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How public managers view Sustainable Development Goals: a Q-study

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ABSTRACT

In response to growing attention to the United Nations' Sustainable Development Goals (SDGs), research in public administration and public financial management has explored their integration into strategic planning and governance and probed the enabling conditions that facilitate implementation of the SDGs. Although the risk of the SDGs becoming mere rhetoric on the part of public managers and politicians has been acknowledged, public managers' actual perceptions regarding SDG implementation have not been researched. The present study addressed this gap by exploring Italian public managers' perspectives on the SDGs using Q-methodology. An analysis of 36 Q-sorts revealed three dominant attitudes: the pragmatic entity-oriented, the local system orchestration-focused, and the resource- and policy-focused perspectives. These findings provide new insights that can inform future strategies and policy actions to effectively advance the SDGs.

ARTICLE HISTORY

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Introduction

The Sustainable Development Goals (SDGs), launched by the United Nations (UN) in 2015, provide holistic guidance regarding fostering sustainable development along social, economic, and environmental dimensions. The SDG framework, including 17 goals and a wide set of targets and indicators, “provide(s) a common language for talking about intractable problems and the need for joint action and innovative solutions” (Ansell, Sørensen, and Torfing 2022:9). The commitment to sustainable development has been linked to a postmaterialistic value that emphasizes quality of life, environmental protection, inclusion, and individual self-expression (Bisogno et al. 2023; Fiorino 2010), rather than a materialistic culture that emphasizes economic well-being.

However, the United Nations (2024) reported that the pace of progress is inadequate to meet the SDG targets by 2030: only 17% of targets are currently on track, nearly half show minimal or moderate progress, and over one-third are stalled or regressing. Taken together, these trends suggest that incremental adjustments are unlikely to be sufficient and more profound and coordinated transformations are required to achieve these goals. This, in turn, shifts attention to the governance arrangements and actors involved in translating sustainability ambitions into practice, pointing to the need for a deeper understanding of the factors shaping implementation dynamics across countries and stakeholders. In this respect, SDG implementation requires collaboration between actors at multiple institutional levels (SDG 17), and previous studies have stressed the importance of commitment and actions at the local level, including the involvement of public

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organizations, citizens, nonprofit organizations, and firms (e.g., Bardal et al. 2021; Bisogno et al. 2023; Cohen 2011; Deslatte and Stokan 2020; Guarini, Mori, and Zuffada 2021; Walker and Hills, 2012). In this context, public managers occupy a particularly critical position, as they are directly involved in interpreting policy priorities, making resource allocation decision, mobilizing organizational resources, and coordinating actors in the pursuit of the SDGs (e.g. Deslatte and Stokan 2020; Zeemering 2021).

At the same time, existing studies point to persistent organizational challenges and barriers surrounding SDG implementation, which can shape and sometimes constrain managerial action, while practical management practices remain insufficient to support sustainable growth (Zeemering 2009, 2018). Accordingly, there is a need to better understand sustainability issues in the public organization context (e.g. Kaufmann and Lafarre 2021), particularly by examining how public managers interpret and make sense of SDG-related goals, tools, and constraints (e.g. Eriksson 2022, Zeemering 2009, 2018). Their viewpoints shape how sustainability agendas are framed, prioritized, and enacted in organizational and governance practices, rather than mechanically reproduced as predefined policy models. Without an explicit understanding of these viewpoints, critical insights into the heterogeneous logics, assumptions, and tensions through which SDG implementation takes shape in everyday organizational settings remain obscured, limiting the development of more theoretically grounded and empirically sensitive accounts of sustainability governance.

This study aims to fill the gap by focusing on the systematic identification and interpretation of public managers' viewpoints regarding SDG governance and implementation, rather than on explaining implementation outcomes or testing causal relationships. To this end, the present study employs the Q-methodology (Migchelbrink and Van de Walle 2022) to analyze public managers' perceptions of the importance of the SDGs and strategies, plans, and tools that promote sustainable development. By mapping distinct and coexisting managerial perspectives, the study offers a configurational understanding of how public managers frame SDG-related challenges and enabling conditions. The results revealed three main perspectives that can help actors, especially politicians and national and supranational organizations, identify tools and levers that could support SDG implementation in Public Sector Organizations (PSOs). In doing so, the study contributes to the literature on SDG governance by articulating distinct configurations of managerial sensemaking around sustainability challenges and enabling conditions, shedding light on the heterogeneous logics through which SDG implementation and governance are framed in practice.

The rest of this paper is organized as follows. Section 2 provides a literature review of previous studies focused on the SDGs. Section 3 describes the methodology adopted in this study. The results are presented in Section 4 and discussed in Section 5. Section 6 concludes the paper.

Literature review

Public organizations are increasingly called upon to foster and support sustainable development, as a part of their core mandate to implement public policy and enhance social welfare (Ball and Grubnic 2007). Within this context, the implementation of the Sustainable Development Goals (SDGs) has emerged as a particularly demanding undertaking, involving the translation of broad sustainability ambitions into concrete governance arrangements and managerial practices across different institutional levels. Accordingly, the implications associated with achieving the SDGs have garnered significant interest among public administration and public management scholars. While the initial debate largely focused on the scientific and societal challenges of sustainable development (e.g., Pradhan et al. 2017; Spaiser et al. 2017), subsequent research has increasingly emphasized the role of public organizations in advancing the SDGs at the local level, where sustainability ambitions confront organizational constraints, coordination demands, and contextual specificities. Within this body of work, scholars have mainly approached SDG implementation through two interrelated lenses: (i)

governance for sustainable development, focusing on the actors involved and their respective roles, and (ii) enabling conditions, addressing the organizational, managerial, and institutional factors that are considered necessary to advance progress toward the Goals (e.g., Abhayawansa et al., 2021; Ansell, Sørensen, and Torfing 2022; Bardal et al. 2021; Bisogno et al. 2023:2025; Bowen et al. 2017; Deslatte and Stokan 2020; Glass and Newig 2019; Guarini, Mori, and Zuffada 2021:2022).

Governance for sustainable development

Previous studies have found that the achievement of the SDGs is closely linked to appropriate governance structures and mechanisms, which are typically conceptualized as multidimensional patterns that include various actors, structures, processes, and institutions in political decision-making and implementation (e.g., Ansell, Sørensen, and Torfing 2022; Driessen et al. 2012; Glass and Newig 2019; Ioppolo et al. 2016; Lauwo et al. 2022; Meschede 2019; Treib et al. 2007). As Kapucu and Beaudet (2020) noted, sustainable development does not occur spontaneously; it requires deliberate efforts and collective decision-making by society to guide actions and policies. This process, known as governance for sustainable development, involves the collective sharing of visions as well as discussions and decisions about which actions to take (Ioppolo et al. 2016; Meadowcroft 2007). Within this perspective, public managers' capacity for multilevel coordination has been identified as a crucial element in supporting effective governance for sustainable development (Bisogno et al. 2025; Mejía-Dugand and Pizano-Castillo 2020). Leal Filho et al. (2016) observed that a limited understanding of sustainable development, poor policy integration across all government levels, a lack of cooperation between sectors, and inadequate stakeholder engagement can hinder effective governance. Recently, Sinervo and Laihonon (2024) claim that public managers have to recognize that navigating the tension between social and financial sustainability requires specific strategies, organizational structures and tools in public organizations.

Governance issues are closely interconnected with the involvement and roles of various actors in implementing the SDGs. It has been claimed that, for successful SDG implementation, the roles of different stakeholder categories should be clarified ex-ante (Lauwo et al. 2022). Although the 2030 Agenda is shaped by a range of stakeholders, the role of local governments in setting the political agenda, identifying legislative frameworks, and redefining public policy objectives through the lens of sustainable development is crucial to achieving sustainability (Ansell, Sørensen, and Torfing 2022; Ball et al. 2014; Porritt 2004; Reddy 2016; Zeemering 2018). Furthermore, widespread participation and long-term cooperation among diverse stakeholders, such as public administrations, citizens, private companies, and nonprofit organizations, are essential to building a shared understanding, vision, trust, and consensus regarding SDG implementation (e.g., Bisogno et al. 2025; Ioppolo et al. 2016; Meschede 2019). At the same time, the institutional diversity of stakeholders and their multiple interests can pose coordination and political challenges for individual public administrations (e.g., Guarini, Mori, and Zuffada 2022; Ostrom 2005).

Against this backdrop, previous studies have highlighted the role of public managers in SDG implementation and emphasized the need to improve public managers' consciousness about the relevance of sustainable development and management competencies (Zeemering 2009; Cohen 2011; Fiorino 2010; Deslatte and Stokan 2020; Zeemering 2021; Guarini, Mori, and Zuffada 2022; Bisogno et al. 2023; Sinervo and Laihonon 2024). In this respect, Zeemering (2009) demonstrated that local government officials hold substantially different understandings of what sustainability means and how it should be pursued, suggesting that managerial perceptions are not merely a reflection of organizational context but actively shape the strategies and priorities that public administrations pursue. More broadly, managerial interpretations of sustainability agendas, encompassing judgements about relevant goals, enabling conditions, constraints, and effective governance arrangements, condition the extent to which broad policy commitments are

translated into concrete organizational action (Eriksson 2022; Fiorino 2010; Sinervo and Laihonon 2024).

Enabling conditions

The literature indicates significant interest in exploring how to enable SDG implementation. According to Ningrum et al. (2024:2), enabling SDG implementation involves “giving the process (of local SDG actions) [the] strength and competency to commence, sustain, and elevate to achieve its stated objectives”. Sharing this perspective, prior studies have identified several enabling conditions, most notably strategic planning and priority setting, accountability, and adequate resources and capacities.

Strategic planning and priority setting

Achieving the SDGs requires a clear political vision and a commitment that integrates sustainability’s values into the political agenda. This implies that public organizations’ visions are the starting point for integrating the SDGs into the political agenda (Guarini, Mori, and Zuffada 2021). To effectively address social, environmental, and economic challenges, this vision should be incorporated into strategic documents, which, as the most formal expression of an organization’s strategic culture, clearly reflect its core values and interpretative frameworks (Breuer et al. 2022; Lauwo et al. 2022; Vandersmissen and George 2024). Embedding the SDG framework within strategic planning signals the extent of a public organization’s commitment to sustainable development and its willingness to address sustainability in a holistic manner (e.g., Guarini, Mori, and Zuffada 2021; Cohen et al. 2025). This, in turn, supports a comprehensive transformation of organizational and managerial processes (Laszlo and Zhexembayeva 2011).

Even though sustainable development is a global concept requiring collective pursuit, issues regarding prioritizing the SDGs and related interventions within the entity’s strategic framework may arise. Given the multisectoral and multiscale nature of the SDGs, the involvement of multiple actors and activities, and resource scarcity, public organizations must prioritize which of the 17 SDGs to pursue and rank them by importance (Berrone et al. 2023; Durand, Hawn, and Ioannou 2019). A clear path that includes budgetary considerations should be provided in the strategy documents, such as strategic plans and multiyear budget, so that sustainability considerations do not become a political manifesto without any concrete effects (McDonald et al. 2024). Additionally, the SDGs present long-term challenges that require the careful management of intertemporal tradeoffs. Prioritization efforts should consider relevant institutional and geographical contexts to ensure that actions are tailored to achieve impactful progress and foster innovation in services and processes (Berrone et al. 2023).

Accountability

The SDGs should be integrated and operationalized in a measurable, accountable, and assessable manner, with robust monitoring and evaluation systems in place to track progress toward the implementation of multiple goals. Bowen et al. (2017) identified accountability mechanisms as one of the main challenges of SDG implementation. These mechanisms allow societal actors to account for and take responsibility regarding economic, environmental, and social decision-making, investment, actions, and outcomes (e.g., Bowen et al. 2017; Breuer et al. 2022).

In this context, accountability is an ethical and moral imperative that is aligned with SDG 16, which involves building accountable and inclusive institutions at all levels, and it relies on providing transparent information about processes and outcomes as well as explaining and justifying the impacts of new solutions on relevant and affected actors (Ansell, Sørensen, and Torfing 2022; Breuer et al. 2022). To that end, rethinking accounting tools can support a

substantive approach to sustainability (Soares, Vitor, and Busanelli de Aquino 2025; Manes-Rossi et al. 2024). For instance, accrual accounting and cost-accounting systems connected to the SDGs can be used to prepare budgets and reports to promote and monitor progress toward the goals (Cohen, Manes-Rossi, and Brusca 2023).

In the same vein, specific, measurable indicators should be established to assess how strategies have been translated into actions (Argento, Brorström, and Grossi 2025). However, measurement issues have been highlighted for some SDG targets (e.g., Bowen et al. 2017; Hopper, 2019; Niemann and Hoppe 2018). Pitfalls in sustainability reporting frameworks and outcomes have also been reported (e.g., Cohen, Manes-Rossi, and Brusca 2023; Niemann and Hoppe 2018; Perego, Kennedy, and Whiteman 2016).

Other enabling conditions

Other enabling conditions for successful SDG implementation have been reported in the literature. Even when there is political commitment to the SDGs, adequate resource availability is crucial for effective implementation (e.g., Ansell, Sørensen, and Torfing 2022; Benito, Guillamón, and Ríos 2023; Bisogno et al. 2023; Ioppolo et al. 2016; Martens 2013; Mutiarani and Siswantoro 2020). Financial factors include securing adequate funding for SDG implementation activities; ensuring sufficient resources and capacity for planning and data collection and analysis; and supporting SDG-oriented communication and sustainable business practices (Ansell, Sørensen, and Torfing 2022; Bardal et al. 2021; Benito, Guillamón, and Ríos 2023).

The literature also emphasizes the importance of adequate knowledge about SDG-related issues as well as managerial, organizational, and technical resources, such as access to data to support planning, action, and monitoring efforts (Meschede 2019; Reddy 2016; Zeemering 2018). Other essential components include having a separate office dedicated to sustainability tasks and related accountability efforts (Saha and Paterson 2008), developing organizational capacity and institution building (Cohen 2011; Fiorino 2010; Reddy 2016), and integrating sustainability policies across all government levels (Leal Filho et al. 2016; Zeemering 2018).

The aforementioned enabling conditions do not exist in isolation; they are interrelated and should be addressed in a synergistic manner to implement the SDGs and ensure shared value for all stakeholders. According to Chen, Yin, and Mei (2018), holistic innovation is needed to design and implement successful sustainable development strategies that meet the needs created by the Goals' interdependencies.

However, constraints can significantly limit progress toward the achievement of the SDGs. Political constraints, for instance, including the pressure to deliver short-term results aligned with electoral cycles, may undermine the long-term orientation required for sustainability. In response, public managers can mitigate these limitations by negotiating and building coalitions across the local government system (Sinervo and Laihonon 2024). Fiscal constraints similarly restrict available revenue sources, compelling public managers to reallocate resources, experiment with alternative service delivery arrangements, and identify expenditure reductions in ways that preserve a strategic focus on the SDGs (Manes-Rossi et al. 2025). In addition, capacity constraints, such as deficits in skills or technological infrastructure, as well as in the ability to orchestrate collaborative processes and leverage external resources (Emerson, Nabatchi, and Balogh 2012; Nabatchi, Sancino, and Sicilia 2017), may hinder the pursue of the SDGs.

Summary of prior research and research gap

Taken together, these streams offer a rich but fragmented understanding of SDG governance, while leaving largely unexplored how public managers themselves make sense of these arrangements in practice. Existing research on SDG implementation in the public sector has predominantly adopted an institutional or system-level perspective, focusing on governance arrangements, policy frameworks, and enabling conditions that are assumed to support sustainable development. Within this body of work, public managers are often positioned as implementers of predefined

governance models and strategic priorities, rather than as active interpreters of sustainability agendas. Public managers' viewpoints shape how sustainability objectives are translated into managerial practices, organizational choices, and coordination mechanisms. Despite this central role, and although some studies have begun to explore how public managers interpret sustainability more broadly (Zeemering 2009; Fiorino 2010; Sinervo and Laihonon 2024), limited attention has been devoted to examining how public managers interpret, prioritize, and negotiate the specific framework of the SDGs, including the goals, tools, and the challenges and barriers faced by public organizations in their pursuing.

This represents a significant gap in the literature, especially given the complexity of SDG implementation and the plurality of approaches identified in prior studies.

In light of these considerations, this study addresses the following research question:

What are the viewpoints of public managers about SDG governance, including the actors involved and their roles, as well as the SDG-related challenges and barriers faced by public organizations?

Methods

The Q-methodology was employed to explore the perspectives of 45 Italian public managers regarding sustainable development (Migchelbrink and Van de Walle 2022). Participants who were aware of SDG-related issues and worked at different public sector entities were selected for this study, enabling the collection of data on diverse views without limiting the focus to a specific organizational typology.

The Q-methodology is a valuable tool for studying human subjectivities (Brown 1980). This mixed-method approach combines qualitative and quantitative research techniques. Specifically, a survey instrument is used to ask respondents to rank a series of statements (Q-sample) reflecting the main issues of a given topic in a quasi-normal distribution (Q-sort). After the participants (P-set) complete their ranking using the Q-sort, their answers are analyzed using the factor analysis technique. This technique is applied by treating subjects as factors and grouping sets of respondents who provide a similar ranking to the Q-sample to obtain several factors, depending on how closely or differently the participants' viewpoints coincide or differ. Stephenson (1935, p.18), the creator of the Q-methodology, described this approach as correlating people instead of tests, stating, "whereas previously a large number of people were given a small number of tests, now a small number of people are given a large number of test items."

Instead of random sampling and large sample sizes, the Q-methodology uses purposive sampling and smaller sample sizes. Once the research question is formulated, the methodology can be applied through the five steps described below (Stenner, Watts, and Worrell 2008).

Step 1: generating the Q-set

In this phase, researchers collect statements expressing ideas and concepts about the topic under investigation. Different strategies can be followed to create the concourse. In the present study multiple approaches were combined. The analysis of the literature concerning the SDGs in public administration was combined and enriched with interviews with public managers participating in teaching activities to add additional concepts. This process yielded 59 statements.

To narrow down the number of statements and obtain a manageable and balanced Q-set of 36 statements, we adopted "a discourse analysis matrix" (Dryzek and Berejikian 1993) consisting of two dimensions. In the columns, we included three categories that were relevant to the topic under study: (i) enabling/hindering conditions; (ii) the actors involved; and (iii) goals, motivations, and consequences. Drawing on Dryzek and Berejikian (1993), in the rows, we considered three types of claims: definitions, opinions, and prescriptions. The allocation process was carried out after the exclusion of unclear or repetitive sentences. The authors held several meetings to

select no more than four clear and meaningful sentences, which were as diverse as possible, for each cell of the matrix (van Eijk and Steen 2014).

The final 36 statements were translated into Italian based on the native language of the study participants. To ensure understandability, in March 2023, the statements were pretested with a pool of public sector management scholars, consultants, and ministry managers. Comments and suggestions obtained in this pretest led to some marginal adjustments to the original version of the concourses.

Step 2: P-set selection

To maximize the likelihood of including a variety of distinct viewpoints, participants were purposively selected from central, regional and local governments. All participants had at least five years' experience in Italian public administration as managers or top managers and attended one of the editions of a training course on strategic planning and performance measurement offered between April 2023 and April 2024 in which sustainable development was discussed at length and in depth. Attendance at the course was used as a proxy for expertise and familiarity with the SDGs and their strategic and practical relevance for public management, which is required for participants to properly conduct the Q-sorting task. To allow participants to feel free to provide their opinions without fear of consequences, the anonymity of responses was ensured.

Step 3: data collection

During this stage, the Q-method was administered manually to 48 participants. To collect the responses, the graph shown in Figure 1 was distributed to the participants, together with the statements, which were arranged randomly and identified by a number. For each statement, the participants were asked to place the corresponding number in one of the cells in the grid based on their level of disagreement or agreement with that statement on a scale ranging from -5 (strongly disagree) to 5 (strongly agree). The replies were collected and analyzed, and the 45 completed grids were retained.

Step 4: Q-Sort analysis

This step requires the adoption of a by-person factor analysis that allows the identification of a small set of factors, which represent a group of participants expressing a similar perspective on the issues under discussion. Unlike traditional factor analysis, in the Q-methodology, individuals rather than variables are grouped together. The analysis was run using Stata with the q-factor command (Akhtar-Danesh 2018), the principal component method for extraction,

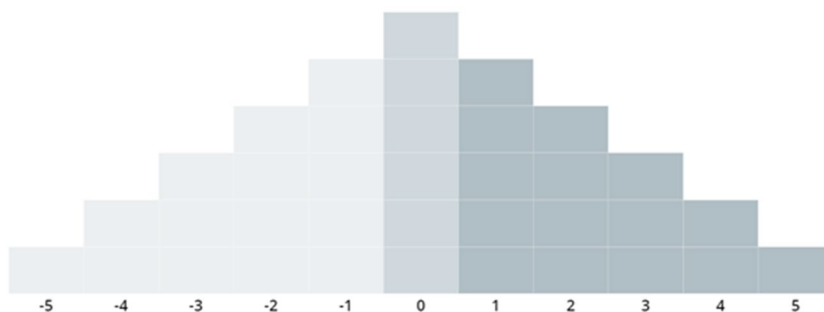


Figure 1. Q-Sort distribution view, as provided to the participants.

Table 1. Number of respondents loading on each factor and the total variance for each factor.

Factor	1	2	3
Number of respondents loading onto factor	22	12	7
Eigenvalues	11.75	3.73	3.08
% explaining variance	26.11	8.29	6.84
Cum% explaining variance	26.11	34.40	41.24

varimax for rotation, and Cohen's effect size (d). The analysis enabled the identification of distinguish statements, which were considered in the next step to interpret the viewpoints associated with each factor, and consensus statements, which had a high level of consensus among the participants.

We opted for a three-factor solution, which explained 41.24% of the total variance. Also a four-factor solution has been explored but not retained due to less significantly loading Q-sorts, limited distinguishing statements for each factor, and reduced clarity in interpretation. Table 1 shows the number of respondents loading on each factor and the total variance for each factor.

The analysis revealed four *consensus statements* with no significant differences in scores across the four factors (Cohen's effect size < 0.8). These statements were as follows: i) working with an SDG perspective requires coordination among different levels of government (Statement 3); ii) lack of interdepartmental collaboration limits the implementation of the SDGs (Statement 6); iii) for politicians, referencing the SDGs is primarily an opportunity to increase their visibility and gain greater consensus (Statement 17); iv) the relationships established to pursue the SDGs foster the development of social capital (Statement 30).

Step 5: Q-factor interpretation

In the last and most intriguing step, the Q-sorts included in each factor must be interpreted because they represent concepts and ideas that have been aggregated in a similar way, thus indicating a common view held by the participants logging in the factor. This factor array must be understood by looking at the entire set of rankings. Table 2 shows all of the statements, including the scores for each factor.

Results

The three factors identified by running the principal component analysis were interpreted by examining the items in each relevant factor array in their entirety.

Factor 1: pragmatic entity-oriented group

The first factor included 22 participants, representing 26.11% of the total variance, with an eigenvalue of 11.75. Table 3 reports the distinguishing statements for Factor 1. The public managers loading on this factor acknowledged the importance of working collaboratively with other actors in the community to implement actions from the SDG perspective (Statement 1), but seemed to believe that achieving the SDGs is mainly a matter of adequate knowledge, managerial tools, and collaboration inside the entity. In particular, they believed that top managers and public officials should be familiar with the principle of sustainability (Statement 16) and that specific tools should be used to support sustainable development within their organizations (Statement 24). Examples of these tools included specific, measurable indicators (Statement 2) and adequate strategic planning (Statement 4).

These participants did not view the availability of financial resources (Statement 12) or the adoption of laws (Statement 35) as significant enablers of SDGs implementation, but they did

Table 2. Factor Q-Sort values for each statement.

No.	Statement	Factors		
		1	2	3
1	Collaborating with other actors in the territory is important to implement interventions from an SDG perspective.	4	3	5
2	The SDGs must be linked to specific and measurable indicators.	5	1	2
3	Working with an SDG perspective requires coordination among different levels of government.	3	2	3
4	Without adequate strategic planning, there is a risk that pursuing the SDGs will be merely symbolic.	4	2	4
5	When the root causes of the problems that the SDGs seek to solve stem from deeply rooted local traditions and entrenched practices, they can become barriers to action (e.g., corruption).	2	0	−1
6	Lack of interdepartmental collaboration limits the implementation of the SDGs.	−1	−1	−2
7	A continuous monitoring system for the SDGs can foster collaboration.	0	−1	−1
8	Having common reporting models for the SDGs is important to increase accountability.	0	0	3
9	Media and digital platforms can facilitate the exchange of innovative ideas related to the SDGs.	1	−1	−2
10	To develop an integrated governance system, it is important to map the strategies and policies for the SDGs at different levels of government.	1	2	3
11	Pursuing the SDGs requires the preparation of detailed plans that clarify the roles of various actors.	2	−1	1
12	Achieving the SDGs requires specific financial resources.	−1	−4	2
13	Politicians must identify the priority SDGs for their own community.	−1	0	−4
14	International and national actors must support the pursuit of the SDGs by providing funding to public administrations, businesses, and NGO entities.	−2	−1	2
15	Public sector organizations play a fundamental role in developing connections between key actors and stakeholders involved in local development.	2	5	4
16	Executives and public officials should have greater familiarity with the principles of sustainable development.	3	1	0
17	For politicians, referencing the SDGs is primarily an opportunity to increase their visibility and gain greater consensus.	−5	−5	−5
18	Active citizen involvement facilitates the identification of policies and actions aimed at the SDGs.	2	1	−3
19	Local entities are in the best position to ensure that SDG-related needs are understood.	0	2	1
20	Public managers play a significant role in raising awareness among internal and external stakeholders on SDG-related issues.	1	−2	−1
21	Dialogue among different actors is essential to ensure the persistence of a shared vision for the SDGs.	1	0	−1
22	Managers must support politicians in promoting a culture of innovation oriented toward the SDGs.	0	1	−4
23	Public administrations, in pursuing the SDGs, must rethink the methods of delivering public services, assessing their social and environmental impacts.	3	3	−3
24	Managers must activate tools to support sustainable development within their organizations.	1	−3	−3
25	The SDGs provide a common language to discuss topics of general interest.	0	−2	−1
26	Pursuing the SDGs creates tensions between the need to show short-term results and achieve medium-to-long-term effects.	−3	−4	0
27	Shared performance measures for the SDGs help sensitize employees to sustainability principles.	0	−2	0
28	Tensions between economic, social, and environmental priorities may lead to operational immobilism.	−3	−3	0
29	The plurality of interests converging in PSOs is the reason for the difficulties they face in playing a key role in pursuing Agenda 2030.	−4	−3	1
30	The relationships established to pursue the SDGs foster the development of social capital.	−1	0	0
31	Territorial governance focused on the SDGs promotes medium-to-long-term local development.	−2	4	1
32	A shared vision for the SDGs can overcome tensions between the scarcity of available resources and the plurality of objectives to be achieved.	−2	4	−2
33	SDG-oriented governance allows space for usually marginalized stakeholder categories.	−2	1	1
34	Defining local-level strategies today cannot overlook the adaptation of the SDGs for the reference community.	−1	3	0

(Continued)

Table 2. Continued.

No.	Statement	Factors		
		1	2	3
35	When developing laws consistent with the SDGs, it is necessary to avoid fueling tensions between social, environmental, and economic impacts.	−4	0	−2
36	The results achieved by public sector organizations regarding the SDGs are limited by the lack of systemic policies in this matter.	−3	−2	2

Table 3. Distinguishing Statements for Factor 1.

Distinguishing Statements for Factor 1	F_1	F_2	F_3
16 Executives and public officials should have greater familiarity with the principles of sustainable development.	3	1	0
9 Media and digital platforms can facilitate the exchange of innovative ideas related to the SDGs.	1	−1	−2
24 Managers must activate tools to support sustainable development within their organizations.	1	−3	−3
12 Achieving the SDGs requires specific financial resources.	−1	−4	2
33 SDG-oriented governance allows space for usually marginalized stakeholder categories.	−2	1	1
31 Territorial governance focused on the SDGs promotes medium-to-long-term local development.	−2	4	1
35 When developing laws consistent with the SDGs, it is necessary to avoid fueling tensions between social, environmental, and economic impacts.	−4	0	−2

Table 4. Distinguishing Statements for Factor 2.

Distinguishing Statements for Factor 2	F_1	F_2	F_3
31 Territorial governance focused on the SDGs promotes medium-to-long-term local development.	−2	4	1
32 A shared vision for the SDGs can overcome tensions between the scarcity of available resources and the plurality of objectives to be achieved.	−2	4	−2
34 Defining local-level strategies today cannot overlook the adaptation of the SDGs for the reference community.	−1	3	0
4 Without adequate strategic planning, there is a risk that pursuing the SDGs will be merely symbolic.	4	2	4
35 When developing laws consistent with the SDGs, it is necessary to avoid fueling tensions between social, environmental, and economic impacts.	−4	0	−2
12 Achieving the SDGs requires specific financial resources.	−1	−4	2

find it important to rethink how public services are delivered and pay attention to the impact generated (Statement 23).

They did not believe that marginalized stakeholders could have more of a voice because of governance inspired by the UN goals (Statement 33), nor did they believe in the power of territorial governance to achieve medium-to-long-term local development (Statement 31). Furthermore, they did not perceive an SDG orientation as a source of difficulty due to competing interests (Statement 29), tensions between short- and long-term outcomes (Statement 26), or tradeoffs among economic, social, and environmental priorities (Statement 28).

Overall, the public managers in this group seemed relatively unconcerned with external constraints, financial resources, and the tensions that could arise between the social, environmental, and economic dimensions of sustainability. Instead, they stressed the importance of internal organizational mechanisms, such as organizational knowledge, managerial competencies, and structured planning. Additionally, they advocated embedding sustainability principles into institutional knowledge and developing tools that signal the importance of the SDGs, in order to translate them into measurable practices.

Their perspective was pragmatic and internally focused. They primarily interpreted SDG implementation as an internal organizational challenge that requires new competencies, planning, structured processes, and the systematic development of tools and metrics to support the implementation of sustainable practices. Their perspective suggests a belief that sustainability can be effectively pursued

Table 5. Distinguishing Statements for Factor 3.

Distinguishing Statements for Factor 3	F_1	F_2	F_3
8 Having common reporting models for the SDGs is important to increase accountability.	0	0	3
36 The results achieved by public sector organizations regarding the SDGs are limited by the lack of systemic policies in this matter.	-3	-2	2
14 International and national actors must support the pursuit of the SDGs by providing funding to public administrations, businesses, and NGO entities.	-2	-1	2
12 Achieving the SDGs requires specific financial resources.	-1	-4	2
29 The plurality of interests converging in public sector organizations is the reason for the difficulties they face in playing a key role in pursuing Agenda 2030.	-4	-3	1
31 Territorial governance focused on the SDGs promotes medium-to-long-term local development.	-2	4	1
26 Pursuing the SDGs creates tensions between the need to show short-term results and achieve medium-to-long-term effects.	-3	-4	0
28 Tensions between economic, social, and environmental priorities may lead to operational immobilism.	-3	-3	0
21 Dialogue among different actors is essential to ensure the persistence of a shared vision for the SDGs.	1	0	-1
35 When developing laws consistent with the SDGs, it is necessary to avoid fueling tensions between social, environmental, and economic impacts.	-4	0	-2
23 Public administrations, in pursuing the SDGs, must rethink the methods of delivering public services, assessing their social and environmental impacts.	3	3	-3
18 Active citizen involvement facilitates the identification of policies and actions aimed at the SDGs.	2	1	-3
13 Politicians must identify the priority SDGs for their own community.	-1	0	-4
22 Managers must support politicians in promoting a culture of innovation oriented toward the SDGs.	0	1	-4

through competent management and institutionalized knowledge without necessarily requiring substantial increases in funding or expanded interactions with external stakeholders.

Factor 2: local system orchestration-focused group

The second factor included 12 participants, representing 8.29% of the total variance, with an eigenvalue of 3.73. Table 4 reports the distinguishing statements for Factor 2. The public managers loading on this factor recognized that public sector organizations play a fundamental role in developing connections between key actors and stakeholders (Statement 15) and believed that orienting territorial governance on SDGs may promote medium-to-long-term local development (Statement 31). They also emphasized the need for local-level planning rooted in a culture of sustainability for the community's benefit (Statement 34).

Although they believed that financial resources are needed to achieve the SDGs, they highlighted the importance of cultivating a shared vision (Statement 32) to strike the right balance between the scarcity of resources and the pressure arising from the plurality of objectives. Notably, they did not perceive the plurality of interests or the potential tensions between short- and long-term goals (Statement 26) or among economic, social, and environmental priorities (Statement 28) or the plurality of interests at stake (Statement 29) as significant barriers to implementation.

These participants interpreted the SDGs through the lens of territorial development. They viewed public organizations as orchestrators of territorial networks, fostering connections among diverse stakeholders. They had confidence in governance mechanisms and strategic alignment rather than in formal regulations or funding streams. In this view, successful SDG implementation depends more on shared direction and cultural embedding than on external resources.

Factor 3: resource- and policy-focused group

The third factor included seven participants, accounting for 6.84% of the total variance, with an eigenvalue of 3.08. Table 5 reports the distinguishing statements for Factor 3. The public

managers in this group emphasized the importance of collaboration with other actors in the territory to implement SDG-oriented interventions (Statement 1), and they recognized the pivotal role of public sector organizations in connecting key actors and stakeholders involved in local development (Statement 15).

These participants identified the achievement of the SDGs as dependent on the availability of dedicated funds from national and supranational organizations (Statement 14) and the local level (Statement 12) as well as the existence of systemic policy frameworks (Statement 36). plurality of interests (Statement 29) and tensions between priorities (Statements 26 and 28) may represent challenges undermining PSOs' coordination role in achieving the SDGs.

They placed limited importance on rethinking how public services are delivered (Statement 23), engaging citizens in SDG-policy oriented design processes (Statement 18), and relying on political leadership to define priorities or promote SDG-oriented innovation (Statement 13). They also downplayed the role of managers in assisting politicians in promoting sustainability-driven innovation (Statement 22) and did not attribute great relevance to dialogue among different actors to support a shared vision of sustainable development (Statement 21). At the same time, they believed that common tools for reporting on the progress of the 2030 Agenda (Statement 8) and strategic planning (Statement 4) are key for promoting the SDGs and achieving results, demonstrating their attention to accountability issues, even though they do not consider important the role of a dialogue with stakeholders. Overall, these public managers can be described as resource-dependent and policy-oriented administrators who view the achievement of the SDGs more as a function of the institutional framework and resource availability than as a process driven by citizen engagement, service innovation, or political leadership.

Discussion

As previously mentioned, this study used Q-methodology to analyze public managers' subjective perceptions of the SDGs. The participants adopted three distinct but partially overlapping interpretative frames: the pragmatic entity-oriented, the local system orchestration-focused, and the resource- and policy-focused perspectives. Even though their perspectives followed distinct interpretative frames, the participants exhibited partial convergence in their reasoning, offering insights into both shared and divergent approaches to SDG implementation. These perspectives also offer a nuanced interpretation of the key themes discussed in the literature, thus reflecting a particular configuration of beliefs shaped by the participants' institutional context, managerial logic, and understanding of sustainability practices. In this way, the findings both complement and extend existing SDG research by highlighting the heterogeneity of managerial sensemaking that underpins SDG implementation and practices.

Across two of the three perspectives, participatory decision-making and stakeholder involvement emerged as important elements of SDG implementation. However, unlike much of the SDG literature that normatively promotes participation as a desirable principle, the findings reveal differing assumptions about how participation should be operationalized and what role it should play in practice. The pragmatic entity-oriented and local system orchestration-focused groups emphasized the value of involving citizens and stakeholders in decision-making processes. They viewed participatory approaches as essential to enhancing the legitimacy and effectiveness of sustainability initiatives, as they help build a shared vision and foster consensus. This aligns with governance-for-sustainability research that conceptualizes participation not merely as consultation, but as structured interaction through deliberative forums, co-design processes, and collaborative platforms that enable joint problem definition and solution development (Ansell, Sørensen, and Torfing 2022; Glass and Newig 2019; Meadowcroft 2007). From this perspective, participatory decision-making can be implemented through mechanisms such as multi-stakeholder working groups, participatory planning processes, co-production of services, and iterative feedback systems that link citizens and civil society actors to policy design and monitoring stages

(Eriksson 2022; van Eijk and Steen 2014). The local system orchestration-focused group, in particular, reflects the literature on place-based governance and co-creation, which emphasizes the role of public organizations as conveners and facilitators of territorial networks rather than as sole decision-makers (Ioppolo et al. 2016; Kapucu and Beaudet 2020). In this view, participation is embedded in ongoing relational processes aimed at building trust, social capital, and long-term commitment to sustainability goals.

In contrast, the resource- and policy-focused group expressed skepticism toward public participation and viewed citizen engagement as secondary to strategic planning and institutional coordination, preferring structured governance led by formal authority. This stance seems to mirror a more hierarchical, technocratic approach to policy implementation, where participation is perceived as potentially slowing decision-making or complicating coordination. This divergence mirrors tensions identified in policy implementation research between inclusive governance models and efficiency-oriented administrative rationales (Treib et al. 2007). It is worth emphasizing that this approach may limit opportunities for inclusion and trust-building challenges, as discussed in previous studies on sustainability governance (Guarini, Mori, and Zuffada 2022).

Another key area of differentiation among the three groups concerns the perceived enablers of SDG implementation, particularly the relative importance assigned to internal capabilities, strategic planning, the availability of financial resources, and institutional support. Although the literature underscores the importance of combining internal enablers with adequate financial and institutional frameworks (e.g., Ansell, Sørensen, and Torfing 2022; Benito, Guillamón, and Ríos 2023; Bisogno et al. 2023; Guarini, Mori, and Zuffada 2021), these groups assigned varying levels of importance to these factors, reflecting distinct assumptions about what drives effective sustainable actions.

In this context, the pragmatic entity-oriented group emphasized the use of internal knowledge and skills to embed sustainability into decision-making with the support of tools, such as accountability mechanisms and strategic planning framing governance primarily as an organizational challenge (e.g., Breuer et al. 2022; Cohen, Manes-Rossi, and Brusca 2023; Guarini, Mori, and Zuffada 2021;2022; Fiorino 2010). This view resonates with research on organizational capacity and managerial professionalism, which highlights the importance of internal systems, competencies, and tools in translating policy goals into operational practices (Breuer et al. 2022; Guarini, Mori, and Zuffada 2021).

The importance of strategic planning was recognized by the local system orchestration-focused group, underscoring the need for shared vision, long-term orientation, and the integration of sustainability into the local identity. Their perspective closely aligns with inter-sector collaboration and network governance literature, which emphasizes horizontal coordination among public, private, and nonprofit actors to address complex, cross-cutting policy problems such as sustainable development (Ansell, Sørensen, and Torfing 2022; Kapucu and Beaudet 2020; Ostrom 2005). Here, public managers act as orchestrators who convene actors, mediate interests, and sustain collective action over time.

Both groups placed strong emphasis on sustainability principles, particularly on translating the SDGs into actionable tools, such as measurable indicators and structured planning (Niemann and Hoppe 2018). This shared view reinforces prior research highlighting strategic planning as a central enabler of SDG implementation and as one of the most formal expressions of an organization's values and culture (Breuer et al. 2022; Guarini, Mori, and Zuffada 2021; Lauwo et al. 2022).

Interestingly, in contrast to previous studies that viewed financial support as critical (e.g., Ansell, Sørensen, and Torfing 2022; Benito, Guillamón, and Ríos 2023; Bisogno et al. 2023; Ioppolo et al. 2016; Martens 2013; McDonalds et al. 2024; Mutiarani and Siswanto 2020), the pragmatic entity-oriented and the local system orchestration-focused groups downplayed the relevance of financial support. The former seemed to assume that SDG implementation can be driven internally through organizational redesign and managerial tools, while the latter relied more on a shared vision and cultural alignment. Notably, in both cases, there was a belief that the responsibility for

SDG progress lies heavily within the organization as well as a belief that sustainability can be achieved by doing things differently, rather than by accessing additional funding.

While the pragmatic entity-oriented and the local system orchestration-focused groups seemed to rely on adaptive planning and managerial innovation to optimize existing resources rather than on external interventions, the resource- and policy-focused group highlighted the centrality of institutional mechanisms and financial resources as prerequisites for sustainable action. They emphasized that SDG implementation requires dedicated policies and funding to be effective (Bisogno et al. 2025; Guarini, Mori, and Zuffada 2021), highlighting the role of national and international institutions in creating the conditions for sustainable development efforts at lower levels. This perspective highlights the need to embed SDG implementation within a broader governance framework that ensures continuity and effectiveness. This interpretation reflects an implementation logic grounded in institutional dependency and compliance, emphasizing systemic policy alignment rather than deliberative collaboration. Such a view complements prior research highlighting the importance of multilevel governance and policy coherence for SDG implementation, while also illustrating the risk of reducing governance to procedural coordination without meaningful stakeholder engagement (Glass and Newig 2019).

Among the enabling conditions, governance and collaboration emerged as shared themes across the groups, although they were interpreted in markedly different ways. The pragmatic entity-oriented group emphasized the role of internal coordination, suggesting that effective SDG implementation primarily depends on internal mechanisms and managerial alignment. This view reflects an organization-centric governance logic and suggests that some public managers view SDG implementation as achievable through organizational change and reconfiguration of existing resources.

In contrast, the other two groups supported governance models focused on interorganizational collaboration. However, the local system orchestration-focused group envisioned governance as a relational process grounded in territorial cohesion and shared vision-building. This group aligned closely with previous studies on governance for sustainable development that stressed the importance of collective decision-making, cross-sector coordination, and long-term visioning at the local level (Ioppolo et al. 2016; Meadowcroft 2007). They highlighted the role of public organizations in orchestrating networks and fostering stakeholder engagement around a common sustainability agenda.

The resource- and policy-focused group primarily supported interorganizational collaboration as a functional mechanism for securing resources and fostering systemic policies. Their understanding of governance appeared to be more instrumental, emphasizing vertical coordination with higher-level institutions rather than inclusive horizontal stakeholder engagement. This perspective aligns with the concern expressed in previous studies that, without meaningful deliberation and stakeholder integration, governance may become overly procedural or technocratic (Glass and Newig 2019). Furthermore, it echoes studies that highlight structural constraints and the importance of national and supranational support for local SDG implementation (Benito, Guillamón, and Ríos 2023; Martens 2013). These contrasting views reveal underlying tensions between autonomy-oriented and dependency-oriented implementation logics.

Overall, the study findings revealed tension between reliance on organizational autonomy and internal capacity building and reliance on interdependencies, external stakeholders, and enabling conditions. These findings suggest that public managers understand SDG implementation through distinct lenses. Some consider achieving the SDGs primarily an internal organizational challenge, focusing on public administrations' capacity, robust managerial tools, and strategic planning. Others emphasize the importance of systemic policy frameworks, resource allocation, and external collaboration.

Conclusions

Utilizing the Q-methodology, the present study analyzed public managers' perceptions of the SDGs and identified three distinct perspectives. Each perspective prioritizes different

combinations of organizational competencies and tools, local collaboration, financial resources, and a supportive institutional framework. Together, these perspectives offer a nuanced understanding of how SDG implementation is interpreted and enacted within public sector organizations providing important and distinct implications for research and practice.

From a research standpoint, this study contributes to the academic debate on the SDGs by offering an in-depth analysis of public managers' views, thereby addressing a gap in the literature. In addition, the analysis enables the identification of tradeoffs between an internal organizational focus and external interdependencies, reliance on capacity building or the enabling of systemic support, and the orchestration of relationships with external stakeholders or organizational mechanisms. The tension between these tradeoffs reflects divergent assumptions about where the responsibility for SDG advancement lies—within the boundaries of public administration itself or across a network of actors and structural conditions operating at multiple levels.

The study findings also revealed contrasting assumptions about the locus of responsibility for SDGs implementation and the ways and mechanisms through which sustainable development is advanced. The coexistence of these views suggests competing approaches to implementing the SDGs within public sector practice and to fostering their implementation. These differing perspectives also highlight the complexity of public sector management in the context of sustainable development and point to the need for further investigation.

From a practical standpoint, this study offers valuable insights for governments and policymakers. The coexistence of a plurality of managerial approaches (which contradict each other to some extent) highlights the complexity of SDG governance and points to the need for tailored yet complementary interventions. Managers aligned with the pragmatic entity-oriented perspective are best supported through investments in internal capacity building, SDG-aligned strategic planning tools, and performance management systems that make sustainability objectives operational within individual public administrations. For those closer to the local system orchestration-focused perspective, policymakers should facilitate the active engagement of public managers, politicians, civil society, and private sector actor by creating institutional spaces for stakeholder participation, fostering inter-sector collaboration, and enabling public managers to act as facilitators of shared vision-building at the local level. Furthermore, new managerial skills should be developed, and technical tools should be shaped according to the SDGs. Investments in managerial competencies, strategic planning, and accountability tools can help embed the SDGs into routine decision-making and performance management practices. Finally, for managers reflecting the resource- and policy-focused perspective, skills and tools need to be accompanied by regulatory frameworks and funding mechanisms that support coherent and effective SDG actions highlighting the irreplaceable role of national and supra-national institutions in creating the enabling environment within which local SDG action can gain traction. While these recommendations are specifically tailored to resonate with the distinct managerial perspectives identified in this study, they should not be regarded as mutually exclusive, as each can contribute to more effective SDG governance across all public organizations.

As with all empirical research, this study has certain limitations. The perspectives identified using the Q-methodology may not be exhaustive, and additional viewpoints may exist beyond those captured in this context. In addition, this study was conducted in a single national setting. Future research could extend the analysis to other countries, particularly those with different administrative settings, as well as cultural and institutional traditions concerning citizen participation, to assess the transferability and robustness of the findings. Furthermore, the number of respondents was limited. Although the Q-methodology does not require large samples, a broader participant base could have strengthened the interpretability and generalizability of the results. Future studies could replicate the analysis using a larger, more diverse sample, also integrating more comprehensive demographic data to enrich the interpretation of Q-factors.

Overall, the study findings underscore the range of SDG-related challenges and priorities within public sector management. Competencies are pivotal, and equipping public managers and

officials with the knowledge and tools needed to achieve the SDGs within the public sector should be considered a priority. At the same time, it should be remembered that sustainable development efforts cannot be achieved in isolation: SDG implementation in the public sector is not merely a technical or financial challenge but a deeply interpretive and governance-driven process; external collaboration and cooperation among stakeholders and a long-term vision for local development could drive sustainable outcomes. Recognizing and addressing the plurality of managerial perspectives is crucial for advancing more effective, inclusive, and sustainable implementation strategies.

Disclosure statement

No potential conflict of interest was reported by the author(s).

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