

Understanding consumer trust and distrust in a public service ecosystem

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Abstract

Purpose – Despite consumer trust being a key construct within the services marketing domain, there is a lack of consensus on the conceptualisation – specifically the relationship with distrust, and variations across different actors in the services ecosystem. The purpose of this study is to explore the conceptualisations of trust and distrust across different levels of a public service ecosystem in a transformative context of energy services.

Design/methodology/approach – A systematic literature review of 70 academic papers that explore trust and distrust in the energy service sector was undertaken.

Findings – The results revealed two potential models of the relationship between trust and distrust in a public service ecosystem. Furthermore, the results identified that trust and distrust appear to vary for different actors in the energy service ecosystem and have different antecedent factors.

Originality/value – To the best of the authors' knowledge, this study is the first to directly compare and explore the differences between trust and distrust in a public service context and identified little consensus in the conceptualisation of trust and distrust. Furthermore, this study is the first to adopt an ecosystem perspective for trust or distrust with trust resulting from interactions with individuals at all levels of the ecosystem whereas distrust was derived from structures and processes at the meso and macro-level.

Keywords Energy (SDG 7), Service ecosystems, Trust

Paper type Literature review

1. Introduction

The United Nation's 17 *Sustainable Development Goals (SDGs)* provide a vital framework for guiding global efforts towards peace and prosperity for people and the planet, now and into the future (United Nations, 2015). In addition, these goals provide direction for how service organisations and researchers can leverage their expertise to positively transform human life on Planet Earth (Russell-Bennett *et al.*, 2024a, 2024b). Despite the critical importance of achieving the goals for global development and sustainability, several reports reveal that no country is on track to meet the 2030 SDG targets (United Nations, 2024; Sachs *et al.*, 2019). Public institutions are among the key actors positioned to drive progress across the SDGs due to their direct ability to influence policy and resource allocation (United Nations, 2015). While all public services play a vital role in achieving the SDGs, the energy goals are highly dependent on public institutions for regulation, policy and infrastructure as reliable access to energy underpins modern life and enables progress in areas such as health and infrastructure (International Energy Association, 2025).

Like many public sectors, the energy sector is facing numerous challenges globally amid a time of significant transformation. Not

only are the SDGs related to energy, climate and the environment showing the slowest progress (United Nations, 2024; Sachs *et al.*, 2019), but the energy sector has been consistently ranked as one of the least trusted sectors across the globe (Edelman, 2024). Declining trust is a trend that is facing many public institutions including health, education and law (Edelman, 2024). In fact, reports show that distrust is now the default for many consumers (Edelman, 2023). Falling trust ultimately diminishes these institutions' ability to mobilise the public support and collaboration needed to effectively deliver and implement the services and policies needed to achieve the SDGs (Buriak and Artemenko, 2022).

These challenges facing energy services come at a time when the sector is undergoing a major and important transition to renewable energy, as well as substantial shifts in actor participation. While a rise in public-private partnerships is a trend seen across multiple public service contexts, this rise has been most significant across the energy sector (Mofokeng *et al.*, 2024). In addition to increases in private companies' participation, the transition to RE requires greater consumer participation, with rise of the "prosumer" – a term coined to represent consumers who are also producers of energy

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(Büscher and Sumpf, 2015). The growing landscape of participation further underscores the importance of trust in the sector's ability to navigate this transformation. Energy thus offers a rich context for examining consumer trust and distrust within public service ecosystems, as it reflects challenges faced by other sectors – often in more acute or intensified forms. Indeed, service researchers, Government and industry leaders have identified the need for further investigations into trust and energy during this transformative time (The Energy Charter, 2019; Australian Energy Regulator, 2022; Russell-Bennett *et al.*, 2024a, 2024b). Furthermore “reclaiming trust” has been identified as one of the 2025 research priorities by the editors of the *Journal of Services Marketing* (Rosenbaum and Heinonen, 2025), further highlighting the need for service researchers to investigate the topic of trust in a changing world.

While trust has a long and rich history within services marketing, including the seminal commitment-trust theory of relationship marketing by Morgan and Hunt (1994), little work has been done in recent times to examine the constructs of trust and distrust. This is surprising given the significant global events that have fundamentally altered how consumers trust such as the invention of the internet and the global pandemic (Edelman, 2024). Furthermore, with the notable exceptions of Friend *et al.* (2010) and Patterson *et al.* (2010), there is an absence of research on distrust in the services marketing literature. As with many other constructs used by scholars across diverse disciplines, central ideas regarding trust and distrust have been lost or oversimplified over time (Schilke *et al.*, 2021). Major inconsistencies now exist across scholars and disciplines on the conceptualisation and definition of trust and distrust. Despite being a fundamental aspect of psychometric principle (Watson and Clark, 1997), there is currently no consensus regarding the relationship between these constructs (Schoorman *et al.*, 2007; Lewicki *et al.*, 1998). Furthermore, trust and distrust are considered multi-dimensional and polysemic meaning they are composed of several dimensions that can differ depending on the context (Bachmann and Inkpen, 2011). However, there is a great deal of variation on the dimensions included. For instance, Latif *et al.* (2021) uses the dimensions of integrity and reliability while Friend *et al.* (2010) uses dimensions of credibility and benevolence. There is no research that has examined any variations between dimensions of trust or distrust across ecosystem actors.

Service ecosystems consist of multiple levels with common labels being macro, meso and micro (Beirão *et al.*, 2017). At each level, there are different actors including government and institutions (macro), service organisations (meso) and individual consumers (micro) (Krot and Rudawska, 2016). Actors at the macro-level are public institutions, while those at the meso are primarily private companies. Existing research on trust or distrust of actors in the service ecosystem largely focuses on a single level of the system and examines the construct at a holistic aggregate construct level rather than examining the dimensions (Peters and Youssef, 2016). Understanding the dimensional differences of trust and distrust across ecosystem actors is important as this allows for specificity and granularity of the construct (DeVellis, 1991) and may improve the predictive power of the construct and reduce measurement error (DeVellis, 1991). Dimensional

understanding can also improve practical services marketing interventions that aim to build trust and reduce distrust.

While fostering specialised insights, this fragmented understanding of trust and distrust has hindered cumulative progress in understanding these constructs (Schilke *et al.*, 2021). This fragmentation has resulted in confusion about suitable models and strategies for managing trust and distrust in public service settings such as the energy ecosystem. The purpose of this study is therefore to explore the conceptualisations of trust and distrust across different levels of the public service ecosystem, using the energy system as the context due to its significance for SDGs and its reflection of broader shifts occurring across other public service sectors. Thus, this research will address two key problems in the services marketing literature. The first being that there is a lack of research on distrust as well as inconsistent and fragmented conceptualisation of the relationship between trust and distrust in the public services literature. Secondly, there is a lack of a holistic, whole of system approach to understanding consumer trust and distrust for actors across the three levels of the public service ecosystem. Using the context of an important public transformative service, energy, this study seeks to address two research questions (RQs):

- RQ1. How is trust and distrust conceptualised in a public service ecosystem? and
- RQ2. How does trust, distrust and the relative importance of the dimensions vary across actors in a public service ecosystem?

These research questions are addressed through a systematic literature review of 70 journal articles in the energy service literature that investigate consumer trust and distrust. The use of a single service context was chosen to reduce complexity and gain a deeper understanding of the relationship between trust and distrust without contextual factors creating confusion. This paper commences with the background literature on trust and distrust in general and in the services literature to identify the problems and research questions to be addressed, then outlines the method, presents the findings and then finishes with the discussion.

2. Background literature

2.1 Background literature on trust and distrust

2.1.1 Conceptualisation of trust

Trust is a vital foundation for functioning societies and relationships, enabling collaboration, fostering cooperation and driving the innovation required to navigate complex challenges in times of uncertainty and vulnerability (McKnight *et al.*, 2004). Trust simplifies decision-making by acting as a reference point to predict the probability of a favourable outcome (Lewicki *et al.*, 1998). Trust fosters hope and optimism, making favourable outcomes appear more likely, by increasing the perceived benefit and decreasing the perceived risk of a decision (Siegrist, 2000). Therefore, trust ultimately enables individuals to surpass perceived risks and accept the uncertainty and vulnerability needed to try new things and explore new possibilities.

While trust has been defined as a belief, behaviour and intention, these conceptualisations largely diminish the emotional aspects of trust (Jones, 1996). This study therefore

adopts the services marketing view of trust as an attitude, allowing for the consideration of its cognitive, emotional and behavioural components (Jones, 1996). The wide applicability of trust across disciplines and contexts has resulted in a proliferation of definitions which has led many scholars to argue that trust is polysemic and multi-dimensional (Mezger et al., 2020a). For example, Bachmann and Inkpen (2011) called for the need for scholars to abandon the idea that trust is a universal concept that remains the same at any time and across contexts. Therefore, while this study draws a trust definition from previous literature, we incorporate the context by defining trust as *a confident belief and feeling that energy system actors will meet positive expectations under conditions of unknown outcomes* (Russell-Bennett et al., 2023; Lewicki et al., 1998). Furthermore, consistent with the findings of Mezger and colleagues (2020a) research in the energy service sector, this study adopts the conceptualisation of trust with the dimensions of competence, openness, authenticity and responsibility as the dimensions of trust (see Table 1).

2.1.2 Conceptualisation of distrust

While trust amplifies the likelihood of favourable outcomes, distrust amplifies the likelihood of unfavourable outcomes and potential harm (Lewicki et al., 1998). Therefore, distrust often triggers a strong emotional response, not only preventing individuals from accepting the uncertainty and vulnerability required to try new things but also inducing a state of self-preservation (Moody et al., 2017; Lewicki et al., 1998). Feelings of fear, worry and anger ultimately result in the individual viewing others with scepticism, where even the positive intentions of another can be perceived as coming from a place of negative intent (Six and Latusek, 2023). Therefore, distrust can result in individuals undergoing excessive protective actions (Six and Latusek, 2023). While a certain level of distrust demonstrates a healthy society, pervasive distrust can be a catalyst for societal division and polarisation, deepening divides and hindering collective progress (Six and Latusek, 2023).

Despite trust suffering from a proliferation of definitions and conceptualisations, research on distrust is scarce and fragmented. Similarly to trust, studies point to distrust being polysemic and multi-dimensional and highlight the holistic benefits of viewing distrust as an attitude (Moody et al., 2017; Lewicki et al., 1998). This study therefore draws its definition of distrust from Deutsch (1958) and Lewicki and colleagues

Table 1 Dimensions of trust

Dimension	Definition
Competence	The energy actor's ability to deliver the desired performance
Openness	The energy actor's intent to provide an open information exchange
Authenticity	The energy actor's intent to keep its promises and deliver on its offers
Responsibility	The energy actor's intent to deliver environmentally beneficial products of the declared quality and keep its environmental promises

Source(s): Mezger et al. (2020a)

(1998) and incorporates the context defining it as *a confident belief and feeling that energy system actor's motivations are malicious and harmful*. Of note is the distinction between distrust and mistrust. Mistrust is used to describe situations where the belief about trust or distrust is not yet settled. Therefore, we have selected distrust because this construct is most frequently viewed as the opposite of trust (Six and Latusek, 2023). Furthermore, in the absence of context-specific dimensions of distrust, this study adopts the commonly recognised dimensions: incompetence, malevolence and deceit (Moody et al., 2017) (see Table 2).

2.1.3 Trust and distrust in services marketing

Nearly all human interactions and social relationships rely on trust, making it a widely studied construct across multiple disciplines. Foundational trust research stems primarily from sociology and psychology (Schilke et al., 2021), with social-exchange theory (Homans, 1961) providing a key foundation for the exploration of trust within the services marketing literature. The increasing focus on the dyadic relationship between businesses and their customers in the 1970s within traditional marketing domains ultimately led to the development of relationship marketing (Morgan and Hunt, 1994) – a domain of marketing that views marketing exchanges as an ongoing relationship rather than a simple transactional phenomenon (Möller and Halinen, 2000). Therefore, trust has become of increasing importance within services marketing and is now reflected in some of its most prominent frameworks including the commitment-trust theory of relationship marketing (Morgan and Hunt, 1994).

Relationship marketing frameworks have highlighted the role of trust in consumer decision-making, brand loyalty and long-term business relationships (Cropanzano and Mitchell, 2005). Furthermore, they show the strong effect trust has on purchases, customer retention and business recovery after a service failure (Choi and La, 2013). In terms of the study of distrust in the services marketing literature, there is extremely limited evidence with notable exceptions of Friend et al. (2010) who investigated the antecedents of distrust in retail settings and Darke and Ritchie (2007) who examined consumer distrust of advertising. With the rising of political polarisation, spread of misinformation and growing scepticism towards institutions (Edelman, 2023), it is likely that the criticality and relevance of trust research and even more so of distrust research within the services marketing domain will only increase. Surprisingly, there is no research that synthesises the possible relationships between trust and distrust in the service literature, with articles typically adopting one perspective without acknowledging the existence of alternative perspectives. There

Table 2 The dimensions of distrust

Dimension	Definition
Incompetence	The energy actor's lack of ability to perform a desired behaviour
Malevolence	The energy actor's intent to harm others
Deceit	The energy actor's intent to be dishonest and provide false information

Source(s): Moody et al. (2017)

is also no evidence in the practice of services that trust and distrust are viewed as anything other than on a continuum. Therefore, an understanding of the relationship between these two constructs is an important theoretical foundation for future research.

2.1.4 *The relationship between trust and distrust*

Within both the broader and services marketing literature, the relationship between trust and distrust lacks consensus with research typically adopting a singular perspective. Research typically falls into one of two schools of thought. The first and most prevailing approach views trust and distrust as binary constructs at opposite ends of a continuum where distrust is equivalent to a lack of trust and vice versa (Schoorman *et al.*, 2007). In contrast, the second approach positions trust and distrust as distinct mental states that can coexist or overlap (Six and Latusek, 2023). The “distinct” or independent view postulates that while trust and distrust are related, they are separable constructs with differing characteristics and determinants that can coexist in a relationship (Lewicki *et al.*, 1998). While this view has gained increasing support in recent years, the conceptualisation has origins in the early years of trust research (see Deutsch, 1958). In fact, the idea that positively and negatively valenced constructs such as trust, and distrust should be treated separately has been a dominant view in the wider psychology and attitude literature for over half a century. For example, prominent scholars such as Kahneman and Tversky (1979) and Cacioppo and Berntson (1994) argued that treating positive and negative valence constructs as part of a single continuum can obscure important differences and lead to flawed analyses and conclusions. Despite the debate between these two schools of thought in the broader literature, there is no agreement. In the services literature there is a complete absence of discussion about different schools of thought on the relationship between trust and distrust.

In addition to empirical evidence in the broader literature that trust and distrust load onto different factors (Kang and Park, 2017; McKnight *et al.*, 2004), studies have also suggested that trust and distrust may have different antecedents (Ou and Sia, 2010; Cho, 2006), which is further evidence of a distinct independent relationship. These results mimic early work exploring job satisfaction (Herzberg *et al.*, 1959) that found the factors contributing to employees’ positive and negative job attitudes were independent and not on a continuum. Within the satisfaction literature, factors that impact negative attitudes are known as hygiene factors as they address the basic needs of the environment (Herzberg *et al.*, 1959). Conversely factors that impact positive attitudes are known as motivating factors as they address individual’s need for growth and self-actualisation (Herzberg *et al.*, 1959). Subsequent literature has identified critical factors, which are those that impact both positive and negative attitudes (Cadotte and Turgeon, 1988). In addition, a 2010 functional magnetic resonance imaging study found, trust and distrust are largely found to activate different areas of the brain (Dimoka, 2010). While distrust was associated with the emotional areas of the brain such as the amygdala and insular cortex, trust was associated with the cognitive areas such as the anterior paracingulate (Dimoka, 2010). Expanding on these findings, studies in the field of cognitive psychology have found that trust and distrust encourage different types of information-

processing strategies. While trust elicits strategies that draw on similarities, distrust elicits strategies that draw on dissimilarities between new and existing knowledge and schemas (Posten and Mussweiler, 2013).

However, despite this growing evidence for an independent relationship between trust and distrust, there is conflicting evidence in the literature. For instance, while Moody and colleagues (2017) found support for the coexistence of trust and distrust, their results also suggested that trust and distrust still have opposite dimensions. Similarly, despite finding quantitative support for the separation of trust and distrust, qualitative interviews by Erickson and Biedenweg (2024) indicated that participants did not perceive trust and distrust to coexist at all levels of relationships. Furthermore, some scholars argue that evidence of independence is simply an artefact of method (Russell and Carroll, 1999). Therefore, despite the separation (or not) of positive and negative valence constructs such as trust and distrust being a fundamental aspect of psychometric principle (Watson and Clark, 1997), a consensus and understanding has yet to be reached.

2.1.5 *Trust and distrust in energy services*

Energy is a fundamental service where consumer trust and distrust are becoming increasingly important for sustaining the ongoing viability of the sector globally [Australian Energy Regulator (AER), 2022; Greenberg, 2014]. The transition from a centralised to a decentralised energy system has increased the need for collaborative and cooperative relationships between public and private energy actors as well as energy consumers [Energy Consumers Australia (ECA), 2021; International Energy Association, 2025]. For example, the energy service sector is advocating for the implementation of smart household energy products and programs such as demand-side-management as well as larger community projects such as solar and wind farms [Energy Consumers Australia (ECA), 2021]. Without a certain level of trust, it is unlikely that these initiatives will be successful (International Energy Association, 2025).

Despite the need for consumer trust in the energy service sector, the exploration of consumer behaviour and social structures that influence trust and engagement within the energy service sector has been largely ignored (Chadwick *et al.*, 2022; Sovacool, 2014). This is in part due to a focus on technical-mechanical factors while human factors are only of concern when considering possible injury, discomfort or misuse of equipment (Sovacool, 2014; Lutzenhiser and Shove, 1999). With consumers playing an increasingly active role in the energy service system, this approach is no longer effective. Instead, there is a need to adopt a behavioural approach that views the energy system as a combination of both critical resources and human social systems (Bedggood *et al.*, 2023). Thus, increasing trust and reducing distrust are important goals for achieving a reliable, affordable and sustainable energy service sector across countries (Australian Energy Regulator, 2022) and underpin the achievement of SDG 7.

2.2 **The conceptualisation of trust and distrust in the service literature**

Trust and distrust are conceptualised in multiple ways across the services literature (see Table 3). While most studies adopt a

Table 3 Approaches to trust and distrust in the service literature

Authors	Service context	Ecosystem level and actor	Focus	Implicit approach	Support for approach	Dimensions
Calnan and Sanford (2004)	Healthcare	Macro (system) and micro (health-care providers)	Trust	Continuum	Not tested	Unidimensional
Benamati et al. (2006)	Banking	Meso – online banks	Trust and distrust	Independent	Supported	Ability, benevolence and integrity
Cho (2006)	Retail	Meso – online vendor	Trust and distrust	Independent	Supported	Competence and benevolence
Friend et al. (2010)	Retail	Meso – Retailers	Trust and distrust	Continuum	Not tested	Credibility and benevolence
Patterson et al. (2010)	Retail	Micro – retail employees	Distrust	Continuum	Not tested	Unidimensional
Chang et al. (2013)	Healthcare	Micro – health care providers	Trust	Continuum	Not tested	Unidimensional
Krot and Rudawska (2016)	Healthcare	Macro (market), meso (institution) and micro (doctors)	Trust	Continuum	Not tested	Competence, benevolence and integrity
van Pinxteren et al. (2019)	Artificial intelligence	N/A – Technology	Trust	Continuum	Not tested	Unidimensional
Latif et al. (2021)	Education	Meso – University	Trust	Continuum	Not tested	Integrity and reliability
Griffith et al. (2021)	Healthcare	Macro – whole system	Trust and distrust	Independent	Not tested	Competence, integrity, benevolence, predictability and assurance
Alzaidi and Agag (2022)	Retail	Meso – online retailer	Trust	Continuum	Not tested	Competence, integrity and compassion

Source(s): Authors' own work

continuum approach, there is no explicit acknowledgement of the approach. Furthermore, while earlier work in the services marketing literature empirically tested different approaches to the relationship between trust and distrust, and found support for a distinction (Benamati et al., 2006; Cho, 2006), very little work has adopted or looked to further this understanding in recent years. While some papers take a unidimensional view of trust and distrust (see van Pinxteren et al., 2019; Chang et al., 2013), a multi-dimensional approach is more commonly adopted with dimensions representing competence and integrity being most prevalent (Alzaidi and Agag, 2022; Griffith et al., 2021). Examples of additional dimensions used are ability (Benamati et al., 2006), benevolence (Friend et al., 2010), predictability (Griffith et al., 2021) and assurance (Griffith et al., 2021). Therefore, a clear lack of consensus and understanding of trust and distrust in the services literature is evident, mirroring the confusion in the broader literature, highlighting the need to better understand the conceptualisation and relationship between these constructs.

2.3 Trust and distrust in actors across service ecosystems

Researching trust and distrust in whole systems which are fundamental to quality of life, such as energy services is complex due to the involvement of many actors. Prior literature has identified at least 60 actors in the energy system ecosystem ranging from public organisations, private companies and individual consumers (Russell-Bennett et al., 2023). A service ecosystem approach provides an organising framework to categorise these actors using three levels – macro, meso or micro (Beirão et al., 2017). Service ecosystems are defined as “relatively self-contained, self-adjusting systems of resource-integrating actors connected by shared institutional logics and mutual value creation through service exchange” (Vargo and Lusch, 2011, p. 15). Ecosystem frameworks acknowledge the interconnected nature of these systems and how a problem originating from one actor can quickly cascade to neighbouring actors (Ma, 2023). Therefore, to recognise whether a problem is localised, system-wide or the result of specific interconnected relationships, focus needs to be given to understanding if and how each component contributes to the problem (Ma, 2023).

While current whole-system or individual actor-only approaches have advantages in that they facilitate deep research, they also limit the ability to directly compare the relative impact of each actor on a particular issue or in a particular context (Ma, 2023). Our study therefore draws from micro-meso-macro frameworks (Dopfer et al., 2004; Beirão et al., 2017), by categorising and exploring trust and distrust in energy actors based on the level of the energy ecosystem in which they belong (see Actors at Each Level of the Energy Ecosystem):

- *Macro-level.*

The actors responsible for the structure of the system.

e.g. Policymakers, government, regulators and market operators:

- *Meso-level.*

Actors that are made up of complex other things (micro-level) that is an element in higher order things (macro-level).

e.g. Energy generators, energy developers, energy distributors, energy retailers, retrofitters and installers, electricians, consumer and environmental advocacy groups and research institutions:

- *Micro-level.*

Individual actors that are carriers of rules and the systems they organise.

e.g. Consumers (individual and household), neighbours/community and family and friends

Source(s): Adapted from Russell-Bennett et al. (2023)

2.3.1 Trust and distrust in the service ecosystem

Most studies that explore trust in a service setting either explore trust in one actor or at one level of the service ecosystem (see Table 3). Very little work has explored trust across multiple actors and multiple levels of a service ecosystem. In the rare examples of where this occurs, inconsistent results exist. For example, Krot and Rudawska (2016) found that trust in the macro-level in a healthcare service context has the largest impact on promoting trust across all other levels. In contrast, Calnan and Sanford (2004) identified micro-level actors in the healthcare service ecosystem as those most important for trust. However, some consistencies were found regarding the importance of dimensions of trust for micro-level actor with both studies identifying that trust in micro-level actors such as doctors, was most often equated to perceptions of their competence and skills in addressing

patient's needs. Neither of these studies examined distrust. Thus, there remains a need for a holistic study to examine trust and distrust across actors in all three levels of a service ecosystem.

3. Method

3.1 Systematic review of the literature

Given the purpose of this study is to explore the conceptualisations of trust and distrust across different levels of the service ecosystem in existing literature, an appropriate method is a systematic literature review. Systematic literature reviews offer a well-established methodology for examining empirical evidence across various disciplines and methods (Hulland and Houston, 2020; Sovacool *et al.*, 2018). These reviews attempt to collate all relevant evidence on a particular topic or research question to facilitate theory development, summarise large bodies of literature, address inconsistencies or uncover areas where more research is needed (Hulland and Houston, 2020). Compared to narrative literature reviews that simply synthesise evidence familiar to an author on a given topic or theme, systematic literature reviews use explicit and replicable research designs and steps that aim to reduce biases associated with convenience sampling (Hulland and Houston, 2020). The methods used to undertake this systematic literature review was derived from Chadwick and colleagues (2022) and Sovacool and colleagues (2018). The steps were (1) craft an explicit research question; (2) systematically search the available literature using defined search terms; (3) use explicit criteria for including or excluding studies; (4) determine and then execute a coding strategy or analytical protocol; and (5) analyse or synthesise the collected evidence. The corpus of literature was then analysed to answer both research questions.

3.2 Search parameters

Three major databases (Web of Science, Scopus and ProQuest) were used to search for relevant literature. The search was conducted in November 2024. Three key criteria for the papers were identified based on the main constructs, target population and setting that this paper is addressing (Sovacool *et al.*, 2018), these were: (1) trust/distrust as the main constructs; (2) energy consumers as the target population; and (3) the energy sector as the target setting. Synonyms and wildcard search terms were used for each of these criteria to ensure all relevant papers were pulled from each database. The final search string was as followed: "Trust OR Distrust OR Mistrust OR Competence OR Integrity OR Benevolence OR Confidence" AND "Consumer OR Customer OR End-User OR B2C OR Organisational OR Residential OR Household" AND "Energy OR Electricity OR "The Grid" OR Power AND (Energy OR Electricity)".

3.3 Inclusion and exclusion criteria

Inclusion and exclusion criteria were used to further screen out any irrelevant or unusable papers (Hulland and Houston, 2020; Sovacool *et al.*, 2018). Grey literature was excluded from the criteria due to its lack of consistent quality that matches the standard of peer-reviewed publications (Pappas and Williams, 2011). Only articles in English were included, however no date restriction was placed on the search. All inclusion and exclusion

criteria can be found in Table 4. Furthermore, the literature selection process can be found in Figure 1.

3.4 Content and thematic analysis

Content and thematic analysis were used to address the two research questions (Hulland and Houston, 2020; Sovacool *et al.*, 2018). The papers were coded, and the coding was used to systematically identify categories, themes and patterns in the research. In addition to coding for the country context, method and sample, each paper was coded for the trust and distrust relationship, dimensions, actors and service ecosystem level and trust and distrust antecedents. We followed the Gioia coding method (Gioia, 2021) and have included the coding results in the Web Appendix.

4. Findings

4.1 Sample characteristics

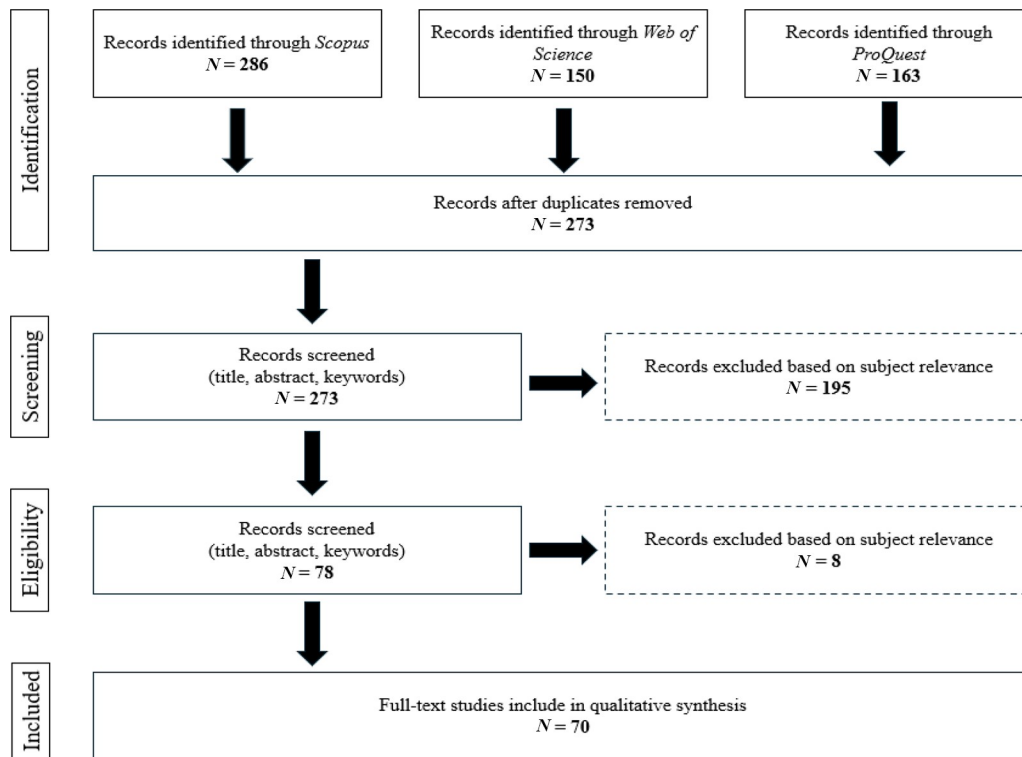
The number of articles that were included in the analysis was 70 (see Web Appendix for full list of all articles). While the earliest paper included in this review dates to 1979, 80% of the included papers were published in the last 10 years (from 2015), and 61% in the last five years (from 2020) showing the growing interest in consumer trust research in the energy context. Studies conducted in Europe were over-represented accounting for 59% of papers. Journal affiliations highlighted the dominance of techno-economic approaches. Less than 28% of papers were from social science-focused journals with the remaining 72% being evenly split between natural science, energy, business and economics. Quantitative (58%) approaches were most common, followed by qualitative (25%), mixed methods (9%) and conceptual (8%). This represents an expected distribution of study methods in energy research (Sovacool, 2014).

Actors at the meso-level of the energy ecosystem were most commonly the focus of trust research in the energy sector (see Table 5) with government and regulators the most common actors. One-third of papers explored non-actor-related topics, instead focusing on the sector as a whole (Ricci *et al.*, 2010), energy technology (Wasaya *et al.*, 2021) or consumers' disposition to trust (Volland, 2017) while micro-level actors were barely examined. The results of these studies were consistent, indicating that meso-level actors such as energy developers and providers have more consumer trust than macro-level actors (Government and Regulators) (Müller *et al.*, 2020).

Table 4 Inclusion and exclusion criteria

Criterion	Inclusion	Exclusion
Construct	Trust or distrust	Not trust or distrust
Population	Energy consumers	Not energy consumers
Setting	Energy sector	Not in the energy sector
Study type	Empirical and theoretical/ conceptual studies. Peer-reviewed	
Language	English	Any other language
Source(s): Authors' own work		

Figure 1 Literature search flow chart



Source: Authors

Table 5 Number of energy actors at each level of the service ecosystem

Trust actor/topic explored	No. of papers (%)
Macro-level	
Government and regulators	18 (28)
Meso-level	
Energy developers	15 (23)
Energy providers (retailers and distributors)	8 (13)
Technology and service providers	6 (9)
Total Meso-level	26 (40)
Micro-level	
Neighbours / community	8 (13)
Other	
Whole system perspective	11 (17)
Energy technology	5 (7)
Disposition to trust	5 (7)
Total other	21 (33)

Source(s): Authors' own work

4.2 The relationship between trust and distrust

The first RQ *How is trust and distrust conceptualised in a public service ecosystem?* was addressed by examining the dimensions and antecedents of trust and distrust as well as type of relationship approach (continuum or independent). The findings also identified 25 out of the 70 articles conceptualised trust as multi-dimensional and that the antecedents of trust and

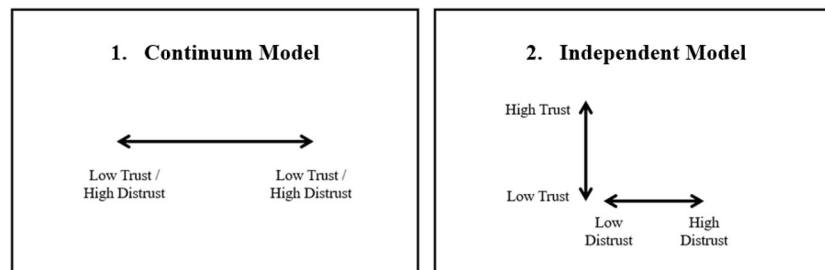
distrust differed. Furthermore, only 10 out of the 70 (14%) papers explicitly considered trust and distrust to be distinct constructs, highlighting the prominence of the continuum approach of trust and distrust. However, conceptualisations and definitions of trust were largely unclear, with 50% of papers failing to include a definition of trust. For a full list of the definitions of trust and distrust, see the Web Appendix.

4.2.1 Possible models of the relationship between trust and distrust

The findings reveal two potential models for the relationship between trust and distrust (see Figure 2). The first model reflects the continuum approach to trust and distrust in which distrust is simply seen as being a lack of trust and trust is a lack of distrust. The second model reflects the independent approach where trust and distrust are separate and distinct constructs that coexist and sit on separate spectrums. The continuum model poses that trust and distrust are opposite ends of the same spectrum and is consistent with some prior trust and distrust literature (Schoorman et al., 2007; Russell and Carroll, 1999). While the continuum approach was the most prevalent model implied in the literature, there was little explicit evidence to support the relationship with an absence of discriminant validity testing of the two constructs in a single study. This may be explained by no studies adopting the continuum approach actively seeking to test the relationship between trust and distrust.

Conversely the independent model, which poses that trust and distrust are separable constructs that exist on different spectrums was represented in small number of papers (10). However, of these

Figure 2 Models of trust and distrust



Source: Authors

papers, only several sought to test the relationship between trust and distrust (3), possibly as a counteraction to the prevailing view in the literature of the continuum approach. All of these papers found evidence for the independent model. For example, [Offermann-van Heek et al. \(2018\)](#) and [Horne and colleagues \(2022\)](#) found that trust and distrust loaded onto separate factors. These studies postulated that these results “are consistent with research arguing that trust and distrust may have different antecedents” ([Horne et al., 2022](#), p. 5). While this number of papers is small, there is indication that trust and distrust may be conceptually and empirically distinct.

4.2.2 Dimensions of trust and distrust

Competence was the most prevalent trust dimension, followed by integrity, benevolence and care (see [Table 6](#)). While the papers adopted 13 different dimensions of trust, competence was the only dimension that reflected actor ability and expertise while all other dimensions were more reflective of perceived morality. [Mezger and colleagues \(2020a, b\)](#) were the only papers that adopted dimensions of trust specific to the energy sector. However, apart from responsibility, the dimensions authenticity and openness are largely reflected across the other 10 morality focused dimensions. Despite 10 papers viewing distrust as independent from trust, only two papers ([Utz et al., 2023](#); [Offermann-van Heek et al., 2018](#)) assigned dimensions to distrust. Furthermore, while [Offermann-van Heek et al. \(2018\)](#) adopted distrust-specific dimensions, [Utz and colleagues \(2023\)](#) dimensions of distrust were simply antonyms of the trust dimensions they adopted. A total of seven distrust dimensions were used in these two studies with no common dimensions.

Therefore, while there is some consensus that competence, integrity, benevolence and care are core dimensions of trust in the energy service ecosystem, there is no empirical evidence that examines all 13 dimensions in a single study. Given only two of the 70 papers contained dimensions of distrust, it is unsurprising that there was no consensus. This variation in the conceptualisation of trust and distrust in the same context thus creates difficulty for measurement and the design of trust interventions. It ultimately hinders researcher’s ability to compare studies, identify patterns and build on existing knowledge and theoretical frameworks. Therefore, highlighting the need for more unified approaches.

4.2.3 Differences in the antecedents of trust and distrust

To examine the potential similarity and difference between trust and distrust, antecedent factors were examined. Differences

were found between the factors that impact trust and distrust. Trust was found to be primarily driven by factors related to participation and empowerment ([Becker et al., 2019](#)), values ([Offermann-van Heek et al., 2018](#)) and autonomy ([Chinomona and Sandada, 2014](#)) while distrust was driven by factors relating to information quality ([Utz et al., 2023](#)), equity ([Horne et al., 2022](#)) as well as structures and power ([Horne et al., 2021](#)) (see [Table 7](#)). This evidence indicates that the factors that increase trust are not the same factors that decrease distrust ([Horne et al., 2022](#); [Offermann-van Heek et al., 2018](#)) and provides evidence for an independent relationship. Parallels can be drawn between these findings and the satisfaction and dissatisfaction literatures identification of hygiene and motivating factors ([Cadotte and Turgeon, 1988](#); [Herzberg et al., 1959](#)). Information quality, equity and structures and power can largely be considered factors that allow energy consumers to participate effectively within the energy system. For example, [Utz et al. \(2023, p. 9\)](#) found that “Poor communication and insufficient verifiability were the root cause of customer skepticism”. Conversely participation, values and choice align more closely with intrinsic motivations, fostering deeper engagement with the energy system. For example, [Utz et al. \(2023, p. 7\)](#) indicated that “affording them (consumers) the opportunity to actively participate in their electricity supplier’s sustainability efforts can improve the trust between supplier and customer”.

However, there were inconsistencies with antecedent factors such as customer service, cost and ability to deal with adverse events appearing common to both trust and distrust. For example, [Horne and colleagues \(2022, p. 5\)](#) identified that “costs and (the ability to manage) wildfires both reduce distrust and also increase trust”. Furthermore, while [Horne and colleagues \(2022\)](#) found that “customer service reduces distrust but does not produce trust”, several papers identified customer service as a key builder of trust ([Offermann-van Heek et al., 2018](#); [Stenner et al., 2017](#); [Chinomona and Sandada, 2014](#)). These variances between studies may be due to the differences in methodologies or a focus on different aspects of customer service. Alternatively, they may suggest that these are what previous literature has defined as critical factors – those factors that impact both positive and negative attitudes. Thus, while there is evidence that trust and distrust are distinct constructs due to different antecedent factors, there are some factors in common.

Table 6 Dimensions of trust and distrust in the energy literature

Trust dimensions	Total studies	Authors
Competence	23	Ash (2010); Becker <i>et al.</i> (2019); Bronfman <i>et al.</i> (2015); Bronfman <i>et al.</i> (2012); Chinomona and Sandada (2014); Ding <i>et al.</i> (2021); Familia and Horne (2022); Gordon <i>et al.</i> (2023); Greenberg (2014); Ho <i>et al.</i> , 2019; Ibáñez <i>et al.</i> (2006); Lehtonen, M., and de Carlo, 2019; Liu <i>et al.</i> (2022); Mezger <i>et al.</i> (2020a); Mumford and Gray (2010); Offerman-van Heek <i>et al.</i> (2018); Siitonen <i>et al.</i> (2024); Stenner <i>et al.</i> (2017); Terwel <i>et al.</i> (2009); Utz <i>et al.</i> (2023); van Prooijen (2019); Van de Velde <i>et al.</i> (2011)
Integrity	10	Bronfman <i>et al.</i> (2015); Bronfman <i>et al.</i> (2012); Gordon <i>et al.</i> (2023); Liu <i>et al.</i> (2022); Offerman-van Heek <i>et al.</i> (2018); Siitonen <i>et al.</i> (2024); Stenner <i>et al.</i> (2017); Terwel <i>et al.</i> (2009); Utz <i>et al.</i> (2023); van Prooijen (2019)
Benevolence	5	Chinomona and Sandada (2014); Ding <i>et al.</i> (2021); Guo <i>et al.</i> (2017); Utz <i>et al.</i> (2023)
Care	5	Ash (2010); Becker <i>et al.</i> (2019); Ibáñez <i>et al.</i> (2006); Mumford and Gray (2010); Van de Velde <i>et al.</i> (2011)
Honesty	4	Chinomona and Sandada (2014); Guo <i>et al.</i> (2017); Van de Velde <i>et al.</i> (2011)
Reliability	3	Ding <i>et al.</i> , 2022; Chinomona and Sandada (2014); Guo <i>et al.</i> (2017)
Authenticity	2	Mezger <i>et al.</i> (2020a); Mezger <i>et al.</i> (2020b)
Openness	2	Mezger <i>et al.</i> (2020a); Mezger <i>et al.</i> (2020b)
Responsibility	2	Mezger <i>et al.</i> (2020a); Mezger <i>et al.</i> (2020b)
Sincerity	2	Lehtonen, M., and de Carlo, 2019
Values	2	Greenberg (2014); Ho <i>et al.</i> , 2019
Intent	1	Familia and Horne (2022)
Predictability	1	Ash (2010)
Distrust dimensions	Total Studies	Authors
Incompetence	1	Utz <i>et al.</i> (2023)
Malevolence	1	Utz <i>et al.</i> (2023)
Deceit	1	Utz <i>et al.</i> (2023)
Deception	1	Offerman-van Heek <i>et al.</i> (2018)
Customer orientation	1	Offerman-van Heek <i>et al.</i> (2018)
Working conditions	1	Offerman-van Heek <i>et al.</i> (2018)
Image	1	Offerman-van Heek <i>et al.</i> (2018)

Source(s): Authors' own work

Table 7 Antecedents of trust and distrust in the energy service ecosystem

Distrust antecedents	Trust antecedents
<p>1. Information quality Participants discussed how complexity meant that they could not understand wholesale prices, energy bills and tariff structures, contributing to an overall lack of transparency and adding to distrust (Becker <i>et al.</i>, 2019) Poor communication and insufficient verifiability were the root cause of customer scepticism (Utz <i>et al.</i>, 2023)</p>	<p>1. Participation E.g. "affording them (consumers) the opportunity to actively participate in their electricity supplier's sustainability efforts can improve the trust between supplier and customer" (Utz <i>et al.</i>, 2023)</p> <p>Allowing impacted citizens and organisations to have a say in decision-making was found to increase consumer trust (Becker <i>et al.</i>, 2019)</p>
<p>2. Equity The interviews suggest that much of participants' distrust and resentment stems from feelings that utilities have an unfair monopoly advantage over consumers, which they use in a self-interested way (Horne <i>et al.</i>, 2022) Some argued however that the public was already paying disproportionately because, in the end, all means of paying come from the public in the form of taxes or energy bills. This may be considered one source of distrust, because members of the public felt they were fulfilling their responsibility while institutional actors were not (Becker <i>et al.</i>, 2019)</p>	<p>2. Values E.g. "The third trust dimension, moral values, focused on social commitment and the compliance with values" (Offerman-van Heek <i>et al.</i>, 2018)</p> <p>"As a result, the supplier and its customers have a common goal, which is an essential dimension in the creation of cognition-based trust" (Utz <i>et al.</i>, 2023)</p>
<p>3. Structures and power The distrust was based on a fundamental disagreement with the underlying motives and resultant organising structure (Becker <i>et al.</i>, 2019) Distrust was reflected in participants' concerns about market power (Horne <i>et al.</i>, 2021)</p>	<p>3. Autonomy Loyalty programs can improve customer trust by increasing their agency (Utz <i>et al.</i>, 2023)</p> <p>"Customer's trust was enhanced by the service provider's . . . and customisation" (Chinomona and Sandada, 2014)</p>

Source(s): Authors' own work

4.3 Trust, distrust and their dimensions across the energy ecosystem

The second RQ *How does trust, distrust and the relative importance of the dimensions vary across actors in a public service ecosystem?* was addressed by mapping the dimensions with the actors at different levels of the energy service ecosystem. The results indicated that while both trust and distrust stem from different levels of an ecosystem, distrust primarily flows from the top-down from influential macro and meso-level actors. Trust, however, is more likely to build from the bottom-up, emerging through positive interactions at the micro-level. Furthermore, the results found that the relative importance of the dimensions of trust and distrust do differ across ecosystem actors (see Table 8). These results suggest that the polysemic nature of trust and distrust may extend to their dimensions. Therefore, researchers need to be cautious about attributing equal weight to the dimensions of trust and distrust without considering the specific contextual factors involved.

4.3.1 Trust is generated through positive relationships with individuals at all levels of the ecosystem

The findings suggest that “trust tends to be personalised while distrust concerns institutions” (Grossmann *et al.*, 2021, p. 10). Trust in energy actors was consistently found to stem from positive experiences with individual people such as representatives from energy companies (Grossmann *et al.*, 2021), local government (Greenberg, 2014) or neighbours and family (de Wilde, 2019), signalling that consumers have relatively high levels of trust in micro-level actors (Becker *et al.*, 2019). While a consumer may not have trust in an energy company or institution at large, this does not limit their ability to have trust in people representing these entities. For example, Grossman found that trust-building instances often involved “a single person that proved to be trustworthy and thus made a difference in a household’s contact with the institution” (Grossmann *et al.*, 2021, p. 7) and that the trust gained during these interactions can help grow trust in the organisations they represent as it “enables an understanding of the perspective of the institution” (Grossmann *et al.*, 2021, p. 8).

Furthermore, the experience and beliefs of micro-level actors such as family and neighbours were found to have a strong impact on whether an individual trusted energy professionals such as retrofitters and solar installers (de Wilde, 2019). One study found that over 55% of participants verified the advice given to them by energy professionals with neighbours as their neighbours “do not have any interest in painting a rosier picture about their experience” while professionals are “motivated by profit” (de Wilde, 2019, p. 142). indicating the key role individual and micro-level actors play in building trust.

Table 8 Key trust and distrust dimensions for actors across the ecosystem

Ecosystem level	Key trust dimension	Key distrust dimension
Macro	Competence	Incompetence and deceit
Meso	Openness and authenticity	Malevolence and deceit
Micro	Authenticity	Deceit

Source(s): Authors’ own work

4.3.2 Distrust is generated through complex structures and processes at the macro and meso-levels of the ecosystem

While trust was shown to be primarily built through individuals, distrust was strongly associated with complex structures and processes at the meso and macro-levels. For example, Lehtonen and de Carlo (2019, p. 5), found that “distrust had an ideological dimension, directed towards ‘big corporations’ and privatisation”. Extending on these findings, several papers argued that the attribution of distrust towards macro and meso actors is due to how these entities are structured. For example, Grossmann *et al.* (2021, p. 3) reasoned that “democratic setups are more vulnerable to fostering distrust, due to the high levels of complexity that democratic processes involve”. The complexities and sheer scale of the institutions involved in energy foster distrust as it separates these actors from everyday society, making them “appear alien to consumers” due to large disparities in both power and knowledge (Mumford and Gray, 2010, p. 2666). For example, the privatisation and increasing involvement of private companies in the energy markets has made the line between the roles of government and industry unclear leading consumers to question whether energy decisions are being made in society’s best interests or the best interests of industry and their shareholders (Gordon *et al.*, 2023; Mumford and Gray, 2010). The blurriness has led to perceptions of collusion and greed which ultimately leads to distrust spreading across the system (Horne *et al.*, 2021; Becker *et al.*, 2019).

Furthermore, the nature of these structures often results in opaque, inflexible and slow processes that make consumers perceive these entities as malevolent and uncaring leading to distrust (Becker *et al.*, 2019). For example, consumers eligible for energy cost support payments were found to be particularly distrustful due to their experiences navigating slow, bureaucratic processes while facing hardships (Lehtonen and de Carlo, 2019; Grossmann *et al.*, 2021), therefore, highlighting the strong impact meso and macro-level actors have on consumer distrust.

4.3.3 The relative importance of each sub-dimension of trust and distrust differs across macro and meso ecosystem levels

While showing competence, openness, authenticity and responsibility is important for fostering trust across all energy actors (Mezger *et al.*, 2020a), the literature suggests that the relative importance of each dimension differs across actors. Competence was found to be the most influential sub-dimension of trust for macro-level actors such as the Government and Regulators.

In contrast, for meso-level actors, dimensions of trust related to integrity and honesty – therefore reflecting Mezger *et al.*’s (2020a) authenticity and openness trust dimensions – were found to be most strongly associated with overall trust and prosocial energy outcomes. Finally, authenticity was seen to be the key dimension of trust for micro-level actors.

No papers included in this review directly compared the importance of different dimensions of distrust, indicating an avenue for future research. However, clear trends emerged in the literature regarding which actors were seen to be particularly incompetent, malevolent and deceitful. Perceptions of incompetence appeared to stem from macro-level actors. Perceptions of malevolence on the other hand were described towards meso-level actors such as energy retailers

and energy developers. Perceptions of deceit stemmed macro, meso and micro-level actors.

4.4 Trust and distrust framework for the energy ecosystem

Together the findings of these RQs provided the basis for the development of a framework that can be used to guide trust-building and distrust-reducing strategies across the energy ecosystem (see Figure 3). While these results may be applicable to other public service context, further research is needed to confirm this. The trust and distrust framework for the energy ecosystem starts by highlighting the differences between trust and distrust antecedents before describing how trust and distrust differs across the three levels of the ecosystem. Specifically, the arrows represent that while trust appears to flow upwards from micro-level actors, distrust has a downward trajectory that diffuses from the top-down. Furthermore, the framework shows how the relative importance of the dimensions of trust differs across the three levels of the energy ecosystem. This framework can help energy actors across the ecosystem develop targeted approaches to building trust and reducing distrust.

5. Discussion

The purpose of this research was to explore the conceptualisations of trust and distrust across different levels of a major public service ecosystem using the transformative context of energy. This purpose was achieved by addressing two RQs. RQ1 was addressed by finding that there are two potential models of the relationship between trust and distrust – the continuum model and the independent model. The findings also identified a lack of consensus about the dimensionality of trust and distrust, even within the same context. Furthermore, RQ2 was addressed by finding that trust tends to result from interactions with individual people across the ecosystem whereas distrust was found to stem from actors at the meso and macro-levels. Furthermore, we found that the relative importance of the dimensions of trust differ across each level of the ecosystem While this study uses a single public service context to investigate the research problem, the findings are relevant to other public service contexts that are complex and

fundamental to life on earth in a changing world where trust in the system matters. Examples include education, healthcare and public transport. The following section outlines the theoretical contributions and practical implications of these results, which also serve as guiding propositions for future research to explore their applicability across similar public service contexts.

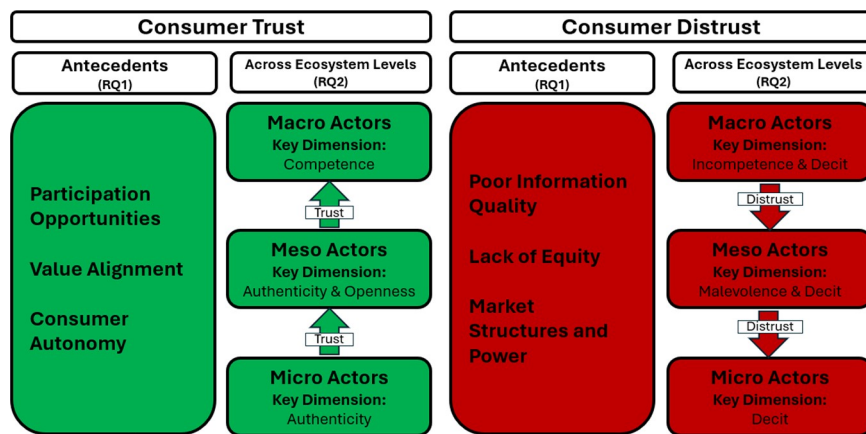
This research demonstrates that if we are to reclaim trust (Rosenbaum and Heinonen, 2025) and address the special issue call to develop new models to help and enable service organisations to design and deliver services needed in this changing world, then we need to carefully examine the foundational conceptualisation of our service constructs. The following section outlines the theoretical contributions and practical implications of these results, which also serve as guiding propositions for future research to explore their applicability in similar public service contexts. It concludes by highlighting the study limitations and suggestions for further research.

5.1 Theoretical contribution

5.1.1 There are conceptual differences between consumer trust and distrust in a service context with little consensus

The first theoretical contribution identifies the conceptual differences between trust and distrust in a public service ecosystem. This study is the first to directly compare and explore the differences between trust and distrust in a public service context. In the service literature to date, the dominant approach to trust and distrust is to regard them as opposite ends of the same construct (van Pinxteren et al., 2019; Chang et al., 2013; Schoorman et al., 2007), with few researchers identifying conceptual distinction (Cho, 2006). This research is the first to look more closely at how and if consumer trust and distrust vary across public services ecosystems such as energy. While this study identified that trust and distrust primarily stem from different actors with different antecedent factors (Horne et al., 2021; Offermann-van Heek et al., 2018), the prominence of the continuum model cannot be ignored. The identification of two potential models with different relationships highlights the conflict in the literature. Furthermore, while there was evidence to support the independent model, the small number of studies that have explored this relationship continues to raise questions regarding which model most accurately reflects

Figure 3 The trust and distrust framework for the energy ecosystem



Source: Authors

the relationship between trust and distrust. Therefore, as the relationship between and conceptualisation of these constructs is central to psychometric theory, we argue the urgent need for further work to clarify and unify these conceptualisations.

Evidence for the independent model comes from findings that demonstrate trust and distrust have empirically distinct factors, and that while trust stems from individuals, distrust stems from complex structures at the meso and macro-levels (Horne *et al.*, 2021; Offermann-van Heek *et al.*, 2018). These findings suggest that entities that are closer with and are similar to consumers have a greater capacity to build trust, while entities that are more distant and dissimilar to consumers are more susceptible to eliciting distrust. These findings align with those from Calnan and Sanford (2004) who identified the key role micro-level actors play in building trust in the health care ecosystem. Furthermore, while they are contrary to Krot and Rudawska (2016), it is important to note that these studies did not consider distrust separately, meaning that differences may be due to their results accounting for distrust. These results extend the psychological literature suggesting that not only do conditions of trust elicit perceptions of similarity (Posten and Mussweiler, 2013), but similarity may conversely help elicit trust. In addition, while the psychological literature found that conditions of distrust elicit the perception of differences, it may also be the case that dissimilarities increase the likelihood of distrust formation (Posten and Mussweiler, 2013).

Furthermore, this study found that the factors that impact distrust relate more to the environment and basic needs of the environment (e.g. structures and power, equity and information quality) while the factors that impact trust relate to individuals' intrinsic needs and self-actualisation (participation and empowerment, values and choice). However, some factors such as customer service, cost and ability to handle adverse events were found to impact both trust and distrust. This closely mirrors Herzberg and colleagues' (1959) and others (Cadotte and Turgeon, 1988) identification of hygiene, motivating and critical factors. Theoretically this suggests that these models can be expanded beyond the job satisfaction/dissatisfaction literature to other contexts and constructs such as trust and distrust.

5.1.2 Trust and distrust vary for actors across the three levels of the energy ecosystem

The second theoretical contribution highlights how trust and distrust vary across macro, meso and micro-level actors in a public service ecosystem. This study is the first to adopt an ecosystem perspective for trust or distrust, and one of the first to highlight that the relative importance of the dimensions of trust varies across actors. These findings suggest that researchers need to be cautious about attributing equal weight to the dimensions of trust without considering the specific contextual factors involved. Therefore, these results support Bachmann and Inkpen (2011) call to abandon approaches that consider trust to be a universal concept that remains the same at any time and across contexts. Specifically, the findings that perceptions of competence are more important for macro-level actors, while authenticity is more important for meso-level actors suggests that consumers place greater value on the ability and expertise of entities whose role is to lead and regulate.

However, for entities whose primary role is to distribute goods and services to consumers, perceptions of good intent are held in higher regard. However, the finding that authenticity is most important for the micro-level energy actors contradicts with previous work that found for micro-level actors in the health sector competence was most important (Krot and Rudawska, 2016; Calnan and Sanford, 2004). This contradiction may reflect that when safety and health are at stake as within the health care system, competence will always remain the top priority of the consumer. While the limited number of studies on distrust made it difficult to fully explore the relative importance of the dimensions of distrust across a public service ecosystem, the findings indicate that incompetence and deceit are most attributed to macro-level actors while malevolence and deceit are most attributed to meso-level actors. Malevolence indicates intent (Moody *et al.*, 2017) and thus perceived intent appears to be important for distrust. Theoretically, these results help explain divergent findings within the service literature. While some literature has pointed to dimensions relating to intent being the most important for trust (Connelly *et al.*, 2018), others have instead indicated that competence is most important (Lee, 2004). This study highlights that it may not be the case that one dimension is more important than the other generally, but that the importance of each dimensions differ depending on what actor is being explored. Specifically, these results indicate that while meso-level practitioners in the energy sector should focus on increasing their perceived openness and authenticity, macro-level practitioners should put their focus on strategies that increase consumer perception of their competence.

5.2 Managerial implications

5.2.1 Avoid conflating trust and distrust

Practically, these findings suggest that managers and policy makers need to be cautious in how they attribute trust. Indication of high consumer trust may not necessarily mean that consumer distrust is low (Horne *et al.*, 2021). Therefore, to get a complete picture of the processes at play, managers should consider measuring distrust separately from trust. Furthermore, they need to consider whether implemented strategies target trust as well as distrust as the self-perpetuating cycle of distrust could result in the reduced efficacy of trust strategies (Mumford and Gray, 2010). Specifically, practitioners need to ensure that implemented strategies target both the basic needs of the environment and intrinsic factors that relate to self-actualisation (Herzberg *et al.*, 1959). While it may be easier for actors to implement strategies that increase consumer participation and choice, these strategies are unlikely to be able to address the deeper issues of distrust that come from consumers inability to navigate and feel like the sector is equitable. Furthermore, the finding that trust primarily stems from similarity suggest that energy actors need to focus on improving their interpersonal skills of their employees who have direct contact with consumers and reducing the perception of their organisations being distant and alien.

5.2.2 Different trust-building and distrust-reducing strategies are needed at each level of the ecosystem

Furthermore, the finding that the relative importance of the dimensions of trust and distrust differ across the levels of the

ecosystem suggests that managers and policy makers can increase the efficacy of trust-building strategies by ensuring these strategies target the dimension of trust or distrust that is most important for the level of actor they are working with. This is reflected in the fact that the effectiveness of trust-building and distrust-reducing strategies are likely to differ across actors. For example, strategies that aim to increase perceptions of competence are likely to have a greater impact in improving trust at the macro as opposed to the micro-level (Van de Velde *et al.*, 2011). However, as is suggested by the findings in healthcare systems (Krot and Rudawska, 2016; Calnan and Sanford, 2004), if the actor directly impacts the safety or health of the consumer, ensuring competence is of the utmost importance.

Furthermore, the identification that trust in the service ecosystem primarily flows upwards from micro-level actors while distrust primarily flows downwards from macro and meso-level actors has implications for the increase in public-private partnerships and citizen participation. For new actors entering the system – such as service providers, start-ups or local initiatives – this dynamic suggests they may be well positioned to build trust through direct, transparent, and values-aligned engagement with consumers. However, they need to also be aware that they may inherit distrust directed at the actors at the top of the system. This underscores the need for new actors to not only foster positive interpersonal relationships but also actively differentiate themselves from distrusted institutional structures to avoid being seen as part of a distrusted system.

5.3 Limitations and future research

There are three key limitations that provide opportunities for further research in services marketing. Firstly, systematic literature reviews aim to compare and contrast the results of historical studies. While these studies may use the same terms and labels to describe a construct, they may also conceptualise or measure this construct differently. Given the lack of historical studies that explored consumer distrust as a separate

construct from trust as well as the lack of studies on micro-level actors the findings should be treated with caution. Further research is needed that examines both trust and distrust in a holistic study to empirically validate the relationship between trust and distrust and the dimensions. Moreover, the lack of studies that explore distrust in its own regard, highlights an important avenue for future research. Even authors that take the continuum view of trust and distrust would benefit from a greater understanding of the impacts and drivers of distrust. It further highlights that new studies are needed to develop measurement instruments for trust and distrust in a services ecosystem. Secondly, this study uses a single public service ecosystem context, energy services. Further research should be done to examine trust and distrust in other public services such as healthcare, education and public transport. Thirdly, this study did not seek to explain the conflicting evidence in the literature and identify potential boundary conditions for when trust and distrust may coexist and when it may not. Further research is needed to examine this apparent paradox.

Furthermore, the growing evidence that trust and distrust are not simply antonyms raises questions around the validity of other key assumptions and opens the door for further evaluations of their interplay and dynamics. Future research is therefore needed to explore the mechanisms underlying the interplay of trust and distrust, and how they work together to impact consumer decision-making. We outline some potential avenues in Table 9.

Notably, one classic assumption is that trust is inherently good, while distrust is inherently bad. However, the potential coexistence of these attitudes may suggest a less dichotomous situation, where both trust and distrust have positive and negative consequences and distinct adaptive roles. What these consequences are for both consumers and service actors remains underexplored and presents a valuable avenue for future inquiry. In the same vein, the exploration of whether an “ideal” level of trust and distrust exists for a healthy public service ecosystem could provide insights for managing consumer relationships and improving the resilience of these systems.

Table 9 Potential avenues for future research

Finding	Potential research questions
There is a lack of research that explores distrust in its own regard	<ul style="list-style-type: none"> • How does distrust function differently from trust in shaping beliefs, emotions, and behaviours? • Are there contexts where distrust serves a protective or functional role, rather than being purely detrimental?
There is conflicting evidence regarding the relationship between consumer trust and distrust	<ul style="list-style-type: none"> • Is there a universal relationship between trust and distrust or are there contextual boundaries? • What mechanisms could explain the co-existence of trust and distrust?
There are conceptual differences between consumer trust and distrust in a service context with little consensus	<ul style="list-style-type: none"> • How does the interplay between trust and distrust impact consumer behaviour? • How should trust and distrust be measured to account for any conceptual differences between them?
Trust and distrust vary for actors across the three levels of the energy ecosystem	<ul style="list-style-type: none"> • Does trust and distrust in different service levels/actors influence distinct consumer behaviours within the same service ecosystem? • How does trust and distrust differ across different services ecosystems (e.g. energy vs healthcare vs education)?
Different trust-building and distrust-reducing strategies are needed at each level of the ecosystem	<ul style="list-style-type: none"> • In what ways can service ecosystems be structured to foster trust while appropriately managing distrust across ecosystem levels? • How do service outcomes vary across different levels of consumer trust and distrust?

Source(s): Authors’ own work

The results of this study raise further questions around the interrelationship between trust and distrust across different actors and objects (e.g. dispositional, self and in technology). Few studies have examined multiple actors or objects of trust and distrust, providing an opportunity for future research to further examine the links between and the extent to which trust and distrust diffuses across service ecosystems. Furthermore, much could be gained from comparative studies that examine the predictive power of trust and distrust across different actors or objects. For example, does trust or distrust at the macro-level of a services ecosystem predict different behaviour than trust or distrust in micro-level actors or related technologies? Answering these questions could help service actors anticipate consumer behaviour and better understand their influence within their service ecosystem. This, in turn, can support the development of more trusted systems capable of mobilising the public support and collaboration needed to effectively deliver and implement the services and policies required to achieve the SDGs. Overall, this study underscores the importance of revisiting and empirically testing classic assumptions to support the development of robust, context-sensitive models and frameworks.

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Supplementary material

The supplementary material for this article can be found online.

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