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Introduction

- Within the public sector, many local governments, especially larger cities and counties, are hiring sustainability managers to help these municipalities reach their sustainability objectives and address environmental concerns (Wang et al., 2014).
- Sustainability managers in local government are responsible designing and implementing environmental policies, coordinating sustainability programs across departments, engaging with the community, pursuing funding opportunities, and ensuring adherence to environmental standards (MacDonald et al., 2020).
- Although there has been increasing demand for these professionals, little research has been conducted on the traits and skills that sustainability needed for these leaders to be successful (Wang et al., 2014).
- The majority of existing research on sustainability leadership competencies remains largely theoretical, with limited application of empirical methodologies (Wiek et al. 2011).
- Moreover, much of the literature on sustainability leadership centers on enhancing educational program implementation to improve student outcomes, rather than examining the specific competencies required of sustainability professionals (Bruyere, 2015; Salgado et al., 2018).
- A widely recognized framework for sustainability leadership, proposed by Wiek et al. (2011), outlines four core competencies essential for sustainability professionals: systems-thinking competence, anticipatory competence, normative competence, and strategic competence.
- A closely related study analyzed interview data from sustainability managers across various Canadian municipalities and identified eleven key competencies: communication, change management, multidisciplinary collaboration, sustainability knowledge, strategic thinking, information seeking, project management, future-oriented thinking, sustainability values, and systems thinking (MacDonald et al., 2020).
- The objective of our ongoing research project is to deepen understanding of the competencies required of sustainability professionals by analyzing 59 semi-structured interviews conducted with sustainability managers from local governments across the United States.
- This project contributes to the existing literature by addressing a critical gap through its empirical focus on the competencies practicing sustainability professionals need, offering practical insights that extend beyond the predominantly theoretical and education-centered frameworks currently available.

Methods

- Two researchers conducted 59 semi-structured Zoom interviews with local government sustainability managers from across the United States; the present analysis is based on a subset of 50 interviews from this sample.
- Jurisdictions were randomly selected from a list of all U.S. cities and counties that belonged to the Urban Sustainability Directors Network (USDN).
- Interviewees were leaders in these jurisdictions' sustainability units.
- Respondents asked the following prompt: "I would like you to think of a local government or non-profit sustainability leader who you consider effective. This can be someone you know or observe currently, or someone from the past. What types of traits or behaviors does this person display that you think makes that person is effective?"
- Interviews recorded in Zoom, transcribed by Otter.ai, and coded in Dedoose.
- The lead researcher developed the initial coding framework based on her knowledge of the interviews, existing research, and AI-generated thematic analysis of interview data.
- Codes and their corresponding definitions were iteratively revised throughout the analysis process in response to emerging insights and researcher judgment.
- To ensure consistency and minimize potential bias, the interviews were independently coded by two researchers.

Preliminary Findings

Traits of effective sustainability leaders	Interviewee frequency (n = 50)
Has strong relationship building skills	23
Thinks strategically	16
Has strong communication skills	14
Is persistent	9
Is knowledgeable about sustainability	9
Is politically savvy	8
Is open-minded	8
Fosters buy-in	6
Has good interpersonal skills	6
Focuses on equity	5
Understands bureaucracy	5
Is innovative	4
Is good at problem-solving	4
Is passionate	4
Is adaptable	3
Is optimistic	3
Is data-driven	2
Acts with integrity	2
Is skilled at resource acquisition	1

Table 1. Identified behaviors of effective leaders, by interviewee frequency

Code	Exemplary Quote
Has strong relationship building skills	“So her just understanding and she was very relationship based, like very good listening skills, and very collaborative”
Thinks strategically	“The first and most critical is being able to be a system thinker, understanding levers of transformation and how to apply them”
Has strong communication skills	“I think many folks that I see, their most effective, communication, their ability to communicate concisely and to to effectively tailor their message to whomever they're talking to”
Is persistent	“And he's just relentless in getting to what he wants, it's that drive that pushes everyone around him that works for him, or who's associated with him to do more”
Is knowledgeable about sustainability	“I think that the people who are the most effective are, they know the subject matter really well”
Is politically savvy	“And so her understanding the politics, understanding organizational culture, and how change happens in an organization was amazing”
Is open-minded	“But the traits that I think that she displays that I really admire is that she's so open, she's a person that's not, she doesn't walk into the room and say, like, I have all the answers, and you all need to do X, Y, and Z. Like she's just very open and collaborative”

Table 2. Exemplary quotes of most frequently cited traits

Discussion

- Participants highlighted a blend of both hard and soft skills as essential to effective sustainability leadership. However, the greater emphasis on soft skills underscores their central role in shaping leadership effectiveness within real-world sustainability practice.
- Strong relationship-building skills (23 mentions) emerged as the most frequently cited trait, aligning with MacDonald et al.'s focus (2020) on multidisciplinary collaboration. The high frequency of mentions suggests that real-world leadership effectiveness relies heavily on the ability to cultivate trust and build coalitions across units.
- Strategic thinking (16 mentions) was another dominant theme, closely aligning with strategic competence in Wiek et al.'s framework (2011). This finding reflects the need for long-term visioning and systems-level thinking in sustainability governance practices.
- Strong communication skills (14 mentions) is consistent with MacDonald et al.'s identification of communication as a key competency area (2020). Effective sustainability leaders must be able to translate technical and complex information into accessible language for diverse audiences.
- Knowledgeability about sustainability (9 mentions) corresponds with findings in MacDonald et al. (2020). Participants noted that effective leaders possess strong subject-matter expertise, including both technical and conceptual understanding. While foundational, this competency was mentioned less frequently than relational or strategic traits, suggesting that technical knowledge alone is insufficient for success in complex leadership contexts.
- Being politically savvy (8 mentions) reflects competencies Wiek et al. (2011) and MacDonald et al. (2020)'s discuss and involves having the skills needed to navigate political dynamics. This finding highlights that the ability to work effectively with elected officials is critical for sustainability leaders.
- Corresponding with competencies identified by Wiek et al. (2011) and MacDonald et al. (2020), our respondents talked about the importance of being open-minded (8 mentions). Inclusive and participatory approaches are central to sustainability work.
- Another key trait, persistence (9 mentions), highlights the importance of emotional resilience and determination in sustainability practice but has not been identified by other researchers.
- Further steps include: (1) completing the full coding of all 59 interviews, ensuring intercoder reliability and refinement of code definitions as necessary and (2) conducting comparative analyses using background information about the interviewees and jurisdictions, such as interviewee race, interviewee gender, interviewee educational level, and the political affiliation of the state's governor and the highest elected official in the jurisdiction, to assess variation in perceived leadership traits.

References and Appendix



Acknowledgements

We gratefully acknowledge the support of the Binghamton University Projects for New Undergraduate Researchers (BUPNUR) program. This project would not have been possible without the program's generous support by funding a student stipends, fostering a meaningful undergraduate research experience.