrast, others see them as positive due to cost savings from resource optimization and emission reduction [77].

The construction industry has received particular attention regarding sustainability due to its high consumption of natural resources and waste production. Sustainable practices in this industry are well-established while other industries and social enterprises have yet to fully implement sustainable PM practices. Environmental sustainability practices primarily focus on reducing non-renewable resource use, promoting renewable materials and energy sources, controlling waste production, and preventing environmental destruction. Ecodesign, which aims to design products that minimize environmental impact through-

out their lifecycle, is an example of sustainability-oriented innovation that is increasingly common in companies.

Sustainability is increasingly recognized as a crucial factor in both industrial and business scenarios [47], and there is evidence that the success of projects is linked to sustainability [78]. While sustainability concerns have existed for a long time, social responsibility within an organizational context was only officially introduced by ISO 26000 Social Responsibility—Awareness Training in 2010 [79].

5. Benefits

The success of projects is not measured just based on the triple constraint but also on changing towards the achievement of the organizational benefits and objectives [80,81]. The Project Management Institute [82] also refers, in the PMBOK® Guide, to benefits as a way to quantify a project's success. A benefit is understood to be a measurable improvement that derives from the outcomes obtained and is perceived as positive through the eyes of a stakeholder [81,83].

Several companies in different industrial sectors have started to agree with the idea that they can benefit from PM practices [84] while still respecting costs, time, and performance. Therefore, the benefits obtained by those implementing innovation and sustainability practices in PM are investigated. Table 4 summarizes these benefits identified through the SLR and categorizes them.

Table 4. Benefits by category.

Cat.	ID	Description	References	ID	Description	References
1	B1	Better success rate for new products/services if compared to competitors	[38]	B7	Increase external client's trust	[85]
	B2	Better revenue from new products/services if compared to competitors	[38]	B8	Increase stakeholders' loyalty	[86]
	B3	Better profitability with new products/services if compared to competitors	[38]	B9	Lower total operating costs than competitors' total costs	[38]
	B4	Superior overall company if compared to main competitors	[38,68]	B10	Better competitive potential	[68]
	B5	Better company image	[86]	B11	Go beyond mere profit generation	[59]
	B6	Positive user perception	[40]			
2	B12	Higher quality of new products than those of competitors	[38]	B15	Improve efficiency	[36,41]
	B13	Superior functionality and features of products if compared to competitors	[38]	B16	Improve technology	[22]
	B14	Incorporate a large body of new technological knowledge into the products	[38]			
3	B17	Increase production or service provision capacity	[38]	B22	Faster detection of discrepancies	[71]
	B18	Increase production or service provision flexibility	[35,38,71]	B23	Improve communication both within the team and with the customer	[71]
	B19	Reduce costs of production or provision of services	[38]	B24	Procedure simplification	[41]

Table 4. *Cont.*

Cat.	ID	Description	References	ID	Description	References
3	B20	Improve production or service provision quality	[22,38]	B25	Reduction of time to market	[42]
	B21	Better decision-making process	[11,85]	B26	Access to other's facilities and equipment	[85]
4	B27	Help to identify valuable stakeholders and inputs	[11]	B32	Faster response to change	[71]
	B28	Consistency and completeness of supported project-planning steps	[11]	B33	Structured problem analysis allows identification of the actual issue	[11]
	B29	Network expansion	[85]	B34	Lower risk impact	[85]
	B30	Ideas for opening new areas for research	[85]	B35	More effective problem solving	[71]
	B31	Better project planning	[85]	B36	Potential applications	[11]
5	B37	Support of knowledge transfer between disciplinary silos	[11,85]	B41	Overcome thinking patterns and broaden solution space	[11]
	B38	Information integration	[35]	B42	Enhance intuitive and experience-driven approach	[11]
	B39	Publications and conference attendance	[85]	B43	Support to overcoming local search bias	[11]
	B40	Easier information retrieval	[41]			
6	B44	Greater probability of project success	[85]	B52	Cost reduction through waste reduction	[68]
	B45	Better budget control	[85]	B53	Return on investment/profitability	[59,68]
	B46	Better project performance	[85]	B54	Survival and success in the long run	[59,68]
	B47	Better evaluation of budget reserve	[85]	B55	Improve economic performance	[40,59,64]
	B48	Better lifecycle value for the investment	[68]	B56	Improve schedule performance	[40]
	B49	Improve profits from operational efficiency	[68]	B57	Improve performance management	[41]
	B50	Time saving	[22,42]	B58	Market improvement	[22]
	B51	Cost saving	[22,41–43]			
7	B59	Employment opportunities	[68,85]	B61	Improve employees' occupational health and safety	[22,59]
	B60	Development of personal skills and human capacity building	[68,85]			

In total, 61 benefits are gathered and then divided into seven categories, namely: (1) Competitive advantage, (2) Product/service, (3) Process, (4) Strategy, (5) Knowledge, (6) Organization, and (7) Employees. The most frequently cited benefits are: "Cost saving", "Increase production or service provision flexibility" and "Improve economic performance". Other ones are also identified in more than one article, such as "Improve production or service provision quality", "Support of knowledge transfer between disciplinary silos", "Time saving", and "Development of personal skills and human capacity building", among others.

The adoption of innovation and sustainability practices yields a multitude of significant benefits for businesses. These benefits enable organizations to gain a competitive ad-

vantage [68], improve the quality of their products and services [22,38], optimize processes, strengthen their strategy, and foster a healthier and more empowered work environment. One of the key benefits highlighted is cost savings, which can be achieved through waste reduction [68] and operational efficiency [38]. This translates into improved economic performance, with increased profitability. Additionally, cost reduction contributes to better budget management and financial control.

Flexibility in production or service provision is another relevant benefit. Companies that embrace innovation and sustainability practices can adapt quickly to market changes and demands, granting them a significant competitive edge. This flexibility is also associated with the capacity to increase production or service capability, enabling companies to meet a higher volume of demand.

Enhancing the quality of products and services is crucial for customer satisfaction and building a positive company image. By incorporating new technological knowledge and fostering innovation, companies can offer products with superior functionality and features compared to competitors [38]. This results in a positive perception among users, increasing their trust and loyalty to the brand. Furthermore, adopting innovation and sustainability practices contributes to better decision making through support for information integration, improved project planning, and structured problem analysis. This helps companies identify valuable stakeholders [11], gather relevant inputs, and enhance the effectiveness of their strategies and operations.

In the organizational context, these practices promote knowledge transfer across different areas, breaking disciplinary barriers and fostering a culture of collaboration and learning. Additionally, adopting innovation and sustainability practices also brings about social benefits, such as personal skill development, employee empowerment, and employment opportunities. Moreover, these practices contribute to improving employees' occupational health and safety, creating a healthier and more productive work environment. Thus, it is evident that the adoption of innovation and sustainability practices yields a range of benefits for businesses. By considering these benefits and conducting a thorough cost–benefit assessment, organizations can make informed and strategic decisions.

Despite the various tangible and intangible benefits achieved by the introduction of sustainability in SMEs' PM, for some authors, it is still unclear if the investments considered in environmentally friendly actions have a negative effect due to a high associated cost or positive outcomes from the cost savings and optimization in the company's performance, highlighting a knowledge gap regarding the cost–benefit assessment of this aspect. Lifecycle analysis would be a good way to analyze the impact of adopting these innovation and sustainability practices on companies' projects in terms of benefits.

6. Practical, Political, and Theoretical Implications

Innovation and sustainability practices in SMEs play a critical role in their development. These practices have significant potential to enhance the efficiency of management processes, foster innovation, and strengthen the sustainability of SME operations.

The main practical implications of adopting innovation and sustainability practices are increased competitive advantage, enhanced management processes, optimized operations, and improved overall results for both the organization and the surrounding environment [18,22,35,38,59,68,71]. Incorporating innovation and sustainability practices fosters creativity and stimulates the generation of new products, services, or processes that meet customer needs and stand out in the market [22]. The adoption of sustainable practices also contributes to raising awareness of sustainability in SMEs, such as minimizing waste emissions, efficient resource utilization, preference for renewable energies, and other actions that reduce the environmental impact of business activities [27,38,57,59,60,69,72]. In this way, SMEs can position themselves as responsible and conscious agents, aligned with the current demands of the planet and moving towards sustainable development.

Identifying and adopting innovation and sustainability practices in SMEs also have important political implications for the relationship between organizations and society [22,25].

These practices can act as catalysts for implementing public policies aimed at a more sustainable and innovative business environment [87,88]. By aligning with these policies, companies can gain greater government support and access to specific resources, such as additional incentives. This political support strengthens the business environment and creates new opportunities for SMEs to thrive [89,90]. Moreover, implementing sustainable practices demonstrates social responsibility. It can improve the company's image among stakeholders and society because innovation and sustainability policies are increasingly valued as they contribute to a more sustainable future.

The identification and analysis of innovation and sustainability practices in SMEs also provide theoretical contributions to the advancement of knowledge in the fields of PM, innovation, and sustainability [11,85]. By assessing these practices and benefits, we enrich the existing theoretical framework, fill information gaps in the literature, and identify valuable insights for future research. The knowledge acquired through this investigation significantly advances our understanding of the interplay between PM, innovation, and sustainability. It also highlights the value of integrating these knowledge areas for SMEs. This study highlights how these elements mutually influence each other. The adoption of innovative and sustainable practices facilitates effective PM while strengthening the competitiveness and longevity of SMEs. Furthermore, disseminating the results through publications and conferences [85] enables practitioners and policymakers to become aware of these practices and apply them in their projects.

7. Conclusions

This paper identifies the practices that can promote innovation and sustainability within SMEs' organizational environment through PM, as well as the benefits perceived by those who use these practices. For this, an SLR was adopted, and with its support, 166 innovation practices, 86 sustainability practices, and 61 benefits were identified and categorized according to the subject to which they are most related. Most innovation practices are related to PM and implementing changes or improvements in products and organizational processes, at 17% and 15%, respectively. The highest percentage of sustainability practices (47%) is related to the environmental dimension. This aligns with the fact that more emphasis is placed on addressing environmental aspects than economic and social sustainability dimensions. The benefits of adopting these practices are mostly related to "Organization" and "Competitive advantages", at 25% and 18%, respectively, but other categories also benefit from the use of innovation and sustainability practices, such as "Processes", "Strategy", and "Employees".

The practical, political, and theoretical implications of adopting innovation and sustainability practices stand out significantly, extending well beyond the institution itself and its partners. These implications reach into the realms of politics, knowledge creation and transfer, and society as a whole. By embracing these practices, organizations can optimize their operations and foster innovation and showcase a commitment to social responsibility, attract stakeholders, and positively influence policies. Moreover, they can become a catalyst for groundbreaking research that challenges conventional norms and contributes to knowledge advancement. These practices inspire a transformative generation that can impact politics, knowledge dissemination, and society, and foster a more inclusive and equitable world.

Although a structured search and analysis process was developed, literature reviews can never be exhaustive and, therefore, in this process, some articles or groups of articles may have been left out of the analysis. Besides this, cognitive bias cannot be fully eliminated in the literature analysis process related to qualitative analysis [91,92]. Moreover, as the bridge between the scientific fields of sustainable development and PM started only around 2010 and it is still being built, it characterizes a relatively new theme. This situation is further emphasized when the subject of SMEs is included even in the most significant and comprehensive databases. Therefore, future work is recommended.

Due to the range of practices discovered in this extensive SLR, it would be beneficial to determine, based on surveys and case studies, which specific innovation practices impact projects the most, which of these practices or groups of practices are most critical in influencing companies' growth in different business sectors and for SMEs in different contexts, which practices help achieve some benefits, and how they impact at project, program, and portfolio levels. Moreover, conducting additional and comparative analyses of project lifecycles with and without adopting innovation and sustainability practices would also offer valuable insights. This analysis would help clarify whether implementing such practices is justified from a cost–benefit perspective. By addressing companies' concerns about initial investments and efforts, this research opportunity can shed light on whether the benefits gained from adopting innovation and sustainability practices outweigh the associated costs.

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