

Effectiveness in Governance Networks -

The Role of Shared Identity as a unifying concept

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Summary

The central argument presented in this research is that many factors that contribute to effective, collaborative working in multi-sectoral, multi-organisational governance networks share a common conceptual foundation with those that can produce a shared group identity. The novelty of the approach lies in introducing shared identity as a mediating concept to potentially clarify and simplify our understanding of the relational processes in these networks by collapsing certain behaviours into the concept of shared identity. By so doing, future researchers and practitioners would have a more explicit foundation on which to build and develop collaborative relationships across sectors and organisations to achieve governance objectives.

Methodology

Seeking to contribute to generalisable knowledge by systematically comparing multiple cases, this study takes a multi-method approach using subjective, network-level measures and objective, community-level indicators of effectiveness. Following a comprehensive literature review, a research model was developed to guide data collection and test the proposed theoretical development. A sample of 22 governance networks was purposively selected, and the data was triangulated using quantitative (survey) and qualitative (interview) data. QCA was used to identify the necessary and sufficient conditions for shared identity and then for subjective and objective effectiveness separately. Having derived the QCA solutions, the interview data on ten specifically selected cases was reviewed to explore the existence of a causal mechanism.

Findings

The most consistent pattern discernible from the data is that mutual support and shared goals are important conditions in the networks considered effective by their members. From this, we can surmise that a commitment to the shared goals of the group leads to other positive behaviours, which makes some conditions redundant in the development of a shared identity. If an individual member is committed to the shared goals, perhaps they do not need agreed norms to regulate their behaviour, or they do not need every member to contribute to the meetings, because the collective sharing of goals, along with the feeling of mutual support between members, can engender a feeling of belonging to a collective that has some importance for them.

leading ultimately to the development of a more parsimonious model of effectiveness in governance networks.

Contributions

The study goes beyond the existing literature by expanding and refining our understanding of collaboration in governance networks. It makes several contributions to the research field.

Through its rigorous and systematic approach to comparing a sample of 22 cases, using quantitative and qualitative methods, it achieves both breadth and depth, while refining and presenting a more parsimonious model for future practitioners. By developing and testing a new scale to measure shared identity in the context of governance network, it offers a tool that, with additional validation, could support future evaluations of governance networks. Finally, by increasing our understanding of the mechanisms in operation, linking shared identity to effectiveness, it offers future network managers an approach that simplifies the task of achieving goals in an inter-organisational, multi-sectoral setting.

Abstract

This study aims to evaluate the relevance of shared identity as a concept linking collaborative behaviours to effectiveness in governance networks. It seeks to refine and enhance our understanding of the essential ingredients of effective collaboration and to explore the existence of a mechanism that drives behaviours towards greater effectiveness.

Qualitative and quantitative data from 22 Irish local authority-based governance networks were used in this comparative case study. The survey data were analysed using Qualitative Comparative Analysis (QCA) techniques. These techniques allow the researcher to take a configurational approach to exploring the complexity and nuances of interpersonal interactions in group settings using subjective and objective measures. The existence of an effectiveness mechanism was explored using interview data.

The study found that the key factors in producing a shared identity are shared goals, trust and mutual support. It also found that, while the participants considered shared identity to be necessary for effectiveness, this was not borne out by objective measures using local authority data.

The study's shared identity mechanism comprises behaviours, understanding and emotional connection. All three are to be seen in typical effective groups while none of the three is generally present in groups not considered effective. The message for practitioners, therefore, is to pay attention to behaviours and other factors that build positive feelings towards both the goals and other members.

No evidence linking subjective and objective effectiveness was found in this study, and this may be an area that warrants further exploration.

1 Introduction

1.1 Background

Governments and societies currently face many new challenges and problems that transcend the boundaries of public policy and administrative structures in contested areas, such as the management of scarce natural resources (Schruijer, 2020) the development of responses to climate change (Newig, Günther and Pahl-Wostl, 2010; Kalesnikaite, 2019) or the production of time-sensitive responses to disasters or crises (Guo and Kapucu, 2015; Howes *et al.*, 2015). These complex problems require public agencies to find solutions that involve collaboration rather than hierarchy or market solutions and to produce innovative responses that balance the needs of different stakeholders, crossing organisational and sectoral boundaries. To address these problems, working groups, networks, and partnerships have been established on the assumption that the joint actions of the relevant stakeholders, service providers, and policymakers will ensure that clients' needs are met more cost-effectively, efficiently, or innovatively. However, despite the intuitive appeal of this assumption and the decades of research into this governance mechanism, many policymakers and practitioners still lack sufficient evidence that the administrative effort and costs associated with subverting bureaucratic norms to work across organisational and sectoral boundaries are sufficiently warranted.

Over the course of more than a decade working for a national organisation responsible for the roll-out of the WHO (World Health Organization) Age Friendly programme in Ireland, I became aware of the challenges experienced by those tasked with establishing and guiding cross-sectoral local networks. For the public managers, hierarchical approaches to the management of these groups were incongruous and unacceptable to many of the group's members, while for many of the non-profit sector organisations, the challenge was to develop collaborative relationships where competition for scarce resources was more typical. As they became established, it was obvious that different groups developed different dynamics – some were well-attended groups with ambitious programmes of collaborative action. In contrast, others simply exchanged information about the relevant activities of their organisation without much, if any, collaborative activity. Some had lively discussions about the community's needs that continued into the post-meeting cup of coffee, while others were functional and efficient but lacked energy. I became interested in understanding what could explain these differences and what, if any, effect they had on the effectiveness of the group.

To carry out this study, I was employed by a public sector body, the Housing Agency, under an employment-based grant scheme, which was funded and operated by the Irish Research Council. Prior to the commencement of research, the Housing Agency expressed concern that, based on their attendance at many of the network's meetings, they did not feel that the Housing and Disability Steering Groups (as they were then known) were functioning as they should. They sought to understand more about the dynamics between members of the groups and their experience as network members. They felt that change was needed to improve the effectiveness of the groups, particularly with their collaborative performance.

An examination of the literature on collaborative governance or collaborative public management revealed that this had been an active field of research for more than five decades. However, there was no evidence in either of the programmes I was involved with that the findings from countless empirical studies had made their way to the public managers managing the local groups.

Ireland has followed the international trend towards collaborative approaches to implementing government strategies and delivering publicly funded programmes. These operate in a range of policy areas, including, for example (in Ireland) children's services, criminal justice reform, physical activity, suicide prevention, ageing and older people, and the provision of housing for disabled people. In the latter two areas, the publication of national strategies on ageing and housing for disabled people led to the establishment of cross-sectoral groups in each local authority area in Ireland. This will be the focus of the empirical research in this study.

This chapter will outline in greater detail the rationale for the research and the research questions; it will then define the key concepts to be discussed before providing an overview of the structure of the thesis.

1.2 Rationale

As the field of research on collaborative public management expanded, the difficulties associated with "producing useful and authoritative knowledge about collaborative governance" (Douglas *et al.*, 2020, p.496) have been highlighted by several scholars. Most common have been calls for definitional and conceptual clarity (Mandell and Keast, 2007; Isett *et al.*, 2011; Kaiser, 2012; O'Leary and Vij, 2012; Lecy, Mergel and Schmitz, 2014) methodological advancement (Isett *et al.*, 2011; Glandon *et al.*, 2019; Scott and Ulibarri, 2019 and others) and the need to synthesise the findings from over five decades of empirical research on the determinants of effectiveness (McGuire and Silvia, 2009; Chen and Graddy, 2010; Turrini *et al.*, 2010; Bryson, Crosby and Stone, 2015; Lucidarme, Cardon and Wasem, 2016; Wang, 2016; Costumato, 2021).

Despite the best efforts of these eminent scholars, the gap between the knowledge developed in empirical research in this field and the level of knowledge among public managers does not appear to have been bridged over the years (at least not in Ireland). Some have argued that the focus on structure produced by the recent dominance of social network analysis could be enhanced by including a more behavioural perspective (Provan, Sydow and Podsakoff, 2017). In a practice-focused review of the most important issues, concepts, and ideas (O’Leary and Vijn, 2012), the authors highlighted two key points: that findings from research were not making their way to the world of practice, and there was a lack of awareness of the skills required by a successful collaborator, such as negotiation, facilitation, collaborative problem solving, and conflict management. Their call for “*precise theoretical models of behaviour*” (p.518) does not appear to have been answered in recent studies.

Individuals and the relationships they form are at the centre of network functioning, and to be effective, they must work together cohesively, interacting, sharing resources and information, becoming a network, and perhaps developing a shared group identity. For those tasked with the responsibility of establishing, participating in, or managing a collaborative structure, the initial goal is often to achieve a “different functioning entity” (Mandell, Keast and Chamberlain, 2017, p.326) that somehow blends the disparate skills, experiences, and mandates of the participants to create something new and cohesive. This entity transcends its members’ differences and potential conflicts to develop its own identity, an identity that is shared, understood, and valued by all the participants.

Research in this area is limited. The potential for individual identity to have relevance for the formation and management of a group was explored by Beech and Huxham (2003). Raab and Kenis (2009) in a theoretical essay, argued that consciously created and goal-directed groups, over time, can develop a separate identity. However, neither of these contributions sought empirical evidence of the contribution of collective or shared identity to network processes and functioning. Mandell, Keast, and Chamberlain (2017) furthered the discussion in this area with their contribution about the role of language in the development of a collective identity. They highlighted the importance of ‘collective understanding’ arising from shared meanings and language in successful collaborative networks (Keast et al, 2004). In the literature on collaboration between business networks in an industrial district, Sammara and Biggiero (2001) found that identification with a local district explained behaviours such as commitment and cooperation, which increased the district’s competitive advantage.

However, the potential for developing a shared group identity to act as a unifying concept has not been explored to date. The challenges associated with collaboration across organisations and

sectors have been clearly articulated (O’Leary and Vij, 2012). Without a clear understanding of how individuals from diverse backgrounds overcome differences to develop into a new cohesive entity, the challenges may become too great, and the engagement of participants may become difficult to sustain. Gaps remain in our understanding of exactly how shared identity is created, what collaborative processes are central to the formation of an identity, and whether the creation of a shared identity is necessary for effectiveness. These gaps were important drivers of the research undertaken.

1.2.1 Methodological challenges and opportunities

As outlined above, many authors have pointed to the need for methodological approaches to go beyond the focus on single case studies to produce more generalisable knowledge. Some have identified a need for comparative research to overcome their shortcomings (Turrini *et al.*, 2010; Isett *et al.*, 2011; Gazley, 2017). In recent years, acknowledging the fact that collaborative outcomes are the result of multiple interactions and reactions occurring in different contexts with different underlying motivations and mechanisms, some empirical studies have taken a configurational approach to exploring the multiple pathways that can lead to effectiveness (Raab, Lemaire and Provan, 2013; Fedorowicz, Sawyer and Tomasino, 2018; Cui and Yi, 2020; Fadda and Rotondo, 2020; Lagendijk, Velde and Kuijpers, 2020; Lemaire, 2020). This has led to increasingly complex ‘causal recipes’ that have expanded the number and combinations of determinants of effectiveness.

From the practitioner’s perspective, the configurational approach, while providing insight into the range and combinations of factors contributing to effective collaboration, can make it challenging to arrive at a clear consensus that more will be achieved through collaboration than by competition or bureaucratic-led action. Furthermore, if there are multiple pathways to effective collaboration, it may seem that there are no guarantees that following a set of prescribed rules will ensure success. Instead, the multiple permutations and combinations of factors have the potential to leave practitioners endlessly searching for the perfect causal recipe for success.

This study seeks to simplify and clarify our understanding of the dynamics of collaboration by focusing on the behavioural or functional characteristics of networks. Specifically, it aims to answer the following questions:

1. What is known about effectiveness in governance networks and how is it measured?
2. What is the nature of shared identity in a governance network? In other words, this study will consider whether conditions that commonly occur when individuals collaborate in a

governance network combine to create a shared identity and, if so, in what combinations?

3. What is the causal mechanism that links these process factors to the development of a shared identity?
4. Do effective networks create a shared identity? What, if any, causal pathways can be found linking the process factors that combine to create a shared identity (such as shared goals, interactions, mutual support, etc) and the outcomes for network members, service users, and/or community members?

1.2.2 Conceptual clarity

To address the call for clear definitions and a common language, this section will briefly review the efforts made in this area before outlining the definitions used in this research. Collaboration can range from simple, ad hoc, joint activity between colleagues in one organisation to a formal, structured multi-sectoral programme of activities involving multiple individuals and organisations. At its most basic, it involves two or more people working together to achieve a goal. Collaborative activity can also be differentiated by the types of interaction between the constituent organisations, distinguishing between cooperation, coordination, and collaboration in networks (Keast and Mandell, 2014; Castañer and Oliveira, 2020). McGuire and Silvia (2010 p.283) describe them as forums that are typified by an *“exchange of resources such as funding, information, and expertise...typically intersectoral, intergovernmental, and based functionally in a specific policy or policy area”*. Therefore, one of the defining characteristics of a governance network is that it brings together individuals from different sectors or organisations, each contributing resources from their different experiences and backgrounds to address a social issue or societal problem.

In a review of the history of network research in public administration, Isett et al. (2011) identified three streams of literature relating to the different network forms: policy networks, collaborative networks, and governance networks. Policy networks bring together inter-dependent public agencies and private sector organisations that already share a common interest in a particular area of policy (Isett et al., 2011) to make decisions about the allocation of public resources. Collaborative networks, or cross-sectoral collaborations, include a range of public, private, and non-profit organisations working together to tackle an important social issue through interdependent activities, acknowledging the fact that a single agency or service provider alone cannot achieve the desired aims (Mandell, 1999; Agranoff and McGuire, 2001). The third stream, governance networks, link the provision of services and public goods with policy-making (Klijn and

Koppenjan, 2000; Sorensen and Torfing, 2012) and act as a forum for the coordination of the activities of its members towards a common goal.

The quest for a single definition has been ongoing for many decades. Based on a review of definitions in use at the time, Wood and Gray sought to develop a comprehensive definition of collaboration, distilling the essential elements from existing literature: *“collaboration occurs when a group of autonomous stakeholders of a problem domain, engage in an interactive process, using shared rules, norms and structures, to act or decide on issues related to that domain”* (Wood and Gray, 1991, p.146). More recently, Bryson et al. (2006) provided a definition that focuses more on the activity carried out by the group; *“the linking or sharing of information, resources, activities, and capabilities by organisations in two or more sectors to achieve jointly an outcome that could not be achieved by organisations in one sector separately”* (Bryson, Crosby and Stone, 2006 p.44).

While each of these definitions has its strengths and provides additional clarity, the groups that are to be the subject of this chapter are closely aligned with the definition of ‘governance networks’ as set out by Koppenjan and Klijn (2004): *“more or less stable patterns of social relations between mutually dependent actors which form around a policy program”* (pp. 69–70), referring to the network as a structure formed out of patterns of relations. The definition offered by Ansell and Gash (2008) for “collaborative governance” provides a more complete understanding of the phenomenon by including a focus on the process; *“a governing arrangement where one or more public agencies directly engage non-state stakeholders in a collective decision-making process that is formal, consensus-oriented, and deliberative and that aims to make or implement public policy or manage public programs or assets”* (Ansell and Gash, 2008 p.544). The “patterns of social relations” of the Koppenjan and Klijn (2004) definition, when added to that of Ansell and Gash, provide a comprehensive definition that encompasses the essential elements of the networks that are to be the subject of this research. Therefore, the definition of governance networks to be used in this study amalgamates Ansell and Gash’s definition with that of Koppenjan and Klijn to refer to *“a governing arrangement where one or more public agencies directly engage non-state stakeholders in patterns of social relations, including a collective decision-making process, in a formal, consensus-oriented, and deliberative group, that aims to make or implement public policy or manage public programs or assets”* (Ansell and Gash, 2008 p.544 and Koppenjan and Klijn 2004).

In practice, the distinction between ‘collaborative networks’ and ‘governance networks’, as set out by Isett (2011), is not clearly delineated in the two programmes that are the subject of this research. Their key features are that public agencies initiate a collaborative process and engage

with a range of stakeholders who meet collectively in formal structures that are made up of interdependent individuals, generally acting as representatives of organisations. They are made up of three or more organisations that engage in a process that coordinates the activities of the groups, sometimes sharing resources, other times acting independently but sharing information, leading to the development of relationships. They contribute to policy-making, formally or informally, to tackle a societal issue and develop interventions or actions that can bring about change and produce better outcomes for older people or people with a disability. This type of network fits the definition of ‘whole network’ described by Provan et al. (2007) as “...*formally established and governed and goal-directed rather than occurring serendipitously*” (p482).

In conclusion, despite decades of research and the increasingly complex conceptualisations of collaborative structures, the link between individual behaviours in group settings and the overall effectiveness of the network has remained under-explored (Provan, Sydow and Podsakoff, 2017). Much of the research on collaborative governance carried out to date has looked at specific parts of the collaborative process—sometimes in isolation, other times taking a broader, more configurational approach but failing to integrate the individual-level behavioural dimension associated with social relations—to explain how diverse individuals come together, commit to a common purpose, overcome tensions, and produce outcomes at multiple levels. (Das and Kumar, 2011; Provan, Sydow and Podsakoff, 2017). This literature will be further examined in Chapter 2.

1.3 Outline of the research

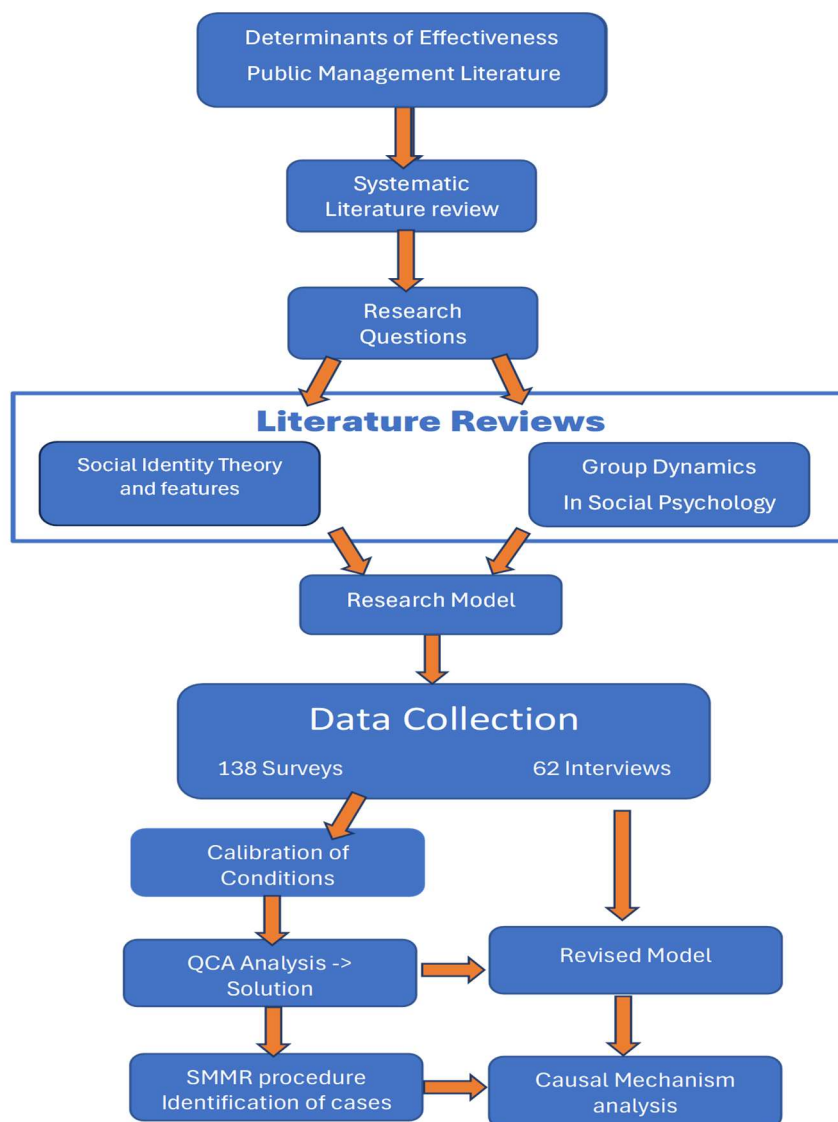
This study comprised several steps to achieve the research aims (see Figure 1.1 below). Following this introduction, Chapter 2 presents the literature review, outlining evidence to support the proposed research model. It describes the systematic literature review carried out to explore the approach taken to measuring collaborative effectiveness in recent empirical research. It then goes on to discuss in detail the concept of identity and its formation at individual and group levels, and how this might be relevant to collaborative processes and outcomes.

Chapter 3 outlines the methodology to be used to answer the research questions proposed in this introduction. It outlines the research philosophy and its influence on the research design and methods used. The chapter then discusses the relevance and value of the mixed-methods research approach before presenting details on the empirical setting and cases. The research instruments used for quantitative and qualitative data collection are described, and the approach taken to assess the reliability of the survey items is described. Finally, it incorporates a description

of Qualitative Comparative Analysis (QCA), the analytical approach used to assess the survey data, and the calibration of the data prior to analysis.

FIGURE 1.1 OUTLINE OF RESEARCH STEPS

Chapter 4 presents the survey data, describes the cases, and provides detail on the calibration process that transforms raw data into the calibrated data needed to carry out a QCA analysis. Chapter 5 presents the QCA analysis, starting with a consideration of the contextual conditions through the two-step QCA approach (Schneider, 2019). This is followed by an analysis of the necessity and sufficiency of the main conditions in the model for the three different outcome measures: shared identity, subjective effectiveness, and objective effectiveness. A brief description of the robustness tests carried out to establish the reliability of the findings follows.



Finally, the findings from the post-QCA analysis will be presented, concluding with the selection of cases for further in-depth analysis at the within-case level.

Chapter 6 discusses the preceding analysis and presents the details of the within-case analysis.

Finally, Chapter 7 returns to the research questions, summarising how these questions have been answered and the contribution they make to our understanding of governance networks in public management before reflecting on the limitations and potential areas for further development of this work.

2 Review of Literature

2.1 Introduction

The need for empirical research that takes a comprehensive approach to identifying the links between network features, mechanisms, and processes; the interactions and interdependencies between network members; and the ultimate outcomes of collaborations has been identified by many (Gray and Wood, 1991). Some have called for an increased focus on outcomes (Ulibarri, 2015) while others have argued that the processes involved in developing or maintaining a network have been neglected in the literature (Heranz, 2010; Berardo, Heikkila and Gerlak, 2014; Berthod and Segato, 2019).

While there is ample evidence of effective collaboration, these networks can also be fraught with difficulties and tensions (Lewis, Isbell and Koschmann, 2010; Rigg and O'Mahony, 2013; Koschmann, 2016) and even when the ideal conditions exist, they may fail to show evidence of effectiveness. For example, one recent study found that even when many of the conditions that are known to be associated with successful collaborations are met, goals can still be difficult to achieve. In this study, one of the networks had stable membership over a significant period, regular and repeated interactions between participants, resource sharing, and common working methods, but still reported limited progress towards goals. (Nohrstedt, 2018)

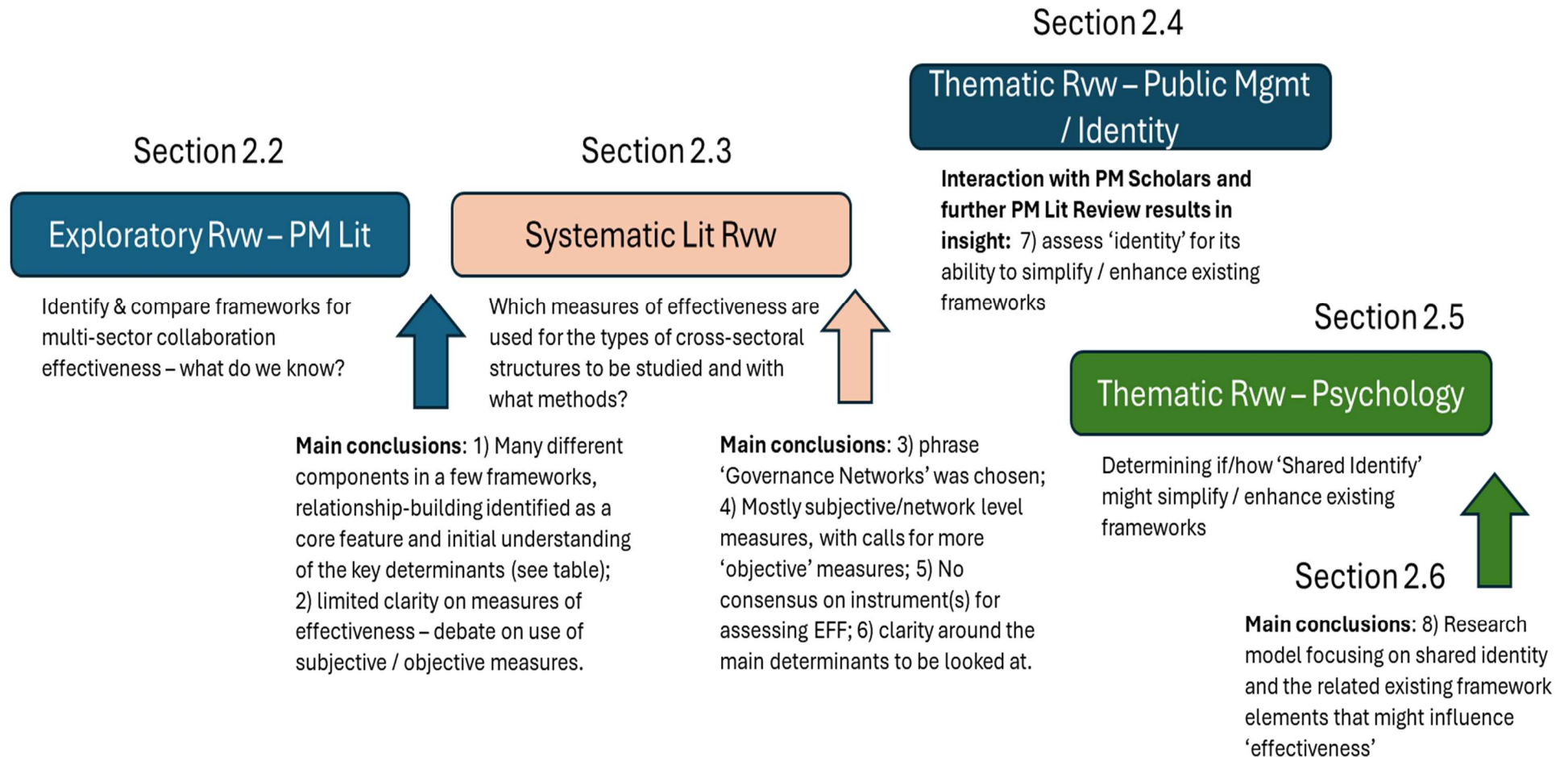
The research questions guiding this study resulted from a multi-stage literature review, with each stage building on the knowledge derived from the preceding stage. The review commenced with an exploration of multisectoral collaboration in public management literature. This stage commenced with a comparison of main theoretical frameworks derived from both empirical and theoretical literature to identify the commonalities and differences between them. The purpose of this stage was to develop an understanding of the known features and processes contributing to the development of effective sustainable collaborative governance structures. It found that the factors that influence effectiveness can be categorised into four main dimensions – the context or environment in which the collaboration takes place, the drivers or facilitators of collaboration, the process of collaboration, and the resources employed. Based on the findings from this stage of the review, a systematic literature review was carried out to answer some specific questions, such as what methods and units of analysis have been used, what measurement approach was taken and what is currently known about effectiveness. As became clear from the systematic and thematic review, this is a well-developed field, with at least four decades of empirical research

adding to knowledge, expanding the theoretical frameworks and identifying a range of known determinants of effectiveness.

Rather than add to the number of known determinants or pathways leading to effectiveness or the comprehensiveness of the theoretical frameworks, a more parsimonious approach was decided on as the most beneficial way of contributing to the field. Based on research from public management scholars that good collaboration in governance networks leads to the creation of a new entity with its own *identity*, (Mandell and Keast, 2017; Beech and Huxham, 2003; Fiol *et al.*, 2005) the next stage of the literature review explored the concept of identity for its potential to reduce the complexity of the frameworks, collapsing a number of determinants into one more proximate determinant linked to the collaborative dynamics in networks.

The research questions were further refined in the third stage of the literature review, which focused on developing an understanding of whether/how identity could contribute to the theoretical development of collaborative governance network effectiveness. This stage of the review examined the contribution of public management scholars to the understanding of identity in governance networks, before drawing upon social psychological literature and group dynamics literature to more precisely define the concept of shared identity for the purpose of this research. The chapter will conclude with the development of a research model informed by a broad range of sources, capable of enhancing existing theory and ultimately leading to the development of a more parsimonious model of effectiveness in governance networks.

FIGURE 2.1 OUTLINE OF LITERATURE REVIEW



2.2 Phase 1 - Thematic review on the Determinants of Effectiveness

Research into collaboration across sectors and organisations has proliferated over the past four decades or so and as the field continued to grow, efforts to manage the growing field of knowledge also continued, as researchers extended our understanding of collaborative structures and processes through reviews of the voluminous literature. Aiming to synthesise knowledge, many scholars have sought to pull together what is known about effectiveness in governance networks, developing models that conceptualise the landscape and theorise the relationships between different variables and components and their influence on outcomes. Many of these widely-cited frameworks provide a way of understanding and improving the effectiveness of governance networks and collaborative governance, offering both theoretical and practical insights into the dynamics of collaboration across different sectors and contexts. This section will first provide a brief overview of some of the most widely cited frameworks, before comparing them to identify commonalities and differences and drawing conclusions, based on many decades of empirical research, on the most significant factors to be considered in an exploration of effectiveness.

2.2.1 Comparison of existing frameworks

Over the decades, multiple frameworks have been developed following extensive reviews of the literature, each seeking to improve on existing models and to include new learnings. While the work of Provan and Milward (1995) is seminal, it has been adopted and expanded on in the framework produced by Turrini (2010) and can therefore be assumed to be incorporated in this review. Similarly, the most recent framework by Bryson, Crosby & Stone (2015) incorporates learning from Thomson and Perry (2006); Provan and Kenis (2008); Emerson, Nabatchi, and Balogh (2011); Koschmann, Kuhn, and Pfarrer (2012); and their own earlier framework - Bryson, Crosby, and Stone (2006). Ansell and Gash (2008) also developed their model from an extensive review of existing literature and has been used as a reference point for many other authors. Therefore, while the discussion below focuses on the frameworks of Ansell and Gash (2008); Turrini et al (2010); Bryson, Crosby & Stone (2015) and Emerson and Nabatchi (2015), this comparison will incorporate the learnings from many others.

One of the earliest attempts to integrate findings from thirty years of research, to develop a comprehensive theory of collaboration, was developed by Gray and Wood (1991). The authors proposed three components considered essential: the preconditions that lead to collaborative activity, the processes used to bring about collaboration, and the outcomes that can be expected

when organisations collaborate (Gray and Wood, 1991). These three categories (the ‘before’, ‘during’ and ‘after’) provide a basic structure for a synthesis of key findings – a structure that was enhanced by Emerson and colleagues (Emerson, Nabatchi and Balogh, 2012; Emerson and Nabatchi, 2015) who identified three essential components; the environment or context, the drivers or facilitators of collaborative activity and the process or collaborative dynamics - each of which is made up of underlying components or determinants of effectiveness. This section will first give an overview of the key frameworks before comparing them under these categories, and then moving on to explore the outcome measures identified in various theoretical frameworks.

In their influential 2008 article, Ansell and Gash present a comprehensive framework for understanding the dynamics and effectiveness of collaborative governance. The framework is built around a cyclical model that includes starting conditions, institutional design, facilitative leadership, and the collaborative process itself. Starting conditions include the initial trust levels, power imbalances, and incentives offered at the outset. As part of this process, members agree on common values and develop a shared understanding of both the problem and the solution. Their actions are governed by clear ground rules, and through the development of transparent processes and facilitative leadership, they communicate, negotiate, and take action to achieve ‘small wins,’ in a cyclical process that builds trust, thereby increasing their commitment to the process, which in turn produces positive outcomes (Ansell and Gash, 2008).

The framework presented by Turrini et al. (2010) was also based on a comprehensive systematic literature review, covering multiple disciplines to include a broad range of perspectives and empirical evidence. In Turrini’s framework, the functioning characteristics included factors such as trust among participants, the presence of strong leadership, the establishment of clear and shared goals, and the existence of supportive institutional frameworks. They also highlighted factors such as communication and continuous stakeholder engagement to maintain momentum among network members. The review also pointed out the challenges of power imbalances and the complexities of managing diverse interests. However, as the authors pointed out “most causal mechanisms still have to be tested” (Turrini et al., 2010 p.546).

In a revision of their 2006 work, Bryson, Crosby, and Stone (2015) sought to integrate the main theoretical approaches with findings from empirical studies to offer a complex and comprehensive representation of knowledge in this area. The framework links general antecedent conditions such as resources, the institutional environment, and the motivation to collaborate with initial conditions, drivers and mechanisms through processes such as including a shared understanding of the problem, development of mutual trust, and the presence of skilled leadership to navigate complex interorganisational dynamics, which may produce endemic

conflicts and tensions, to produce outcomes and accountabilities (Bryson, Crosby, and Stone, 2015).

Emerson and Nabatchi (2015) in their “Performance Matrix” developed a similarly comprehensive framework, expanding on their 2012 model and synthesising a range of theoretical and empirical insights into a cohesive model. Their framework is structured around three core components: the system context, the collaborative governance regime (CGR), and collaborative dynamics. The framework again highlights the cyclical and dynamic aspects of the collaborative processes, identifying the important components and drivers of successful collaboration. The system context includes the broader environmental factors and conditions that influence the collaborative process, including political, legal, social, and economic environments. Within the collaborative governance regime, (CGR) they identify three primary drivers: principled engagement, shared motivation, and capacity for joint action. Principled engagement involves inclusive participation, open dialogue, and mutual respect. Shared motivation refers to trust, commitment, mutual understanding, and internal legitimacy among participants. Capacity for joint action includes the resources, knowledge, and competencies necessary to achieve collective goals.

2.2.2 Core features of existing frameworks

These four frameworks have much in common in their aims, content and structure. They all recognise the importance of the context within which networks operate and its influence on their design, implementation, and effectiveness. However, Bryson, Crosby, and Stone (2015) offer a more extensive consideration of the importance of context or environmental conditions. In their framework, the contextual conditions are divided into two categories; general antecedent conditions such as resources, the institutional environment, and the need to address a public issue. They outline a range of different factors likely to increase or decrease effectiveness such as the political environment, economic and social contextual factors for success. Turrini et al (2010) also identified a range of contextual factors such as the stability of the overall system, availability of resources, such as local financial resources and technical assistance systems or history of collaboration and participation in public activities within the local community or fiscal control by the state, all of which they argue, can have an influence on network outcomes.

All frameworks highlight the iterative, cyclical nature of collaborative interactions and the fact that collaboration must be facilitated or driven by factors such as rules (formal or informal) and allocation of responsibility, as well as the governance structure and external support. For example, Ansell and Gash argue that, to achieve their goals there should be a constant interplay

of the essential elements in their frameworks, where initial conditions and institutional design shape the process, but it is the network leadership that sustains it.

Leadership has been identified by all the frameworks as a crucial factor. Ansell and Gash talked about the importance of facilitative leadership while Bryson, Crosby and Stone refer to adaptive and strategic leaders. Facilitative leaders are those who help to mediate conflicts, keep the network focused on common goals, and ensure that all voices are heard. These leaders provide a supportive and inclusive environment in which stakeholders can engage with and commit to the collaborative process. Adaptive and strategic leadership describes leaders who can navigate the complexities and uncertainties inherent in cross-sectoral work through their flexible, responsive approach to changing conditions, and their skilled management of diverse stakeholder interests and power dynamics. They are also strategic, capable of designing effective governance structures, fostering strong partnerships, and ensuring accountability. These leaders drive the collaboration forward by maintaining momentum, addressing conflicts, and leveraging opportunities for joint action.

Similarly, Emerson and Nabatchi's framework integrates leadership within their broader framework of collaborative dynamics, which includes principled engagement, shared motivation, and capacity for joint action. They highlight the importance of leadership in fostering principled engagement by ensuring inclusivity, fairness, and respect among stakeholders. Leadership is also critical in maintaining shared motivation through building trust, commitment, and mutual understanding. Furthermore, leaders play a pivotal role in enhancing the capacity for joint action by mobilizing resources, coordinating efforts, and facilitating continuous learning and adaptation.

Beyond leadership, other functioning characteristics have been identified by each of the frameworks such as Turrini et al (2010) who argued for the importance of integration mechanisms and management techniques to ensure that clear mission statements are developed to steer the network and shared goals are committed to by members. All frameworks are agreed on the importance of motivating and securing the commitment of members (Agranoff and Mcguire, 2001), selecting the appropriate actors and resources for the network and ensuring that these resources are managed to allow the network to absorb the available skills and knowledge of members. Turrini et al (2010) also identified group size and composition as an important facilitator along with formalized rules, decision-making procedures, and external communication about results. Ensuring that the network retains consistent membership helps in the development of trust among network members.

Resources have been identified by all frameworks; for Ansell and Gash (2008) resources and in particular, resource and power imbalances are seen as part of the motivation to collaborate in the starting conditions of the collaboration. In the both the Turrini framework and the Bryson, Crosby and Stone resources were considered to be central to the contextual conditions that facilitate effective collaborations while in the Emerson, Nabatchi and Balogh (2012) framework, resources are part of the collaborative dynamics under the 'Capacity for Joint Action' heading.

2.2.3 Collaborative Outcomes

Effectiveness in the context of a governance network has been defined as “the attainment of positive network-level outcomes that could not normally be achieved by individual organisational participants acting independently” (Provan and Kenis, 2008 p230). This definition captures the essential characteristic of a governance network: that it aims to produce additional value from the combination of the resources, skills, and ideas of its individual participants.

Over the past ~40 years, the measurement of effectiveness in governance networks has evolved significantly, reflecting changes in theoretical perspectives, methodological approaches, and practical challenges. In the early years, process-level outcomes, such as the existence of a stable, collaborative group, were used as indicators of success. In more recent years, a growing emphasis on structural outcomes was apparent, through the use of measures linked to social network analysis such as density or centrality. Provan and Milward's seminal work in the 1990s, introduced a framework that evaluated network effectiveness at three levels: community, network, and organisation (Provan and Milward, 1995), recognising the importance of measuring outcomes derived from the internal dynamics of the network as well as its impacts on the broader community. At the client level they propose improvement in the well-being of clients and overall quality of service delivery as a measure, at the community level they argue that measures of broader community benefits such as distributional effectiveness, access to services, and participation in public activities can be used and at network-level they propose measures of sustainability, legitimacy, and maintenance of the network structure. Finally, at the individual level outcomes such as an increase in individual capacity or job satisfaction have been proposed (Popp *et al.*, 2015). However, Turrini et al (2010) suggested that the difficulty in measuring outcomes at each of the different levels has led to gaps in our understanding of the potential interactions or mediation effects that may occur between the clusters of variables. (Turrini et al., 2010 p.546)

Bryson Crosby Stone (2015) suggested that measurement of outcomes must be linked to accountabilities and in common with Provan and Milward they argued for multiple levels of

outcome measurement including network-level measures such as resilience and reassessment learning as well as community-level measures such as public value creation. Measuring outcomes at community level and in particular the challenge of identifying measures that can reliably be attributed to the work of the network has been highlighted. Researchers frequently use quantifiable outcomes such as service delivery efficiency (Langabeer *et al.*, 2017), policy implementation rates, or resource accumulation levels.

Emerson and Nabatchi (2015) developed a comprehensive matrix that measured outcomes at three levels (actions, outcomes, and adaptation.) and used three different units of analysis (the participant organisation, the CGR, and the target goals) and they argued for the measurement of outcomes using a combination of the performance levels and the units of analysis ie nine different dimensions of effectiveness.

One of the defining characteristics of a governance network is that it brings together individuals from different sectors and organisations, each contributing resources from their different experiences and backgrounds through which joint action and learning are facilitated (Mandell and Keast, 2008). Beyond the four frameworks compared above, Lasker and Weiss (2001) have argued for a focus on synergistic outcomes, which they defined as outcomes that result from the combination of “*the complementary strengths, perspectives, values and resources of all the partners in the search for better solutions*” (Lasker, Weiss and Miller, 2001). They identified a number of contextual and relational characteristics that they associated with synergy. Contextual characteristics related to organisational resources such as money, space, skills and other factors relating to the external environment. The relational characteristics included factors such as organisational heterogeneity and level of involvement or commitment, leadership, governance and efficiency while at interpersonal level they saw trust, conflict and power differentials as important characteristics to measure. (Lasker & Weiss 2001). Table 2.1 below shows the comparison between the frameworks under each of the headings.

TABLE 2.1 COMPARISON OF FRAMEWORKS

Frameworks	Ansell & Gash (2008)	Turrini et al. (2010)	Emerson & Nabatchi (2012)	Bryson, Crosby & Stone (2015)
Context/Environment	Historical context and prehistory of cooperation/conflict Power-resource-knowledge asymmetries Incentives for stakeholders to participate	System stability Network's initial conditions (existing relationships, history of collaboration) Availability of local financial resources Cohesion and support from the community	System context (political, economic, social, and environmental conditions) Initial conditions (resource dependencies, power dynamics) External drivers (crisis, mandates, resource scarcity)	Environmental context (policy, legal, economic, political conditions) Stakeholder legitimacy and power Nature of the issue (complexity, uncertainty, interdependence) Resources from nongovernmental partners to solve issues. Institutional environment/Mandates Window of collaborative opportunity Vulnerable to policy/political change Need to address public issue (sector failure)
Resources	Resource imbalances part of the starting conditions and resource distribution part of the leadership function	Resource sharing – motivation for collaboration	Part of the capacity for joint action, (functional component of collaboration dynamics)	Resource sharing and coordination

Drivers/Facilitators	Clear ground rules and process transparency Inclusive governance structure Broad and inclusive stakeholder participation	Formalisation, rules and norms, accountability Roles and responsibilities within the network External control Integration mechanisms and tools Size and network inner stability Network structure (centralization, density, integration)	Institutional arrangements (formal and informal rules, norms, and practices) Clear and adaptable process design Diverse and inclusive stakeholder involvement	Governance structure (formalized roles, responsibilities, decision-making processes) Clear and flexible institutional design Inclusivity and diversity of stakeholders Strategic planning
Process/Collaborative Dynamics – Leadership, Shared goals, Management of processes, Trust and Relationships, Communication	Facilitative leadership is crucial	Adaptive leadership and management	Essential for fostering engagement and shared motivation. Collaborative leadership	Complexity requires adaptive and strategic Leadership roles and processes.
	Collaborative process management	Collaborative processes and decision-making	Principled engagement/Shared motivation/Capacity for joint action	
	Shared understanding and commitment to the process Clear and shared goals to maintain focus and direction.		Goals - part of 'capacity for joint action', aligning with shared motivation	Clear goals and objectives for strategic alignment.
	Initial conditions, trust-building	Trust and social capital	Shared motivation includes trust. Procedural and distributive fairness	Trust-building critical for managing diverse interests. Mutual gains and benefits

	Face-to-face dialogue - Part of the iterative dialogue and decision-making process	Information sharing	Important for principled engagement and shared motivation	Communication and information sharing- Vital for effective cross-sector collaboration
	Small wins/Intermediate outcomes		Continuous adaptation and Generative learning	Endemic conflicts and tensions Power imbalances. Vulnerable to exogenous and endogenous shocks, multiple institutional logics, and tensions Flexibility versus stability Inclusivity versus efficiency Unity versus diversity Autonomy versus interdependence (or self-interest versus collective interest) Shared value creation
Outcomes	Not specified as part of the model	3 levels – client level, community level and network-level (3 indicators, goal-achievement, innovation and change and stability and viability.	3 levels of measurement – Outputs, Outcomes and Adaptation 3 Units of analysis – participant organisation, the CGR and the target goals	Accountabilities – Formal and informal Outcomes; tangible and intangible, intermediate/long term and multiple levels of outcomes Resilience and reassessment Public value creation

2.2.4 Approaches to Measurement of Effectiveness

Measuring effectiveness in governance networks is a complex endeavour, given the collaborative nature and the multifaceted interactions involved. Traditional performance measures often fall short in capturing the full scope of network effectiveness, especially in public management and multisectoral contexts. As discussed above, the multidimensionality of these networks calls for comprehensive evaluation methods that consider individual, organisational, and network-level contributions and outcomes. Recognizing the unique characteristics and relationships within networks, as well as the contextual and behavioural motivations of participants, is crucial. Synergistic outcomes, reflecting the combined strengths and resources of network partners, provide a meaningful measure of effectiveness. However, the reliance on self-rated measures requires careful validation to ensure reliability.

Mandell and Keast (2008) have argued that governance networks are not homogeneous, and it is therefore important to acknowledge the differences in network type, the willingness to collaborate, and the intensity of relationships formed. The levels of intensity that may apply to relationships within networks range from cooperation to coordination and finally collaboration (Mandell and Keast, 2008) and of the three types, they argue that traditional performance measures can only be used for the first two (Brown and Keast, 2003). Instead, they argue that “new, non-traditional methods of evaluating performance that identify the nuances of the differences in networks including the nature of their relationships become necessary” (Mandell and Keast, 2008 p.718) They argue for the development of a two-step evaluation process that includes an assessment of the quality of the relationship-building within the group along with measurement of ‘traditional’ goal-achievement outcomes.

The challenge associated with the identification of appropriate outcome measures is not the only one experienced by network researchers – collecting data on the agreed outcome measures has also presented problems. The use of subjective or self-rated measures has been justified on the basis that, in many cases, alternative data sources were not available. However, there has been some debate about the use of self-rated measures. Subjective measures of the effectiveness of governance networks offer several advantages, particularly in capturing the nuanced and relational aspects of network performance. These measures, derived from the perceptions and experiences of network participants, can provide deep insights into issues such as trust,

cooperation, and satisfaction levels within the network and can only be measured subjectively. Subjective measures also offer the advantage of providing more immediate feedback, allowing for adjustments to processes and strategies, enhancing the network's responsiveness to emerging issues (Provan & Milward, 2001).

Those who support the use of subjective measures have questioned the reliability and validity of the objective measures, while others have argued that perceptions can be open to common method bias (Cristofori and Macciò, 2018) where the method of data collection itself influences the responses, as noted by Wall et al. (2004). Factors such as personal experiences, individual biases, and the specific roles of respondents within the network can significantly influence subjective evaluations, leading to inconsistencies and potential inaccuracies in the assessment of network effectiveness (Golden, 1992). Both of these factors can potentially complicate the interpretation of results and make it difficult to draw reliable conclusions about the network's performance. Some have argued that objective and subjective measures of the same concept do not always provide the same results. Jennings and Ewalt (1998) compared findings from a 1994 study (which used perceived performance as a measure) with objective measures of performance such as the number of job placements and found virtually no agreement between the two sets of indicators.

In his article on the evaluation of public participation in policy making, Coglianese (Coglianese, 2005), argues strongly against the use of 'satisfaction' as a measure of success. While it may be appropriate in the evaluation of processes such as dispute resolution techniques, he argues that it is not an accurate measure in all situations. While acknowledging that participant satisfaction can be convenient for researchers using surveys or interviews, he suggests that by their nature, satisfaction metrics will reflect the opinions of those who participate and exclude a broader public perspective leading potentially to a skewed understanding of success. Supporting his argument with examples such as California's electricity market restructuring, which was initially satisfactory but later revealed to have significant policy failures, he argues strongly that satisfaction cannot be equated with effectiveness, efficiency, or equity of policy outcomes, which are crucial aspects of public policy evaluation. From a methodological point of view, satisfaction measures can also lead to inaccurate findings. For example, he suggests that surveys tend to truncate extreme satisfaction and dissatisfaction, making it difficult to assess the intensity of participants' feelings accurately. Participants' perceptions can be erroneous or influenced by irrelevant factors, such as

cognitive dissonance, where more effort-intensive participation processes lead to higher reported satisfaction due to psychological adjustments.

These findings are supported by evidence from psychological studies that suggests that people tend to perceive themselves (or their organisation) more positively than they perceive others or other organisations (Borman *et al.*, 1991; Conway, Lombardo and Sanders, 2001) and that that perception of success can be influenced by other factors such as role or prior experience. A person's level of engagement in the collaboration may influence their perception of success; Barile (2012) found that collaborative board members tended to give higher ratings for a range of functions that they are involved in, such as planning, communication, leadership, and budgeting, than regular members. Similarly, at the individual level, the role of the member and their attendance at meetings were linked to their perception of the success of the collaboration at the individual level, and the stability of leadership (in relation to tenure) was linked to the perception of success at the collaborative level (Barile *et al.*, 2012).

Coglinese and others have therefore argued that objective measures provide a standardized and quantifiable means of assessing governance effectiveness. Measures such as policy implementation rates, service delivery outputs, and compliance with regulations, can all be consistently tracked over time and compared across different networks (Meier & O'Toole, 2002). The main advantage of objective measures is their ability to provide a clear, unbiased picture of performance based on verifiable data, which enhances transparency and accountability.

However, it has also been argued that objective measures also have notable disadvantages such as their potential narrow focus, which may fail to capture the complexity and multifaceted nature of governance network performance. Governance networks operate in dynamic environments where qualitative aspects such as stakeholder satisfaction, trust, and legitimacy are crucial for overall effectiveness but are difficult to quantify objectively (Kenis & Provan, 2009). Moreover, objective measures can be influenced by data availability and may not always reflect the broader contextual factors impacting network performance.

Meier and O Toole (2013) reviewed the literature on empirical studies comparing objective and subjective measures, focusing, in particular, on the use of managers self-ratings of performance. Based on an admittedly limited number of studies, the authors concluded that the self-perceptions of managers were likely to be biased in systematic ways and that... "Scholars should

not rely on such measures without validation by comparing them to other existing performance measures” (Meier and O’Toole, 2013 p.17. However, Andrews, Boyne and Walker ((Andrews *et al.*, 2010) carried out a more extensive empirical comparison of objective and subjective measures and found varying degrees of correlation between objective and subjective measures. They compared three measures objective, internal subjective (the views of staff members) and external subjective (the views of inspectors or non-staff). Their analysis suggests that internal and external subjective measures were weakly correlated, reflecting divergent views on performance, objective and internal subjective measures were also weakly correlated, suggesting different aspects of performance are captured by each measure. Finally, when they compared objective against external subjective measures (the judgements of non-staff members) they found positive but weak relationships, indicating inspectors' judgments aligned loosely with objective and perceived achievements. Their evidence suggests that both objective and subjective measures provide different perspectives on performance, with neither being inherently superior. They are not closely correlated due to their focus on different performance elements and this points to the importance of using both types to capture diverse interpretations and address the limitations of each measure.

2.2.5 Conclusion

In conclusion, based on the thematic review of evidence, a broad range of determinants have been identified at different levels and dimensions. These determinants can be categorised into three main areas – contextual or environmental factors which in many frameworks include resources, the drivers or facilitators of collaboration (including structure, governance, rules, etc.) and the processes or collaborative dynamics. Relationship-building has been identified as a core feature of all the frameworks reviewed and public management scholars have argued that the quality of the relationship-building as well as traditional approaches to measurement of goal achievement should be part of any evaluation.

The theoretical frameworks have identified a complex range of levels and units of analysis that need to be taken into account when evaluating effectiveness, but the availability of data at each level or unit of analysis may make the endeavour challenging. Further, the identification of appropriate and agreed measures can be difficult and the potential advantages and limitations associated with subjective and objective approaches suggests that it is important to combine both

to achieve a more comprehensive and accurate evaluation of governance networks, as each type of measure alone may not provide a complete picture of effectiveness (Boyne and Dahya, 2002; Kayes and McPherson, 2010). Finally, the review suggests that there is limited agreement on the approach to be taken to the measurement of effectiveness. Therefore, the next section will systematically review the literature to explore in more detail the approaches taken in recent empirical literature to measurement of effectiveness.

2.3 Phase 2 - Systematic Literature Review

Having reviewed the literature on frameworks and determinants of effectiveness, the next step was to develop a clearer understanding of 1) the commonalities and patterns apparent in effective governance networks, and 2) the methodologies and measurements used to discover these by carrying out a systematic review of the literature on the *effectiveness* of governance networks and the methodologies used to research this phenomenon. Multiple authors suggested that the field was in need of methodological advancement; Isett and colleagues suggested that the variable-based view had not served to develop a comprehensive theory of collaboration (Isett et al., 2011 p.167) while Gazley argued against the predominance of single case studies produced (Gazley, 2017). Therefore, one of the aims of this review was to see how the field had progressed methodologically in recent years.

As discussed above, Turrini et al. (2010) carried out a comprehensive systematic literature review from multiple disciplines, including public administration, management, and political science, to bring together a broad range of perspectives and empirical evidence on the factors influencing the effectiveness of collaborative governance. In doing so, Turrini et al. provided a valuable framework for understanding the dynamics of collaborative governance. Consequently, this search was limited to empirical studies published since the publication of the Turrini et al study in 2010. The aim was to take a comprehensive approach, using a range of inclusion and exclusion criteria to identify articles relevant to this research (see Section 1.3). The review addressed four key questions:

1. What terms have been and are currently in use to describe the type of cross-sectoral structures that involve both non-profit and public sector partners, focused on tackling social issues or addressing public concerns? [used to generate search terms]

2. What methods have been used in studies aimed at exploring the effectiveness or outcomes of such structures?
3. What measurement approach was taken to measure effectiveness – were objective or subjective measures used?
4. What is currently known about the effectiveness or performance of these structures, and what gaps remain in our understanding of this issue?

SLR Q1.

The first question was addressed through a scoping review which sought to identify the range of terms used to refer to seemingly similar structures. An initial review of literature identified a multitude of terms such as “Inter-organisational relations” (Amsler and O’Leary, 2017) “inter-organisational collaborations” (Gray, 2000; Hardy, Phillips and Lawrence, 2003; Gazley, 2017), “Interorganisational networks”, inter-agency working, multisectoral collaborations (Glandon *et al.*, 2019), collaborative networks (Rethemeyer, 2005; Mandell, Keast and Chamberlain, 2017) collaborative governance regimes (Ansell and Gash, 2008; Emerson and Nabatchi, 2015) community partnerships (Asthana, Richardson and Halliday, 2002) “relational coordination”(McCullough, Eisen-Cohen and Lott, 2020) “purpose-oriented networks” (Berthod and Segato, 2019; Lemaire, 2020), “goal-directed networks” (Saz-Carranza *et al.*, 2014; Iborra *et al.*, 2018; Salignac *et al.*, 2018), and the increasingly common “governance networks” (Klijn and Koppenjan, 2012) and “collaborative networks” (Mandell, Keast and Chamberlain, 2017), all of which suggests that further work is still needed to agree common terms and refine understandings (Lemaire *et al.*, 2019).

The scoping study explored the terms in common usage historically and found that, based on a search on Google Scholar from 1960 to 2020, the use of the word ‘collaboration’ or ‘collaborative’ has become more common in recent years, and the term ‘collaborative partnership(s)’ is the most commonly used term overall. Searches for some terms such as ‘community partnership(s)’ yielded many results between 2001 and 2010 but have since waned in popularity. The term ‘Inter-organisational relations’ was popular up to 2000 but in more recent years, ‘Inter-organisational collaborations’ has gained prominence. Similarly, terms such as ‘Governance networks’ and “Collaborative Governance” have become increasingly popular since 2000. This scoping review

informed the search terms to be used for the systematic literature review carried out (discussed below).

2.3.1 Inclusion/Exclusion Criteria

To ensure transparency and replicability in the review process, it began with the formulation of four clear and precise research questions (above) followed by the development of a detailed protocol outlining the inclusion and exclusion criteria for selecting studies, the databases to be searched, and the search terms to be used.

Because governance networks exist in several different policy areas such as education, public health, disaster/crisis management or the environment/climate change, the focus was on governance networks with cross-sectoral or multi-agency involvement; focused on a public problem, social issue, or public service provision. The early scoping review found that there was no single term that could be used to identify the type of cross-sectoral network relevant to this research and that even the use of terms such as ‘governance network’ or ‘collaborative governance’, produced studies that were not cross-sectoral or were not focused on a public issue or service. Therefore, studies that did not have collaboration or cross-sectoral governance networks as the main focus of the research - in other words: business networks, supply chains, or studies focused on interpersonal social networks - were excluded, as were literature reviews and methodological or theoretical research.

The review included empirical research with a clearly specified outcome measure linked to the effectiveness, success or performance of a governance network. Only articles published in English were included (but articles from a wide range of geographical contexts were included). To facilitate a focus on the relevant type of networks, articles were filtered to include only those published in public management, public administration, organisation studies, management, and non-profit or voluntary sector publications, as well as topic-specific journals such as urban development or housing journals. Studies that focused on single-sector collaborations or studies that were not focused on effectiveness or outcomes were excluded.

TABLE 2.2 *INCLUSION AND EXCLUSION CRITERIA USED*

Limiters	Inclusion	Exclusion
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Time Frame	Articles published between 2010 and 2020	Before or after this time period.
Language and Geographical scope	Articles written in English, based anywhere in the world	Articles published in other languages
Study Type	Limited to empirical research	Not reviews or theoretical discussions
Discipline or Field	Formal inter-organisational governance networks or collaborative networks	Strategic, innovation, intra-firm competitive networks or organisational networks or social networks
Keywords	Must have a clearly specified outcome measure eg network performance, success or effectiveness. Must use combinations of keywords such as “governance networks,” “effectiveness,” “collaboration,” “evaluation” and their variants ¹ .	Articles that do not provide empirical data on the outcome measure.
Additional filters	The goal of the network relates to a public or social issue	Does not address research questions above, e.g. literature reviews, methodological papers
Type of Publication	Peer-reviewed journals in public management and public administration	Sources such as opinion pieces, letters, and non-peer-reviewed articles.

Having defined the inclusion and exclusion criteria, the next step involved carrying out a comprehensive search of the literature, searching multiple databases and sources to capture as many relevant studies as possible. Based on the scoping review discussed above, the search terms included inter-organisational (collaboration OR co-operation OR networks OR relations);

¹ The search term ‘Evaluation’ was added following comments from the PhD examiners.

collaborative networks OR partnerships; community partnership; interagency; collaborative initiatives; multi-organisational cross-sectoral collaboration and multi-sectoral collaboration; **and** effectiveness, outcomes, success, performance, impact, and results. A search was carried out in the following databases: ABI Inform, Academic Source Complete, ProQuest, Web of Science, JSTOR, and Google Scholar.

First the titles were screened to broadly identify the appropriate studies, to exclude duplicates and to ensure that the appropriate time-frame applied. This was followed by a more detailed review of the abstract to ensure that the article referred to an empirical study and that a clearly defined outcome measure was used. At this stage, any abstracts that did not provide methodological details and/or results were also excluded. Many studies that referred to 'network governance' rather than 'governance networks' were excluded at this stage because they did not refer to the type of cross-sectoral network that is under consideration in this research. The filtering of articles published in public management and public administration journals helped ensure that the included articles were relevant. Having concluded the selection of studies, the data extraction process began, which involved the systematic recording of key information related to the research questions.

2.3.2 Findings – SLR Questions 2 & 3

Database searches initially yielded more than one thousand records. When the above-mentioned limiters were applied (duplicates, not published in English, not empirical), 503 articles were screened, and a further 189 articles were excluded. The more detailed review of abstracts was carried out on a total of 314 articles and of those 75 were excluded because on further review, the network was not the appropriate type of cross-sectoral governance network. This left 239 empirical studies focused on the appropriate type of collaborative governance network, but 3 did not have a clearly defined outcome measure. Abstracts from these 236 articles were reviewed and 147 related to studies that were focused on describing or understanding the process of collaboration rather than measuring effectiveness. This resulted in a dataset of 92 relevant empirical studies **with clearly identified effectiveness measures**. These 92 studies formed the full dataset and these articles were analysed in detail and key information was recorded on the methods and units of analysis; the measurement approach (objective or subjective) and the findings or determinants of effectiveness (see Appendix 2 for a list of all studies reviewed).

Analysis of the studies found the following:

Methodology.

- 48 studies, or 52% of all studies, used a quantitative methodology - mainly regression analysis and the remainder were either qualitative or mixed methods.
- Of the Qualitative studies, 18 were Qualitative Comparative Analysis (QCA) studies and 7 were single case studies.
- 5 studies used only Social Network analysis and an additional study used SNA and QCA
- The remaining studies used document analysis, content analysis and a mixture of quantitative and qualitative analysis.

Measurement: Many of the studies used more than one type of measure.

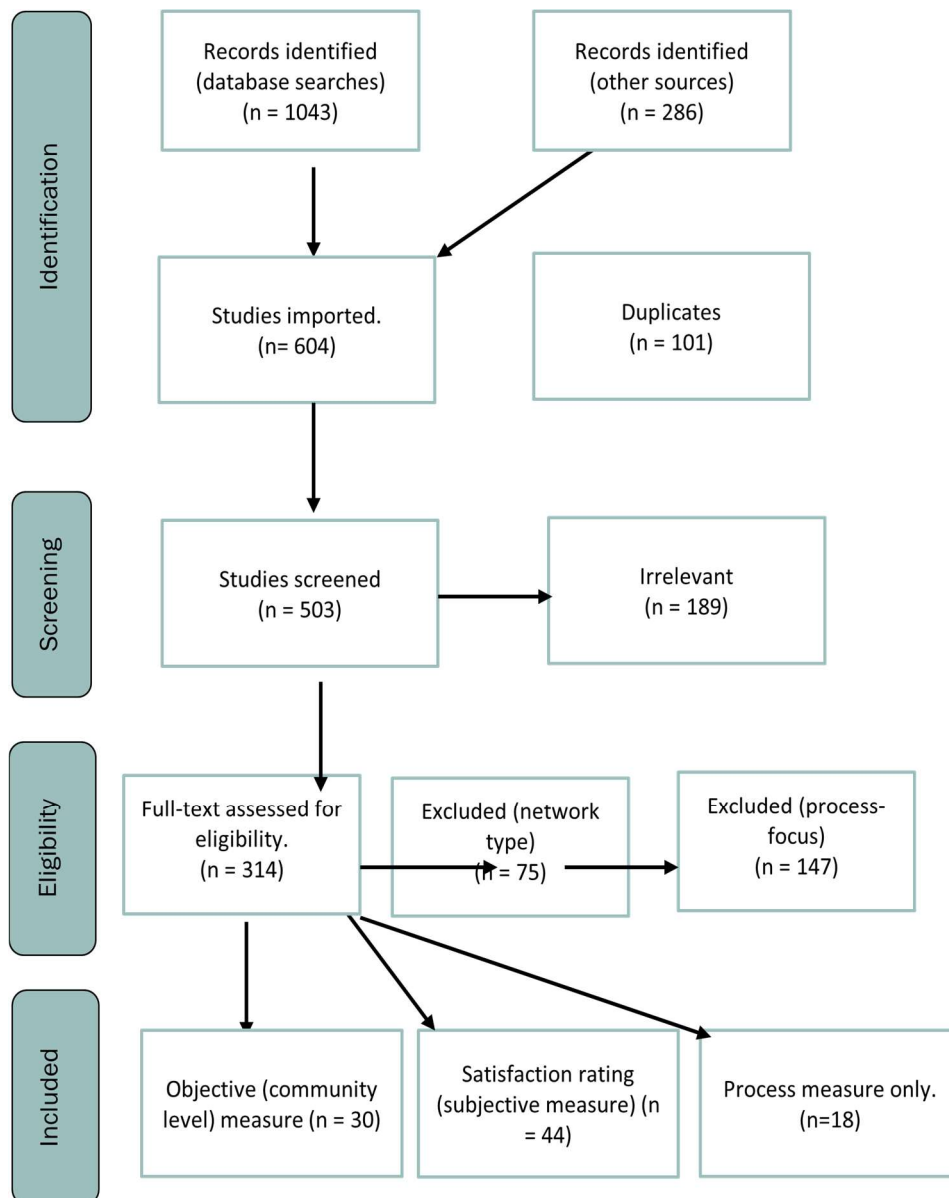
- 34 used a subjective effectiveness measure only.
- 10 that used both process and subjective effectiveness measures.
- 1 study used subjective and objective measures.
- 17 studies used only an objective measure of effectiveness,
- 12 studies used both objective and process measures.
- 18 studies measured effectiveness using only a process measure.

Studies focused on the influence of network-level factors on effectiveness, most commonly with a structural focus (network analysis) but often in combination with individual or organisational factors. The majority (60) studies - measured outcomes at network level, some (6) also using community-level indicators. An additional 19 studies measured outcomes for the organisations involved, 4 of which also used network-level measures (eg impact of network membership on organisational effectiveness), 1 study looked at outcomes using Organisation, Network and Community level indicators, 6 used only community-level indicators and the remainder used a mixture of individual level (3) or individual and network (3).

The majority of studies in our review focused on network-level factors or organisational factors, and while these studies have expanded our knowledge, the relatively small number of studies focusing on the role of the individual, and the factors that may increase or decrease effectiveness

at a collective level leaves a potential gap in our understanding. In common with other authors, we argue that an increased focus on the behavioural and individual “motivational underpinnings” would greatly increase our understanding of the inner workings of governance networks and collaborations (Keast and Mandell 2013; Das and Kumar 2011; Provan, Sydow, and Podsakoff 2014) and may help explain some of the inconsistency in findings such as that outlined above (Nohrstedt, 2018).

FIGURE 2.2 OVERVIEW OF STUDIES REVIEWED



Having reviewed these studies, the following conclusions can be drawn; it is no longer true to say that there is insufficient focus on outcomes (Ulibarri 2015) but there is a limited focus on the link between individual-level or behavioural factors in the measurement of performance or effectiveness, particularly at the community level. Much of the literature reviewed was descriptive, categorising and developing typologies to distinguish between networks on the basis of factors such as the intensity of their relationships, eg cooperation, coordination and collaboration (Mandell and Keast, 2017) or the nature of their goal. However, a substantial number of studies focused on the measurement of effectiveness using a clearly defined outcome measure.

While only a minority, a substantial number of studies evaluated effectiveness using only process measures such as collaboration motivations or the existence of collaboration, perception of trust, or level of goal agreement as the outcome measures. A small number of studies have gone beyond process measures to look at collaborative effectiveness from the perspective of the key stakeholders, measuring effectiveness at community level. A large number of studies use subjective measures, equating effectiveness with the satisfaction of network members or using their self-reported measurement to determine effectiveness. This may be due to data collection and other methodological issues. As discussed above, there is some evidence to suggest that subjective ratings may be influenced by biased perceptions (Bazerman and Chugh, 2005) or roles and engagement levels (Barile et al 2012).

Methodologically, small numbers were single case studies producing non-generalizable findings. However, increasing numbers of comparative case studies were observed and studies using Qualitative Comparative Analysis. Quantitative methodologies remain the most prevalent approach to measurement of effectiveness.

This review confirms the view that measurement of effectiveness is a challenging endeavour and one that is frequently dictated by practicality or the availability of data. While, historically, research in this area has focused on identifying the existence of collaboration, where collaborative activity is the outcome measure, this review suggests that new approaches to measuring effectiveness are gaining popularity.

2.3.3 Findings - SLR Question 4 - Effectiveness in Collaborative Networks

The studies summarised in this review collectively provide valuable insights into the determinants of effectiveness in collaborative networks and confirm many of the findings of the thematic review above. Findings on determinants of effectiveness can be categorised into a number of themes: Context and Environment, Resource allocation and management, Leadership and Management (including member engagement), Process or Collaborative dynamics (including factors such as trust and trust-building), and Network Structure. Some of the most significant findings are summarised below.

Context and Environment

Contextual factors were considered by a number of studies (in association with others) For example Raab et al (Raab, Mannak and Cambré, 2015) found that resource munificence and stability had an impact on outcomes. However Jacobsen (2013) presented a more nuanced picture. The study measured the impact of different contextual factors –resource munificence, size and history or age on outcomes and found that resources did not have a significant effect on service provision or ability to solve problems. Size was found to have some effect on one outcome (external power) but not on the others (service provision or problem solving) and age was found to have negligible effects on all three outcomes.

Gazley (2010) found that the particular policy area can influence outcomes as well as the characteristics of partnerships. They speculate that this may be due to variations in political or financial support, and in the complexities of the various partnerships. Dietscher (2017) found that contextual factors and in particular the existence of legal frameworks linked to the policy area (health promotion) had an impact on outcomes. Other studies identified the factors in the external environment such as capacity building including training, technical assistance, and capacity-building workshops. For example, Misener and Doherty (2013) highlighted the importance of building organisational capacity through interorganisational relationships to enhance programme/service quality and community presence in non-profit community sport organisations.

Resource Allocation and Management:

As has been noted in many earlier studies, the availability and management of resources were found to be critical for network success in 15 of the reviewed studies. Fair resource allocation

practices were shown to be critical in building trust and enhancing collaboration outcomes in several studies and helping ensure the efficient and effective use of resources, which in turn enhances the overall performance and success of the collaboration. Clear criteria and procedures for how resources are distributed and utilised and setting up metrics and feedback mechanisms to ensure the continuous monitoring of the use of resources helps ensure resources are being used effectively. Parent and Harvey (2017) highlighted the importance of partner-developed evaluations that consider the processes, impacts, and outcomes for participants and the overall project.

The selection of partners who bring complementary resources and capabilities that align with the network's goals was found to be important for effectiveness as it ensures that each partner contributes uniquely, avoiding redundancy and maximizing collective potential. Chapman and Varda (2017) found that the contribution of nonprofit organisations to public health networks impacted goal achievement by bringing in diverse resources and strong mission alignment. Cepiku et al. (2019) also found that different configurations of resource availability and network management led to high performance in UNESCO's Heritage Sites networks in Italy.

Cristofoli and Markovic (2017) found that clear governance structures and coordination mechanisms, such as setting up committees or roles specifically focused on resource management, were important for the effective management of resources, while Stadtler and Karakulak (2020), found that effective networks often have flexible resource allocation processes that allow them to respond to dynamic challenges without compromising collaboration effectiveness. This involves having contingency plans and being able to reallocate resources swiftly as needed.

Ensuring that resources are shared between members and allocated in a transparent way helps build trust and ensures accountability among network members. Fair resource allocation practices were shown to be critical in building trust and enhancing collaboration outcomes in several studies. The study by Langabeer et al. (2013) on emergency cardiovascular care demonstrated that interorganisational collaboration and resource sharing led to significant improvements in patient care outcomes.

Sustainability Planning to address long term resource needs, funding and support, was also found to be important for success. This involves forecasting future resource needs and securing ongoing

funding and support. Brennan et al. (2012) emphasised the need for preparation activities such as assessment and sustainability planning in community partnerships to implement successful active living programmes.

Drivers and Facilitators - Leadership and management practices were identified as key factors influencing the success of collaborative networks in 18 of the studies. Leaders play a key role in developing trust among network members, inclusiveness and ensuring commitment to the goals. Baker et al. (2011) found that leadership at both head office and member-site levels significantly influenced the performance and culture of employment services networks while Cristofoli and Markovic (2017) emphasised the importance of network management and formalised (over informal) coordination mechanisms in achieving high network performance. Similarly, Uster et al. (2020) found that inclusive governance, that treats all stakeholders fairly and equitably enhances the performance of collaborative networks with nonprofit organisations, building trust and creating a feeling of mutual respect.

Leadership can produce effective environments by behaviours such as developing shared visions and common goals, ensuring all stakeholders' voices are heard and transparently and fairly allocating resources among partners. The Alaska Fourth R project successfully used a shared vision to guide its multisectoral collaboration, which was critical for building trust among partners (Crooks et al., 2015). Retrum et al. (2013) found that consensus-building techniques successfully managed the breadth of public health collaboratives effectively.

Research has identified different types of leadership in collaborative settings. For example, the facilitative leader can successfully guide meetings, ensuring that all voices are heard and that the meetings are productive. The role of boundary spanners, who act as facilitative leaders, was found to enhance trust and network performance in urban governance networks (van Meerkerk and Edelenbos, 2018). Ensuring that regular and structured meetings take place, is a key role for the leader of an effective network. Regular meetings are necessary to facilitate ongoing communication, decision-making, and coordination among stakeholders. Ulibarri (2015) noted that principled engagement and regular interactions were key to successful collaboration in federal hydropower licensing.

The engagement and commitment of all members in the group is important for the success of collaborative networks. Inclusive decision-making processes and the consideration of diverse

perspectives in the allocation of resources, helps ensure that allocation decisions meet the needs of all members. Similarly, empowering stakeholders, by giving them meaningful roles and responsibilities within the collaboration, and involving all stakeholders in decision-making, have been shown to improved network performance (Uster et al. 2020).

The early involvement of stakeholders in the planning process has been found to be important to ensure their input shapes the collaboration from the beginning, thereby building ownership and commitment. Two studies focused on this important factor; Harting et al. (2014) emphasised the importance of early and active involvement of network actors to implement diverse intervention strategies. Crooks et al. (2015) found that inclusive engagement of all relevant stakeholders, including marginalised or less powerful groups, in the decision-making process, was crucial for the success of the Alaska Fourth R collaborative.

Leaders also play a key role in recognising the contributions of individual stakeholders to keep them motivated and committed to the collaboration. This was seen in the study by Yodsuwan and Butcher (2020) on tourism collaboration in Thailand. Similarly, several studies in the review suggested that providing incentives for active participation, such as funding opportunities, professional development, or public recognition can enhance engagement and commitment.

Processes or Collaborative Dynamics

Relational factors such as trust and communication emerged as one of the most fundamental determinants of effective collaboration across 20 of the studies reviewed. Trust underpins many other factors such as effective communication, shared goals, and mutual respect. It facilitates open dialogue, reduces conflicts, and encourages stakeholder commitment. Building strong relationships is essential for creating a collaborative environment where stakeholders feel valued, respected, and willing to compromise. Jones and Barry (2019) who found that trust and communication are essential for achieving synergy in health promotion partnerships, also emphasised that trust-building mechanisms, including developing mutual understanding, need to be built into the partnership-forming stage and sustained throughout the collaborative process. Cramm and Nieboer (2012) showed that active relational coordination among healthcare professionals successfully increased the effectiveness of the delivery of chronic care in disease-management programmes.

Encouraging a sense of responsibility among stakeholders to act in the best interest of the collaboration builds trust by demonstrating commitment and integrity. Similarly, holding stakeholders accountable for their actions and responsibilities ensures that trust is maintained. This involves setting clear expectations and following through on commitments. The study by Atouba (2019) highlighted the importance of responsibility and accountability in building trust among human services nonprofit partnerships. Accountability mechanisms were identified as key to building trust and ensuring effective collaboration in several studies, including Ulibarri (2015). Parent and Harvey (2017) suggested that evaluations developed and implemented by the various partners help in assessing and improving the partnership components of community-based programmes.

Regular interactions and relationship-building activities were shown to be crucial in fostering trust in collaborative networks. The importance of interpersonal relationships in trust-building was emphasized in the study by Klijn et al. (2016), which found that personal connections among network members enhanced trust. That Klijn study was one of several studies that highlighted consistent communication and action as trust-building mechanisms.

Consistently delivering on promises and commitments builds trust over time. Stakeholders need to know that they can rely on each other to follow through on agreed-upon actions. Demonstrating reliability through dependable behaviour and outcomes reassures partners that they can trust each other to meet their obligations. In the study by Atouba and Shumate (2019), reliability in prior experience and reputation contributed significantly to trust in nonprofit partnerships.

Effective communication strategies were shown to be critical in managing collaborations. Atouba (2019) found that communicative effectiveness enhances partnership outcomes. Being open and transparent about intentions, processes, and decision-making fosters an environment of trust. Transparency reduces uncertainties and suspicions, making it easier for stakeholders to collaborate. Cooper and Shumate (2012) found that transparency in information sharing helped address obstacles to collaboration among NGOs in Zambia. Similarly, encouraging open, honest, and frequent communication helps build trust by ensuring that all stakeholders are informed and can express their views. Tong et al. (2014) highlighted the importance of effective communication in fostering successful inter-agency collaboration for services to older adults. Taking the time to understand each other's perspectives, needs, and constraints builds empathy and trust. Jones and

Barry (2019) emphasized that trust-building mechanisms, including developing mutual understanding, need to be built into the partnership-forming stage and sustained throughout the collaborative process.

Structure: The structural aspects of networks, including their configuration and integration, were discussed in 12 studies. The degree of centralisation within a network was shown to impact its effectiveness. Raab et al. (2013) found that centrally integrated networks with stable resources are more effective. The density and breadth of networks were also significant. Retrum et al. (2013) found that higher network density correlates with positive public health outcomes, whereas excessive breadth might create challenges such as difficulty in reaching consensus. van Meerkerk & Edelenbos, (2014) found that boundary spanners positively impact trust and network performance in urban governance and Y while Yi, (2018) found that networks with high bridging and bonding social capital perform better. In conclusion, while network structure in terms of centrality and density were also found to be important, but there was less evidence of this in the studies reviewed.

2.3.4 Synthesis and Conclusion

The literature reviewed in the systematic literature review supported the findings of the thematic review. In essence, governance networks are multifaceted, and effectiveness is determined by a combination of interacting factors; strong leadership contributing to a shared vision, the engagement of all members and the development of equal, trusting and mutually respectful relationships between network members. Effective strategies for the involvement of all are necessary to ensure that all relevant parties are engaged and feel that their voices are heard and their contributions valued. Engaged and actively participating members enhance the network's effectiveness. Finally, the studies found that resources must be strategically managed and aligned with the network's goals. The significance of resource management for effectiveness requires a focus on complementary partner selection, clear management structures, transparency, resource sharing, continuous monitoring, long-term planning, inclusive decision-making, capacity building, and flexibility. The review found that process/subjective network-level results dominate and there were few studies that used objective data or measured outcomes at individual level.

2.3.5 Additional search

On the advice of the thesis examiners, an additional search was carried out adding the search term 'evaluation' to the network type and outcome terms. Using the same inclusion and exclusion criteria and applying a public management/public issues filter for the publications, an additional nine articles were found that were based on empirical studies evaluating effectiveness in governance networks and were not in the original SLR (see Appendix 2 for a full list of studies reviewed.) Many of the findings from these studies confirm the findings of those identified in the original SLR. For example, Nolte and Boenigk (2011) found that communication, trust, and experience were important contributors to effectiveness and that the 'lead organisation' type of governance structure is most commonly associated with success; Korthagen and Klijn found that environmental factors such as commercialized news and politics had a negative effect on both trust and perceived network performance (Korthagen and Klijn, 2014). Other findings not noted in previously reviewed studies include that by (Tønnesen and Tønnesen, 2015), (2015), in a case study with two cases, who found in one case that the network with the lowest stakeholder involvement and smallest structure has faster implementation and resource use, while the other case found that active use of mobilisation and coordination mechanisms applied to a wide set of actors was successful. Both approaches are effective in achieving network goals, but through different mechanisms.

However, interestingly two of the articles were related to research carried out by Barrutia and Echebarria (2019a, 2020), one of which will be discussed in this literature review in the section linking governance networks and identity (section 2.4). In their first article, the authors looked at three variables (network resources, image enhancement, and identification) for their ability to explain attitudes toward network participation. Their research found that identification has the strongest influence, creating a motivational mechanism merging personal and network identity. In their second, they extended this research, focusing on the level of participation in interactions. They found a link between participation attitudes and motivation and in seeking to develop a greater understanding of motivation, they also found that organisational-level internal motivations and managers' identification with the network are more powerful than external rewards for preventing free-rider behaviours.

When analysed using the same categories to answer the original research questions posed in the SLR, the findings of the methodological review were also confirmed. The majority of the studies

(6) used a quantitative methodology, the remainder were Social Network Analysis (1) and qualitative (2). The majority (7) measured effectiveness using self-report measures or perceived effectiveness with the remainder using process measures (1) and objective and perceived effectiveness (1). Finally, the majority measured outcomes at the network level, and one measured at both community and network level and the final two studies measured outcomes for individuals. In essence, the late-stage addition to SLR search confirmed the conclusions of the original search and added some strength to the argument for an examination of individual motivations and network identity. Having completed the additional analysis, the original overview of studies reviewed has been amended to take account of the now 101 reviewed articles.

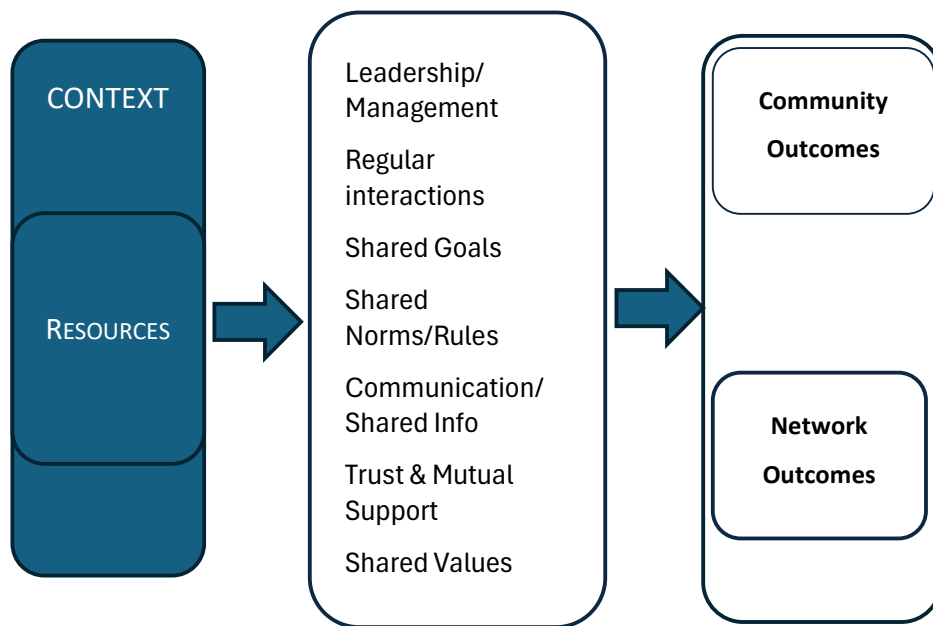
2.3.6 Conclusions from Stages 1 and 2

Determinants of Effectiveness and the potential for introducing 'Shared Identity'.

In conclusion, it is clear that much of the empirical research reviewed supports the findings of the thematic review. Many common features have been identified by scholars and the literature has identified a range of antecedents, drivers or facilitators, and determinants of successful collaborative dynamics. See Figure 2.1.

FIGURE 2.3 FINDINGS FROM SLR AND TR

Before the introduction of Shared Identity



The literature reviewed highlights the importance of considering contextual factors when assessing the effectiveness of collaboration in governance networks. For example, the nature of the issue at hand, the level of pre-existing trust among network participants, and the existing institutional and political context can all influence the effectiveness of collaboration in governance networks. Similarly, many factors relating to the external support and guidance of the network can drive collaboration behaviours. However, while context and the external environment undoubtedly matter, people have a long history of overcoming challenging environments when they are strongly motivated by necessity or desire. In the absence of guiding rules or external supports they can innovate or adapt when they are motivated to do so. Furthermore, the external context is – by definition – largely outside the control of the network participants and therefore could be seen as tangential to a study with the aim of identifying the critical levers that network managers and participants can use to enhance effectiveness. Therefore, it could be argued that what really matters, is what occurs between the network participants when they interact and the way in which network dynamics can influence motivation and commitment.

Structure is a key concept in literature on governance networks and an understanding of the structure helps identify how well the network can perform various functions such as coordination, resource sharing, and information dissemination. There is evidence that an analysis of structure can provide insights into the potential strengths and weaknesses of collaborative efforts. However, the extent to which network structure actually influences effectiveness, as opposed to merely describing the interactions within a network, is a subject of debate and critical analysis. Networks are dynamic and evolve over time, and authors such as Nowell & Kenis (2019) have suggested that network performance should be understood as an ongoing process influenced by evolving interactions and adaptations. Therefore, static structural measures may not adequately capture this dynamism. Others such as Agranoff & McGuire (2001) highlight the importance of human factors in network management, which cannot be captured solely by structural metrics and it is possible that an overemphasis on network structure can lead to neglecting other critical factors such as leadership, trust, and context or failing to capture important qualitative aspects such as the motivations and perceptions of network actors.

Leadership and management are undoubtedly central to the workings of governance networks and evidence suggests that the leader can steer the network towards the achievement of common goals, helping to ensure that the different stakeholders collaborate or coordinate their activities and ultimately perform effectively. Leaders can be instrumental in trust-building (Agranoff and McGuire, 2001). In addition, strong management practices can provide the necessary infrastructure for network coordination, such as setting agendas, mediating conflicts, and ensuring accountability among network members (Provan and Kenis, 2008). However, it is also possible that in the absence of strong, facilitative or adaptive leadership, good governance practices could, to some extent, achieve the necessary conditions for effective collaboration. For example, Provan and Kenis (2008) discuss the idea of "shared governance" where network participants collectively manage the network without a single, dominant leader. In such arrangements, the emphasis is on coordination between individuals and organisations, mutual support, and trust among network members, rather than hierarchical control. With a governance structure that creates a self-regulating system – establishing norms, clear communication channels and accountability mechanisms, - the group may collaborate and spread the leadership functions across the network membership to achieve goals in the absence of a single strong leader (Sørensen and Torfing, 2009). Good governance does not remove the need for a leadership

role, instead the role is shared, with different network members taking on leadership responsibilities as needed (Ansell & Gash, 2008).

The frameworks reviewed above have synthesised knowledge and presented a broad tapestry of interlinked and reinforcing factors. Nevertheless, they have not specified the most important factors, the ones without which success or sustainability is impossible. Many studies have found that ‘trust’, or more accurately the broad range of factors that contribute to the development of positive, equal, mutually supportive relationships, are an important determinant of effectiveness. One thing that is needed is a greater understanding of how people can be motivated to overcome the challenges of working across boundaries - what is the mechanism that leads to greater engagement and sustained effort. There is evidence that even in legally mandated networks, *participation* may be achieved but not engagement, in other words people may attend meetings but not commit to goals or collaborative activity. (Kelman, Hong and Turbitt, 2011).

Furthermore, the literature has established that governance networks are frequently developed based on interdependence—an understanding that each member of the group brings knowledge and information that others need. They may start with agreed-upon goals, or the goals may be developed as they interact, but successful groups are likely to share information and knowledge to achieve these goals. Their interactions are managed by either norms or formally agreed rules, and by working together and providing support to each other in the achievement of the goals, they build trust, which generates a stronger commitment to the network, and a convergence of values may occur, which leads to further change within the group.

Some have suggested that this change is linked to the creation of a new entity with its own identity, made up of the combined resources of the group, *[It] is transforming in the sense that you don't leave the same way you came in. There's some sort of change. You give up part of yourself...Something happens differently because of the process*” (Thomson and Perry, 2006 p. 20)”. Identity is a concept that is deeply motivating for people, tapping into their core concept of who they are and contributing to an increase in their self-esteem.

The nature of this change from a collection of individuals to a cohesive group with its own identity remains largely unexplored territory in the network literature and it has been suggested that the process of change between individuals is not fully understood (O’Leary and Vij, 2012) and warrants further study. The next section will review literature that provides a greater

understanding of the change that can occur when people interact and how this may or may not lead to a new understanding of identity.

2.4 Phase 3 - Linking Governance Networks and Identity Literatures

Many of the concepts related to the development of relationships in a network, such as trust-building, the creation of a common understanding of a problem, convergence on a common set of norms, and the development of shared values, have also been found to be central to the process of identity formation (Ashforth, Harrison and Corley, 2008). For example, the study by Klijn et al. (2016) found that trust is essential to good collaboration. The existence of trust is significantly enhanced by factors that could be linked to shared identity among network members. The sharing of goals helps align the efforts of different organisations within the network, facilitating better coordination and resource utilization. In addition, regular interactions and a joint sense of purpose can in turn enhance the feeling of sharing an identity. Shared identity fosters a sense of cohesion and trust among network members (Garrison *et al.*, 2010), enhancing the internal collaborative dynamics that are crucial for network effectiveness.

This overlap between the public management and psychology literatures suggests that the concept of identity may provide a route towards a greater understanding of the process of change mentioned by some (Thomson and Perry, 2006; O'Leary and Vij, 2012). First, it is important to consider why identity might be a valuable concept to consider in a discussion of effectiveness in governance networks. To explore how shared Identity could fit into models of effectiveness in governance networks, the third stage of the literature review looked at the specific areas in which a number of key concepts linked to effectiveness overlap with psychological literature discussing identity formation.

Decades of research suggests that identification is linked to a range of positive outcomes, best captured by the quote by Postmes and colleagues, *"The quality of performance was related to the emergence of shared cognition and the development of a (superordinate) sense of group identity, both of which went hand in hand"* (Postmes, Haslam and Swaab, 2005). At the organisational level, it has been found to lead to a range of outcomes; greater employee compliance, greater job satisfaction (Ashforth, Harrison and Corley, 2008), work motivation (Van Knippenberg and Van Schie, 2000), wellbeing (Shaw and Allen, 2009), self-esteem (van Dick and Haslam, 2012) and what

has been described as 'organisational citizenship' behaviours (Organ, 2009). These are discretionary activities that are performed by the employee and contribute to organisational effectiveness but are not specifically rewarded (Smith, Organ and Near, 1983). In a study that compared the impact of identification with either the community or an organisation, it was found that people who identified strongly with their organisation were more likely to perform organisational citizenship behaviours, which in turn are associated with increased performance (Nielsen, Hrivnak and Shaw, 2009) while those who identified with their community were more likely to carry out pro-social behaviours (Kane, Magnusen and Perrewé, 2012).

Engendering a sense of belonging in the workplace has been found to increase loyalty and reduce turnover (Ashforth, Harrison and Corley, 2008). For example, it has been found that when an individual identifies with a group, they can sacrifice personal resources, not only for the good of the group as a whole but also for individual group members (Korschun, 2015). There is evidence that individuals who define themselves based on a strong group identity are more likely to show stronger long-term commitment to group projects ((Haslam *et al.*, 2006); while at the group level, (eg. work team) identification is linked to lower levels of conflict within the group as well as higher cohesion and lower attrition (Fiol *et al.*, 2005). Research on social identity in multi-team systems explores the impact of multiple, shifting identities and offers a perspective that is relevant to this research. According to Connaughton *et al.* (2012), individuals working in an MTS belong to their component team as well as the larger multiteam system and they engage different identities and make decisions based on the values and goals of these different identities (Porck *et al.*, 2019).

One of the most recent empirical studies on identity in public management literature compared the relevance of different theories for their ability to explain the motivation to collaborate in a governance network. The research, carried out with a sample of 605 municipal managers, tested three theories: resource dependence, social exchange, and social identity, represented by three variables: network resources; image enhancement; and identification. As hypothesised, each of the three was found to explain collaboration motivation to some extent, but Social Identity Theory (SIT), represented by identification, had the strongest influence on participant attitude. Furthermore, the study found that participants who identified with their networks merged their personal identity with the identity of the network and received a boost to their self-esteem in parallel to the achievements of the network (Barrutia and Echebarria, 2019). The next section will consider specific elements of the frameworks discussed above (Section 2.2.2) and review the

overlap between public management literature and features of identity discussed in psychological or organisational psychology literature.

2.4.1 Shared goals

As discussed in above, in an inter-organisational context, as representatives of different organisations come together to form a governance network, an early task is to agree on the goals and seek commitment to achieving them. In the model proposed by Ansell and Gash (2008) shared motivation and the importance of a common mission, are central to the achievement of goals, both of which are central to the concept of shared identity. Similarly, Bryson et al. discuss the importance of a shared understanding and common purpose in their model.

In one of the earliest conceptualisations of a shared collective identity, Horton Smith (1967) offered a parsimonious definition of group membership. In it, he argued that the essential features of belonging to a collective are: the perception that members share a property or feature with others in the group; that this common feature is seen as “present and important” and is experienced through a shared goal; and that physical similarity and proximity in space and time may also serve to produce the sense of belonging. The sharing of a goal is therefore an important condition for the development of a collective, but this common property must be acknowledged by the members of the group.

2.4.2 Regular Interactions

Social interdependence theory (Johnson and Johnson, 2005) offers a way of understanding the relevance of common goal setting for the achievement of outcomes. It suggests that the way goals are structured influences the nature of the interactions between individuals, which in turn produces shared outcomes. In the decades since its first publication (Deutsch, 1949), empirical evidence has provided support for social interdependence theory and shown that positive interdependence has a greater effect on outcomes than group membership (Lew *et al.*, 1986; Tjosvold, 1986). The importance of shared goals has been established in organisational literature, being linked to work team effectiveness (Aubé and Rousseau, 2005). However, it is also recognised that there may be a conflict between the achievement of personal goals and those of the workgroup. In research that tested the link between personal goals, work goals, and identification, it was found that when an individual recognised that their personal goals were

widely shared in the group, they were more likely to identify with the group, and any conflict between personal motivations and group goals was reduced (Zhang and Chiu, 2012).

Literature suggests that as people interact, they change their own identity and their perception of the identity of others. “Each party experiences and interprets the acts—including speech acts—of others and shifts (or reinforces) their sense of the others’ identities and their sense of how they are being identified by others” (Beech and Huxham, 2003). Thomas et al. (Thomas, McGarty and Mavor, 2016) carried out research that showed that interaction in small groups strengthened the sense of connection to other group members and also increased the importance of group membership to one’s self-definition. It has also been argued that through physical proximity in space and time, interactions may serve to produce a sense of belonging among members (Horton Smith, 1967) which is linked to the development of a shared identity.

2.4.3 Shared Norms and Agreed Rules

Group norms play a pivotal role in shaping the emotional landscape of work groups. Norms, which are the shared expectations and standards of behaviour within a group, influence behaviours and the way emotions are expressed, perceived, and managed. Understanding and addressing these norms can significantly impact emotional connections within the group. Bryson, Crosby and Stone (2006) argue that norms are part of the network governance that is developed as members of the networks interact and develop values, norms, trust and “enabling social mechanisms” (p.49). Emerson and Nabatchi (2015) also include norms in their framework as part of the Collaborative Governance Regime and in particular the type of “intentional institutional and procedural norms and rules that foster collaboration” (p.721).

This is supported by research in organisational behaviour, which found that in the creation of hybrid team cultures, the emergence of a shared culture followed a set of mutual interactions guided by “rules, norms, expectations, and roles that team members share and “enact”. The group then based their common sense of identity on that shared culture, which facilitated team-interaction and performance, and while there was no requirement to completely share all values and expectations, “significant need overlap” was considered important (Earley and Mosakowski, 2000).

The development of group norms is one of the key stages in the formation of groups proposed in Tuckman’s “forming, storming, norming, and performing” (Tuckman, 1965) and has been

recognised since then as one of the main ways that group members differentiate themselves from others, regulating their thoughts and behaviours, influencing group communication and decision-making, and developing a group identity. Some of these norms can enhance the performance of the group by promoting more open discussion, while others, such as evaluation apprehension or production blocking (Paulus *et al.*, 2002) can act against the development of a cohesive or innovative group. Among the key characteristics of a network are that the participants are interdependent and that decision-making is horizontal rather than vertically organised (Cheng and Voets, 2019).

Emotional expression norms define the acceptable ways for members to display and communicate their emotions within the group. For instance, in some work cultures, there may be norms encouraging open emotional expression and sharing, fostering a climate of psychological safety where members feel comfortable expressing their feelings without fear of judgement or backlash. Conversely, in other settings, there may be norms that discourage the open display of emotions, leading to emotional suppression and potential hindrances to the development of emotional connections. Affective surveillance, a concept proposed by Barsade and Gibson (1998), refers to the members' monitoring of emotional expressions and the implicit or explicit enforcement of emotional display rules within the group. This surveillance can create a ripple effect, shaping the emotional climate and impacting the dynamics of emotional connections. Understanding the interplay between affective surveillance and emotional norms is essential for creating an environment conducive to emotional connectedness (Fischer and Manstead, 2008; Barsade and Knight, 2015).

While it is accepted that multiple identities can successfully co-exist, these identities need to be carefully managed when engaged in collaborative activity. In an inter-organisational context, the network identity is formed by the interaction of the individual, organisation, and network levels but is... “enacted and reproduced by joint operation manuals, boundary-spanning activities, interorganisational committees, and other coordination and control mechanisms (Rometsch and Sydow, 2007, p. 22). Not all identity dimensions will be central to the individual, and they may be engaged at different times or may even be incompatible with each other, leading to potential conflict for the individual (Brewer and Gardner, 1996). In their study of the tensions created by the interactions between collaborative and non-collaborative identities, Kourti et al. (2018)

argued that ongoing 'identity work' or foregrounding different identities, is necessary in order to support collaboration (Kourti, Garcia-Lorenzo and Yu, 2018).

Raab and Kenis (2009) suggest that a collective network identity can be observed among those working in whole networks as representatives of their organisations, which may manifest in the use of shared symbols and artefacts such as logos or joint marketing (Bechky, 2006). They see identity as a "structural property "that emerges from the (inter)organisational practises of network members when answering the question 'who are we as a network'" (Rometsch & Sydow, 2007, p. 31 quoted in Raab and Kenis, 2009). Examples from commercial networks such as airline alliances are presented as evidence of symbols and logos being used to create "a common orientation across organisational boundaries (Raab and Kenis, 2009) Ungureanu et al. (2020) found that the use of material artefacts and the establishment of what they called a 'swift identity' helped the network overcome early conflicts, ultimately increasing the strength and stability of the collaboration. However, it is unclear whether the use of symbols is necessary for the creation of a shared identity in an inter-organisational context.

2.4.4 Communication and Shared information

Effective communication is critical in governance networks to ensure that all stakeholders are informed, their voices are heard, and decisions are made collectively. Ansell and Gash argue that 'face-to-face dialogue' is a vital part of the process that starts with an exploration of mutual gain and then becomes central to the building of trust, the development of a feeling of mutual respect, a shared understanding, and a commitment to the process (Ansell and Gash, 2008). Evidence from research on team performance has suggested that the sharing of information between members of a team is central to the process of collectively organising the shared resources of the group. A meta-analysis carried out on team information sharing found that information sharing was important for performance, cohesion, decision satisfaction, and knowledge integration (Mesmer-Magnus and DeChurch, 2009). In a series of experiments, Swaab et al. (2007) found that communication and the sharing of information led to stronger group identification and the development of shared cognition.

From a relationship-building perspective, according to research on the formation of identity in a new market, companies tend to minimise their organisational distinctiveness to create a collective identity (Navis and Glynn, 2010). This type of behaviour was also highlighted by Emerson and

colleagues in their framework, which acknowledged the role of boundary spanners in reducing the differences in culture between organisations in networks (Emerson, Nabatchi and Balogh, 2012). One of the key devices for the building of relationships and the creation of collective identity is language (Hogg and Rinella, 2018). The role of discourse has been central to much of the research on inter-organisational identity formation. Through their conversations and discursive practises, members of the group first create a collective identity by applying various social categorisations on the basis of sameness or difference, and then they recreate this identity and translate it into joint action. “identities are thus understood as the effects or outcomes of particular positioning acts, performed within conversations” (Tomlinson, 2008, p.1004). The participants in the group “...produce a discursive object that refers to themselves as some form of collective, rather than a set of disconnected individuals or as a group of organisational representatives” (Hardy, Lawrence and Grant, 2005), in other words, they talk of ‘we’ rather than ‘they’. Hardy and colleagues (2005) examine the link between effective collaboration and the discursive practises of the participants. They highlight two types of conversation that are critical to the formation of a collective identity – those that unite participants around a common issue and those that connect the individual participants directly to each other – either generalised or particularised membership ties. They go further to argue that different styles of ‘talk’ are necessary to produce effective collaboration; either cooperative or assertive, and that it is the balance between engagement with the positions and interests of others and the articulation of one’s own that produces the synergy necessary in collaborations (Hardy, Lawrence and Grant, 2005).

The process of identity formation can frequently be focused on drawing distinctions between ‘us’ and ‘them’. However, in an ethnographic case study, Ybema et al. (2012) found that the development of mutual respect through discursive practises succeeded in “constructing identity by deconstructing differences” (p.48). By adopting a “‘thin’ notion of identity, they aimed to level out hierarchical difference by constructing an inclusive ‘we’ in their talk of personal relationships (Ybema, Vroemisse and Van Marrewijk, 2012)

Postmes et al. (2005) argued that it was through communication, in particular through “...the alignment of individual opinions, attitudes, and perspectives to generate consensual group perceptions” (p.10) that participants in small ad-hoc groups, without any long-standing history or

even any clear future, were able to create what they called a 'situated social identity' (p.10) which articulated the idea of who they are as a group and what they are striving for.

2.4.5 Trust and mutual support

Trust is one of the most fundamental building blocks in the development of social relations and has long been of importance to scholars in organisational psychology and organisational behaviour. The development of trusting relationships has been well established as an essential feature in research on governance networks (Berardo, 2009; Klijn, Edelenbos and Steijn, 2010; Getha-Taylor, 2012; Jacobsen, 2013; Henderson and Smith-King, 2015; Opolski, Modzelewski and Kocia, 2019). There is some evidence that the existence of trust promotes effective decision-making and problem-solving during meetings (Lopez-fresno and Savolainen, 2014; Hayashi, 2013). When individuals trust each other, they are more willing to work together, share resources, and support each other's goals. This leads to better coordination and alignment of efforts (Dirks and Ferrin, 2001). Trust promotes more respectful and constructive interactions, which in turn leads to the creation of a supportive and inclusive atmosphere where everyone feels valued and heard and impacts meeting effectiveness (Jones and George, 2007). Trust is centrally linked to identity formation and can be both a cause and a consequence. – people who share similar values can develop a collective identity, which results in a trusting bond between them, while trusted individuals can often also be those with whom one identifies. Many of these features of collaborative dynamics are cyclical and influence each other. For example, repeated interactions in collaborative relationships develop mutual knowledge and common experience, which increases the potential for trust development (Child, 2001).

2.4.6 Value Convergence or Shared Values

Longstanding psychological research has established that when people join groups, their frames of reference frequently converge (Sherif, 1937). Building on research that looked at how group values converged through communication, which led to group members achieving consensus on goals (Ashforth, Harrison and Corley, 2008; Smith and Postmes, 2011), Meeussen et al. (Meeussen, Delvaux and Phaet, 2014) carried out a longitudinal study to explore the relationship between shared values, or value convergence, and shared identity. They found that value convergence was part of a process that developed through mutual social influence between group members. Evidence from a case study of a Finnish infrastructure alliance project suggests

that even temporary inter-organisational projects go through stages of identity formation and value convergence. The project partners started by articulating a joint vision for a collaborative project before converging on a mutually accepted set of values and a shared collaborative mentality (Hietajärvi and Aaltonen, 2018).

Based on the evidence outlined above, it can be theorised that the conditions linked to effectiveness in a governance network overlap conceptually with the formation of a shared identity. By establishing a link between shared identity and the factors that are central to the development of a functioning and effective network, it may be possible to unite many of these into the single concept of shared identity in order to develop a modified model that may resonate with practitioners grappling with the challenges and complexities of managing governance networks. This study hypothesises that, in order to increase effectiveness, network managers must aim to develop a shared identity. In the next section, the concept of identity was explored in greater detail; focusing on its definition from different theoretical perspectives and on the cross-disciplinary evidence to explain how identity forms in a small group context and how it can potentially contribute to greater effectiveness.

In conclusion, in the academic literature on network effectiveness and collaborative governance, the concept of shared identity may be implicit but it is rarely explicitly stated. However, several frameworks and theoretical models include elements that closely relate to or encompass the idea of shared identity. These include aspects of collaborative dynamics such as shared goals, common purpose, mutual understanding, or collective commitment. In addition, the impact of shared identity in a group increased key elements such as trust, cohesion, communication, and goal alignment, which are central to these frameworks, creating a positive, reinforcing cycle of behaviours that, evidence suggests, is linked to effectiveness.

2.5 Identity and Identification

Understandings of the concept of identity can differ when applied at different levels or in different contexts. For example, at the micro or individual level, it has been defined by Tajfel (1974) as... 'the individual's knowledge that he [or she] belongs to certain social groups together with *some emotional and value significance* to him [or her] of this group membership' (p. 31). Tajfel's definition has been widely used in literature for both group and social identity (Ozeki,

2015) at the individual level. This definition suggests three major components; cognitive (knowledge of belonging to the group), evaluative (the significance of belonging to the group), and affective (emotional importance of the group) (Ellemers, Kortekaas and Ouwerkerk, 1999).

Tajfel's Social Identity Theory (SIT) was further developed by Turner and colleagues (Turner *et al.*, 1987), who sought to take a broader view of the individual in a group context. They distinguished three levels of self-categorization; the superordinate category of the individual as a human being (or human identity), the intermediate level of one as a member of a social ingroup as defined against other groups (social identity), and the subordinate level of personal self-categorizations based on interpersonal comparisons (personal identity).

According to Ashforth and Mael (1989), one of the key pillars of social identification involves a desire to distinguish oneself on the basis of one's group membership and preferably to feel 'better' than the groups to which one is compared. However, the comparison aspect of "ingroup favouritism" is not inevitable and has been found to be dependent on the strength of identification with the group; the extent to which the context allows for comparison with other groups; and the relevance of a comparison group (Haslam and Ellemers, 2005). It is as yet unclear how this 'in-group/out-group' process is relevant in the formation of identity in a governance network, operating as they often do without obvious competitors or comparators.

Ashmore and colleagues (2004), arguing against the use of the term 'social identity', suggested that all identities are socially constructed; "they acquire their meaning and significance only within a context of social relations between people" (Ashmore, Deaux and McLaughlin-Volpe, 2004 quoting Simon 1997 p.321). Instead, they suggest, the term 'collective identity' more appropriately distinguishes the concept from other forms of identification, such as 'relational selves or social roles'. The framework developed by Ashmore et al. (2004) also included a behavioural dimension, suggesting that actions such as language usage are also part of what is meant by collective identity and that identification with a group not only offers an understanding of who one is but also how one should act (Lok, 2010).

In one of the other main theoretical approaches, - Identity theory (IT) - identities are seen as "internalized role expectations" (Stryker and Burke, 2000 p.286) linked to social roles or the "expectations attached to positions occupied in networks of relationships". Stryker and Burke assert that people have many identities, and they introduce the concept of identity salience:

people organise their identities in a hierarchical manner, and the salience of an identity reflects the person's commitment to the role associated with this identity. From this perspective, identity can be seen as a multilevel construct that "...shapes, sustains, and steers individuals...and collectives" (Patvardhan, Gioia and Hamilton, 2015, p 405) within a social system. At the individual level, it is linked to the concept of role, which carries with it a set of behavioural expectations linked to values, goals, beliefs, norms, and interaction styles (Järventie-Thesleff and Tienari, 2016), while at the group or network level, identities can be seen as 'cognitive categories' used to understand and classify different organisational forms (Hsu and Hannan, 2005).

In seeking to apply some limits to the use of identity as a concept in the study of governance networks, we distinguish between identity that is formed from pre-existing, relatively static social categories, such as gender and ethnicity, and the concept of 'shared identity' that relates to an emergent group identity, derived from roles, interactions, opinions, or attitudes that are fluid and changeable. As discussed above, identities can vary in importance from the essential defining identity (or the 'who am I') to temporary or assumed identities that change as a person is promoted or adopts a particular political perspective. In the context of governance networks, the temporary or 'situated' identity was be most relevant, and members of these networks was possess multiple identities, each existing simultaneously and becoming salient under different circumstances and as an individual assumes different roles. (MacLean and Webber, 2015).

To summarise, as these two major theoretical perspectives, Identity Theory (Stryker and Burke, 2000) and Social Identity Theory (Tajfel, 1974), have evolved, there has been a growing acceptance that individuals may assume numerous identities as they move between different roles, and as they do, the identities that are linked to them are internalised and revised. This process of interpretation and internalisation is conceptualised as 'identity work' (Alvesson, Ashcraft and Thomas, 2008). While some identities may possess central and enduring characteristics, others may come and go.

In addition to distinguishing between the different theoretical perspectives that explain how and why an individual may assume an identity, for the purposes of this study, a distinction also needs to be made between identity at an individual level and identity at a group level. While it is impossible to ignore the impact of individual-level characteristics in a group, we are primarily interested in group identity at the group level, as proposed by Hogg (1982) and Ozeki (2015). The literature on social identity theory (Tajfel 1974) focuses on the categorizations people use to

define themselves either as individuals (Turner, 1982) or through their membership in different social groups (eg racial, gender or role identity). The social identity literature frequently discusses inter-group differentiation with the 'us' and 'them' terminology (Messick and Mackie, 1989). The 'identity' referred to remains at an individual level and relies to some extent on homogeneity, whereas group-level identity relates to that which occurs through a process of convergence—developing a shared understanding of who members of the group are and what they are about as a group. The groups being discussed in this research are by their nature heterogeneous, and while the members may share some basic characteristics (eg nationality), these characteristics are largely irrelevant from the point of view of group effectiveness or cohesion.

At the organisational level, a body of literature distinguishes between identity, image and reputation (Brown *et al.*, 2006), and links identity with brand, which introduces the expectation that identity must be externally perceived (Burmann, Hegner and Riley, 2009). The most widely used definition of organisational identity (Whetten and Albert, 1985) highlights concepts of centrality, uniqueness and endurance as being the essential components of an organisational identity. As the majority of the members of the networks in this study participate as representatives of their organisations, it is hypothesised that the existence of a strong identity at the organisational level, could act as a counterforce against the process of identification to the network.

Finally, at the network or group level, literature distinguishes between common-identity and common-bond groups based on the source of the individual's attachment to the group. In common-identity groups, members are committed to the group itself, whereas in common-bond groups, group commitment was based on a connection or attraction to other members of the group (Prentice, Miller and Lightdale, 1994) However, these concepts have not been further explored in this study.

The terms 'group identity' and 'shared identity' have been used frequently without definition, leading to multiple interpretations of the same term. Group identity has been defined as "awareness of and attraction toward an interacting group of interdependent members, by self-identified members of that group" (Henry, Arrow and Carini, 1999). This definition offers a tripartite conceptualisation of group identity, which is made up of cognitive, affective, and behavioural dimensions, but differs from the social identity definition in its omission of the 'value

significance'. However, while the tripartite conceptualisation is useful, it again focuses on the group from the perspective of the individual.

Rather than group identity being a composite of the 'essential defining identity' (or the 'who am I') of its members, instead a more dynamic perspective sees group identity as emerging from the interactions and relationships developed over time through the development of a shared cognition or understanding of what the group is about (Swaab *et al.*, 2007).

These identities may differ in importance, and in an inter-organisational or governance network, it can be assumed that as individuals join the network, their personal and organisational identities are likely to be most salient. At the outset, the network offers minimal opportunity for identification and multiple opportunities for conflict between different identities, such as the individual's organisational identity and the nascent identity of the network. The identity of the network was most likely remain of lesser importance when compared with a person's essential defining identity or, indeed, their organisational identity. However, we argue it can temporarily increase in salience when the individual members act in accordance with the expectations of their role as network members before reducing in salience again when the individual assumes the role associated with their organisational identity.

While organisational identity was often be developed or defined at a management level and communicated in an overt way to employees, the process of identification is neither assumed nor inevitable in an inter-organisational context. However, there is evidence that governance networks do establish a shared network identity over time. Having established the broad theoretical structure underpinning the concept, the next section was now consider how the process of identification can be achieved according to relevant literature.

2.5.1 Identity Formation and Group dynamics

In this section, we delve more deeply into the process of identity formation, with the aim of understanding the psychological processes that are at play when people interact in a group setting and the reasons why the development of a shared identity may lead to greater network effectiveness. Although the formation of identity has not been the focus of extensive scholarly attention in public management, evidence from social psychology, group dynamics, and sociology has clarified many of the concepts that are linked to the creation of a shared identity. While it cannot be assumed that the process of identification within an organisation can readily be applied

to an inter-organisational context, this section was review evidence from both organisational and inter-organisational research.

Identification in a group context has been defined as “the perception of oneness with or belongingness to some human aggregate” (Ashforth and Mael, 1989 p.21). To understand how a perception of oneness or belongingness may develop in a governance network, from a psychological perspective, we need to understand the fundamental need humans have to establish a shared reality with others. There are two intertwined dimensions – cognitive and affective, both of which are reinforced or activated by the behavioural dimension (Henry, Arrow and Carini, 1999). To achieve this shared reality, they seek to establish a commonality between their inner states and those of others, and to achieve this, they must experience a subjective sense of sharing that relates to a task or activity. (Echterhoff, Higgins and Levine, 2009).

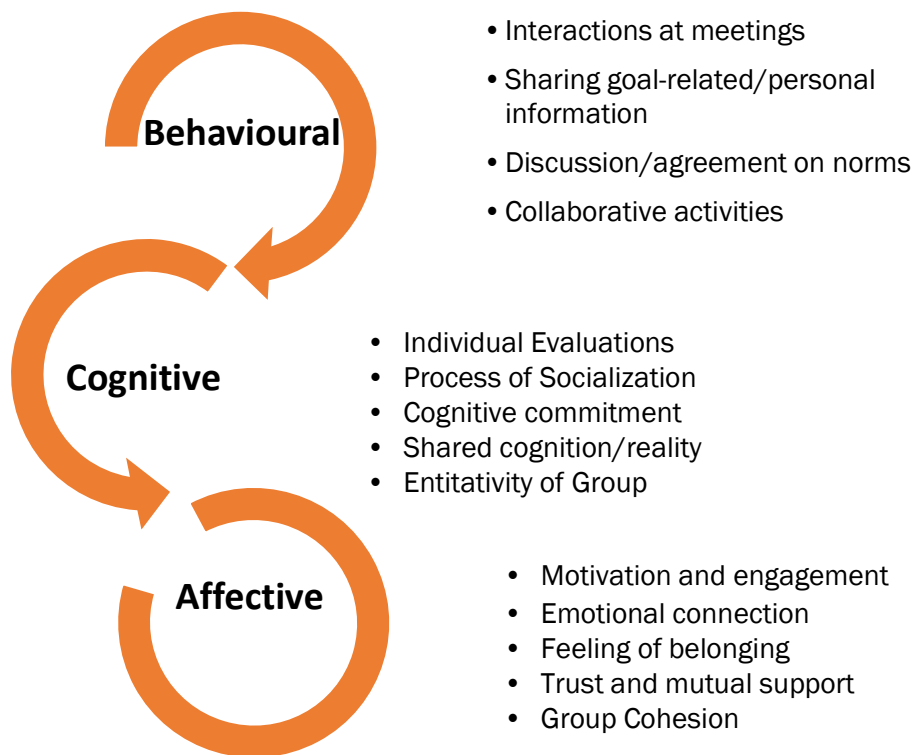
In organisations, identity formation can be achieved either by a ‘top down’ or ‘bottom up’ process involving ‘sense-breaking and sense-giving’ (Ashforth, Harrison and Corley, 2008). In one of the earliest studies to focus on the approaches used by organisations to encourage identification, Di Sanza and Bullis (1999) argue that organisations first use what they call the ‘common ground strategy’, which involves a person linking in an overt way with the organisation through shared values (e.g., fairness), goals (e.g., success) or by the organisation offering an “identity” (e.g., company-sponsored clubs) (p. 148). In the second part of the process, the organisation might portray outsiders as a threat or problem, which promotes identification by uniting “against a common enemy” (p. 148). The use of “we” can also play a part in promoting identification “as an appeal to identification between parties who may have little in common”. Other common devices used as part of the ‘common ground strategy’ include drawing attention to or praising the contribution made by an individual; a show of concern for the individual; articulation of the values that it is assumed are shared by all in the organisation; description of services or activities offered to members or praise for the organisation from those inside or outside the organisation. (DiSanza and Bullis, 1999 p. 149). This suggests that the process of identity formation is dynamic and requires management.

In an inter-organisational context, the active pursuit of a shared identity may start by developing a sense of belonging among participants, defined as “...a subjective feeling of value and respect derived from a reciprocal relationship to an external referent that is built on a foundation of shared experiences, beliefs or personal characteristics” (Mahar, Cobigo and Stuart, 2013 p.1026).

2.5.2 Behavioural, Cognitive and Affective Dimensions

As discussed above, Henry, Arrow, and Carini (1999) have suggested that group identity is made up of three dimensions; cognitive, affective, and behavioural, and that activity in each of the three dimensions contributes to the development of a group identity. The model below seeks to depict the underlying processes that create a changed psychological state among the network participants, transforming them from individual representatives of the different member organisations to part of a cohesive and united entity. The model shows the three dimensions - behavioural, cognitive, and affective—as three distinct processes, but in reality, links between each of these dimensions are overlapping, reinforcing, and circular.

FIGURE 2.4 MODEL OF SHARED IDENTIFICATION MECHANISM



Features of the behavioural dimension, such as regular interactions and group norms (among others), have been explored above. Cognitive processes in group work encompass a wide range of activities, including but not limited to information processing, critical thinking, decision-making,

and problem-solving. One significant cognitive process in group work is information processing, where group members interpret and analyse information to make informed decisions. Decision-making within a group involves the cognitive abilities of each member as they weigh various options and consider potential outcomes. Cognitive processes also influence the problem-solving strategies employed by the group as individuals work together to identify, analyse, and resolve complex issues (Theiner, Allen and Goldstone, 2010). These cognitive processes interact with emotional connections to shape the overall effectiveness of group work, emphasising the interconnected nature of cognition and emotions in a collaborative setting (Hinsz and Bui, 2023).

Shared cognition, or socially shared cognition, has a long history in psychological literature. Shared cognition refers to the collective knowledge, understanding, and mental processes that group members develop through interactions and collaborative movement. The group's shared mental models are essential for processing information, making decisions, and coordinating collective efforts to achieve common goals. Shared mental models allow group members to anticipate each other's actions, communicate effectively, and adapt to changing circumstances. In a model produced to explain how shared meaning (which includes group identification) develops, Thompson and Fine (1999) have suggested that there are three central processes involved in the creation of a shared reality; people must be motivated to create a communicated meaning (motivation frequently comes from the requirement to complete a shared task or goal), through their interaction, they create a shared reality that is sustained through cognitive, affective, and behavioural activity.

Proposition 1; When group members engage in cognitive processes such as information processing (derived from shared information), these processes may, in combination with other factors, trigger an emotional connection which increases commitment to the group and ultimately lead to the development of a shared identity.

Goals or tasks are central to the workings of all groups, and while the nature of the goal may act as a moderator for group behaviour (Kerr, 2017), it is not the central focus of this study. Instead, it is the cognitive and affective commitment to the goals of the group that is relevant. The common goal is the purpose of bringing individuals together. However, it is the commitment to those goals that acts as a unifying force, serving as a basis for cooperation and collaboration. In essence, individuals working towards a shared objective can still maintain their personal aspirations, and

their allegiance to the group identity was likely enhance their identities within the inter-organisational context.

Proposition 2; A cognitive or affective commitment to a shared goal is necessary to promote a sense of common purpose which in turn may lead to a shared identity.

Based on a model of group socialisation developed by Moreland and Levine (Levine and Moreland, 1994), when a new member joins a group, a process of reciprocal influence takes place as the existing members evaluate them, and they, in turn, evaluate the other members of the group. The evaluation aims to assess their membership's potential 'rewardingness' and ability to help the group achieve their goals. In the context of these groups, while it is part of the individual's job for most members, attendance at meetings is not mandatory and tends not to be part of any evaluation of their work performance. Therefore, they are likely to carefully weigh up the benefits of group membership against the potential time wasted if the group is unlikely to fulfil their needs or if their goals seem unlikely to be achieved.

Positive evaluations are likely to lead to greater commitment on the part of the new member towards the group, and vice versa. From the perspective of the existing group members, the evaluation is likely to be based on an assessment of the new member's abilities and potential contribution to the group. Levine and Moreland (1994) argue that these evaluations continue throughout their interaction, and judgements may be revised several times. Increased commitment is likely to lead to greater acceptance of the goals and values, more positive feelings between group members, mutual efforts to attain goals, and increased rewards for both individuals and groups. Sharing information is part of this process of mutual evaluation, particularly information of some value to the recipient. The exchange of personal information can open the door to greater emotional or social closeness (van Kleef, Heerdink and Homan, 2017; Rimé *et al.*, 2020)

Proposition 3; Through regular interaction and communication, members of a group influence and evaluate each other positively or negatively. Commitment to the goals and ability to achieve the goals can be signalled through these interactions and lead to greater emotional connection between members, which in turn may lead to the development of a shared identity.

The concept of entitativity, defined as “an individual’s cognitive assessment of a social unit as a ‘group’” (Blanchard, McBride and Ernst, 2022) provides a useful perspective that helps explain the difference between groups seen from a social identity (Tajfel 1974) perspective and an emergent group identity. In essence, the group becomes an entity to its members and the entitativity perspective can be seen as a stage on the route from group processes to outcomes such as identification or cohesion (Blanchard and Allen, 2022)

Entitativity in groups can be influenced by various factors, each of which contributes to the perception of a group as a cohesive and unified entity. For example, when individuals spend more time together, engage in shared activities, or work closely, it can strengthen the perception of the group as a unified entity (Freeman and Webster, 1994). Similarly, when members perceive that their individual outcomes are tied to the success or failure of the group, it fosters a stronger sense of unity and collective identity (Lickel *et al.*, 2000) and the perception of the group as a unified entity is then reinforced when individuals work together towards common objectives (Blanchard, Caudill and Walker, 2020)

Understanding the interplay between cognitive and emotional processes is essential for optimising group performance and promoting a productive group environment. By acknowledging and leveraging the cognitive strengths of its members, a group can enhance its problem-solving capabilities, decision-making processes, and overall creativity. Moreover, recognising the influence of emotional connections on cognitive processes can lead to more cohesive and resilient group dynamics, ultimately contributing to the success of the group as a whole.

Research on emotion within groups has, for many decades, focused on intergroup relations and the effects of group identification on bias, conflict, and other negative emotions (Brewer and Gardner, 1996). More recently, research has begun to consider the relevance of emotional connections within a group, arguing that they foster a sense of belonging (He, 2023) and affective commitment (Damasceno *et al.*, 2021). It has been suggested that emotion or affect is central to group life and is critical for group functioning (Hinsz and Bui, 2023; van Kleef, Heerdink and Homan, 2017). There are four key concepts to be considered; connection, commitment, contagion, and convergence. The development of emotional connection is linked to cognitive appraisal theory (Shweder, 1993) which suggests that an initial appraisal of an event or person takes place, which then leads to a secondary appraisal accompanied by an 'emotional feeling' also described as "forces that create emotional arousal". This feeling is then followed by a cognitive

interpretation of that appraisal and, ultimately, by a resulting action or behaviour (Druskat and Wolff, 1999). When emotions are perceived within the group, an individual's response affects relationships among those involved, which can lead to what has been described as "a self-reinforcing spiral of positive or negative emotions" (Druskat and Wolff 1999 p.2). The emotion-behaviour-emotion cycle can, over time, build a system of collective beliefs about issues such as trust, safety, and efficacy (Druskat and Wolff, 1999) .

When individuals within a group emotionally commit to common goals or a unified vision, it can foster a joint sense of purpose and a powerful emotional connection as members work towards achieving collective objectives, leading to increased motivation and a sense of camaraderie. Individuals experience a greater sense of cohesion in a group when they collectively undergo and articulate identical emotional states, even in instances where the prevailing emotion is of a negative nature. The emotional connection established can even sustain a possible loss of cohesiveness when a group fails to achieve its goal (Magee and Tiedens, 2006)

The theory of relational cohesion emphasises the importance of emotional connections in fostering group cohesion and commitment (Thye *et al.*, 2014). According to the theory, positive emotions experienced through social exchanges lead individuals to attribute those emotions to their own actions, the actions of others, and the relationships between group members. Understanding these antecedents can provide insights into how groups form and maintain a cohesive identity. These factors collectively contribute to the perception of entitativity and influence the dynamics of group behaviour, cohesion, and identity formation.

Emotional contagion, a process through which emotions are transmitted from one individual to others within a group, is based on an understanding of the interconnectedness of emotional states and how they impact group performance. This phenomenon has far-reaching implications for group dynamics and performance, and research has consistently demonstrated that emotional contagion has a significant impact on group performance and cohesion (van Kleef and Fischer, 2016; Mackie and Smith, 2017). Positive emotions, when transmitted among group members, contribute to enhanced cooperation, reduced conflict, and improved task performance (van Kleef and Fischer, 2016). Conversely, negative emotional contagion can lead to decreased productivity, increased conflicts, and strained interpersonal dynamics within the group (Dasborough *et al.*, 2009).

Proposition 4; Emotional connection to both the group's goals and its individual members contributes to a sense of collective purpose, increased motivation and commitment, increasing a sense of belonging to a cohesive or unified group which boosts self-esteem and may lead to the development of a shared identity.

The interplay between emotional contagion and group performance highlights the need for a deeper understanding of how emotions shape the collective outcomes of a group. For instance, individuals' susceptibility to emotional contagion, their level of engagement in collective activities, and their dispositional tendencies play a crucial role in moderating the effects of emotional contagion within the group (Barsade, 2002). It is evident that emotions not only influence individual experiences but also have a profound impact on the group's overall emotional climate and effectiveness.

When the behaviours lead to cognitive and/or affective processes, the dynamic between group members begins to change. This change can happen quickly, but more likely it will take time to establish, particularly to develop the feeling of reciprocity that contributes to the development of trust and supportive relationships. Additional behaviours then contribute to and reinforce positive feelings generated by goal achievement.

In conclusion, many of the determinants of effectiveness in a governance network, as outlined by Ansell and Gash (2008) and others, can be seen to be linked to the process of identity formation. However, the formation of a shared identity is not an inevitable consequence of regular interactions or communication between individuals in a group. It is known that not all governance networks are collaborative; some may be coordinative or cooperative (McNamara, 2012; Vangen and Huxham, 2013; Sedgwick, 2017; Castañer and Oliveira, 2020) some may experience conflict and struggle; or they may not even seek to develop a collective identity.

However, practitioners tasked with the development of effective networks may take note of the robust evidence that exists to suggest that the development of a shared identity can help to increase the effectiveness of the group. As a process, it starts with actors defining themselves as a collective instead of "a set of disconnected entities" (Ungureanu *et al.*, 2020). The process typically includes a series of stages, starting with the articulation of a vision and the contrasting of experiences in order to converge on a consensual identity. The recognition by practitioners in

governance networks of individual and organisational identities may be helpful, particularly in the early stages of the development of a consensual vision and shared identity.

2.6 Measurement of Social Identity – Review of Scales

As outlined above, identity can be conceptualised in different ways and applied to different operational levels. Similarly, measurement of identity is based on the different theoretical perspectives adopted by the researcher. To identify an appropriate measurement instrument for use in this study, standardised validated social identity and group identity scales were reviewed. Scales using Social Identity Theory (SIT) (Tajfel 1974) as their conceptual framework were most common. As discussed above, Social Identity theory (SIT) is a multidimensional theory comprising cognitive, affective, and evaluative elements, which suggests that people have a fundamental need to increase their self-esteem by belonging to a social group that is positively valued by themselves and others. This theory has informed the development of validated scales for identifying with their group or organisation (Mael and Ashforth, 1992); identification with the military (Johansen, Laberg and Martinussen, 2013) and sports teams (Heere and James, 2007) among others.

One of the core tenets of Social Identity Theory (SIT) is its focus on the centrality of identity to a person's self-esteem. Its measurement similarly prioritises the intrinsic 'who am I' as a person and the way that group membership enhances or diminishes this self-concept. For example, the Group Identification Scale (Mael and Ashforth 1992) measures the strength of an individual's identification with a social group and includes items that assess the emotional significance and cognitive centrality of the group to the individual's self-concept such as "I feel a bond with my group", "I am proud to be a member of my group" and "I see myself as part of my group." Other scales based on SIT such as the Team Identification Scale, often used in sports and organisational team settings, measure the strength of an individual's identification with their team using items that assess the emotional attachment, sense of belonging, and importance of the team to the individual's identity (Heere & James 2007)

One of the best known scales measuring organisational identity was developed by Cheney (1983). Many of its items are strongly focused on identity derived from employment and affinity with an organisation such as "I become irritated when I hear others outside...criticize the company or "I

have warm feelings toward...as a place to work” and “I would be willing to spend the rest of my career with... and are therefore misaligned with what would be appropriate for measuring identification in an interorganisational network. Similarly, the Organisational Identification scale developed by Mael & Ashforth and others (Mael and Ashforth, 1992; Mael and Tetrick, 1992) is based on a definition of group identity that is linked to the individual’s perception of oneness with the work group and the internalised feeling that the group’s successes and failures are one’s own. This scale presents group identity as a core value internalised by the individual rather than an identity that one takes on at a level different to the primary ‘who am I’ identity and is therefore incompatible with the target groups in this research. This scale has also been criticised for muddying the waters between organisational commitment and identity, and a moratorium on its future use was called for (Miller *et al.*, 2000).

The second core tenet of SIT is the assumption that identity is linked to the significance derived from membership of a group, and that members of the group differentiate themselves from others based on their membership – the ‘in-group/out-group’ dichotomy. Items in the scale ask whether criticism of the group feels like a personal insult or whether group members internalise the group’s successes or exhibit qualities typical of the group (Greene, 2004). As cross-sectoral work groups with diverse memberships, the emotional significance that Tajfel applies to identification with the group seems at odds with the networks in this study. The networks do not have obvious comparators or potential ‘out-groups’, and group members are unlikely to differentiate themselves from others based on their membership. For these reasons, the Social Identity Theory approach does not provide a suitable basis for an identification scale for this research. Scales based the differentiation (in-group/out-group) aspect of social identity have also been criticised for inconsistency – producing different results in different contexts or with different individuals (Brown and Wasiams, 1984). In early work, they measured work group identification with a single item asking about the strength of their identification with the work groups. However, subsequent studies used a multi-item scale (Brown *et al.*, 1986) Still, they failed to produce a consistent pattern of findings, raising questions about the robustness of findings on ingroup differentiation in ‘real world’ settings rather than in laboratory settings with students.

The In-Group Identification Scale developed by Leach and colleagues presented a two-dimensional view of identification based on self-investment and self-definition. It is frequently used in social psychology and it measures the extent to which individuals identify with a specific

group using items related to group membership, importance of the group to the individual, and feelings of solidarity with group members (Leach *et al.*, 2008), measured with items that ask about individual self-stereotyping, satisfaction (with the group), solidarity, centrality (in the individual's life) and ingroup homogeneity (Leach *et al.*, 2008) However, while the components making up this scale are relevant and successful measures of social identification, the wording did not align with the groups in this study. For example, cross-sectoral groups would not generally seek to achieve homogeneity but instead would be more likely to aim towards a greater understanding of individual or organisational differences.

Many other scales were reviewed, such as that developed by Cameron (2004), who proposed a measure of social identity using the three dimensions theorised by Deaux (1996); cognitive prominence, ingroup affect, which focuses on the emotional importance of group membership, and finally ingroup ties, which captures the feeling of similarity and connection to other group members. Again, this approach was rejected because of the focus on cognitive prominence and emotional importance. For many members of governance networks, the network may be one of many they participate in as part of their professional or occupational role. It may not be prominent or of great emotional importance but members may nonetheless work effectively and cohesively as they work together towards the network goals.

An alternative approach, and one which initially appeared to be more relevant to this research, was that which measured the degree to which individuals perceive themselves as part of a collective group. Collective identity refers to the sense of belonging to a group that is created through shared experiences, values, beliefs, and goals. It emerges from individuals' identification with a group and the recognition of the group as a distinct entity. Its key characteristics are that identity is primarily linked to the group as a whole, rather than just the sum of individual identities. It is maintained through social interactions, shared rituals, and collective action and therefore seemed promising. Emphasizing the commonalities that bind members together, it focuses on the mutual recognition of similarities and shared goals among group members. The Collective Identity Scale (Stoner, Perrewé and Hofacker, 2011) developed to measure the sense of belonging to a collective, includes items that assess the level of belonging, shared values, and common fate among group members and is often used to measure identification with social movements and political groups and to explain how a common identity motivates collective action and solidarity. However, while collective identity and shared identity are related concepts,

they differ in their scope, context of use, formation processes, and emphasis. Collective identity is a broader concept often used in social and political contexts, focusing on the group's collective consciousness. Shared identity is more focused on mutual recognition and established commonalities among individual group members and is more frequently used in organisational and team settings. While both concepts are essential for understanding group dynamics, cohesion, and the effectiveness of collective action, scales based purely on a Collective Identity perspective are unlikely to be useful to measure identification within a governance network.

In summary, whether conceptualised and measured at individual or group level, scales that measure a form of identification defined primarily by the motivation to increase one's self-esteem through group membership of emotional significance, and an identification achieved through differentiation from an 'out-group' are fundamentally different from the type of identification proposed in this study. Instead of social identity developing based on internal individual-level categorisations, Stets and Serpe (2013) argued that group identity can emerge through interactions with others for a common purpose and through participation in group activities in pursuit of a goal that is larger than oneself. This conceptualisation of group identity fits with the networks in this study. However, it has not yet led to the development of an alternative scale.

Meeussen and colleagues (2014) proposed and tested a form of emergent or temporary work group identity formed through social interaction in real-life work groups. When individuals from different organisational groups interact with each other, they propose that a temporary group identity can form based on the shared context of their interaction. These temporary group identities can emerge during collaborative projects, cross-functional teams, or inter-organisational initiatives and they allow individuals to bridge their organisational identities and unite around a common task or objective. In such instances, the shared goals and objectives of the temporary group become the focal point, transcending individual organisational affiliations. As individuals within the temporary group associate with this shared identity, the group becomes more cohesive and united, facilitating cooperation or collaboration and reducing intergroup conflict.

To test their hypotheses they used just four items from Ellemers, Kortekaas, and Ouwerkerk (1999): 'I identify with other members of my group', 'I am like other members of my group', 'I dislike being a member of my group' (reverse coded), and 'I would rather belong to another group' (reverse coded), which offer modest levels of differentiation between items and again

assume that identification is linked to homogeneity. While Meeussen and colleagues propose that identification is the end-product of a process of value convergence, the scale used to measure identity seems inadequate for the purpose and inconsistent with the behaviours and interactions of governance networks. However, while the scale used by Meeussen et al (2014) were not used, some of the core concepts of Meeussen's study were used in this research. For example, their finding that it is through regular social interaction that values converge as group members navigate their way towards the common goals. They define 'values' as "personal goal orientations which direct group members' perceptions, attitudes, and behaviours towards desired actions and outcomes in the work group context", a definition that fits with the activity carried out by governance networks (Meeussen, Delvaux and Phalet, 2014 p.237). In Meeussen's study the outcome measure tested was 'achievement values' as the content of work group identities – a measure that was suited to the research setting and participants (a group of psychology students undertaking a joint research project with regular measured check-in points). In this study, based on the hypothesised dimensionalisation of shared identity as being comprised of behavioural, cognitive and affective, three dimensions were tested - 'achievement values' (behavioural) 'awareness of group unity' (cognitive) and the SIT core concept of 'belonging'.

In conclusion, having reviewed several scales, based on differing conceptualisations of identity and identification, none of the existing validated scales offer either the range of items theorised by this study to influence identification or the wording of items was considered inappropriate for the networks to be researched. Developing a scale based on an understanding of the underlying dynamics and mechanisms associated with temporary or emergent work group identities (following (Stets and Serpe, 2013 and Meeussen 2014), was determined to offer greater promise for this research.

2.7 Research Questions

Having comprehensively reviewed the literature and found considerable overlap between the factors that contribute to network effectiveness and the development of a shared or group identity, it is hypothesised therefore that identity may provide an explanation for the tensions and challenges faced in the development of relationships at the level of the 'whole network' (Provan & Milward, 2001), as well as a possible pathway to overcoming the challenges of multiple overlapping drivers of effectiveness. Finally, shared identity may offer a way of producing a more

parsimonious model of effectiveness, by acting as a substitute for some of the relational factors identified in the models. The aim in this research is to test whether there is a link between these relational factors and shared identity. Specifically, the following questions were addressed:

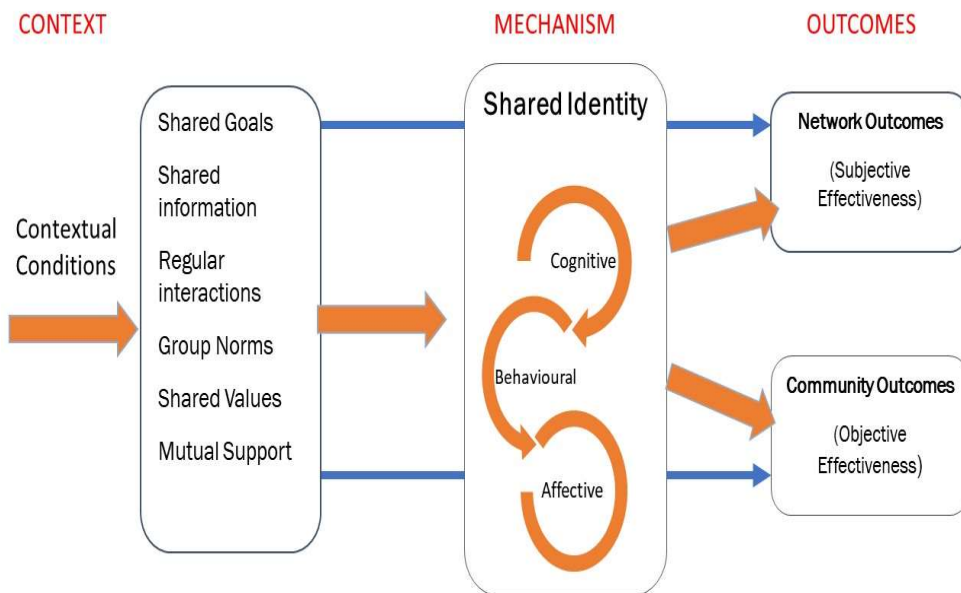
- What is known about effectiveness in governance networks and how it is measured?
- What is the nature of shared identity in a governance network? In other words, this study considers whether conditions that commonly occur when individuals collaborate in a governance network combine to create a shared identity, and if so, in what combinations?
- What is the causal mechanism that links these process factors to the development of a shared identity?
- Do effective networks create a shared identity? What if any causal pathways can be found linking the process factors that combine to create a shared identity (such as shared goals, interactions, and mutual support etc) and the outcomes for network members, service users, and/or community members?

To address these questions a research model has been developed, taking account of the findings from both the thematic and systematic literature reviews. A discussion of how each of these components have been conceptualised and measured is included in Section 3.9 to follow. It is important to reiterate that the aim in this research is to simplify the existing models and to theorise the factors that have the most proximate impact on effectiveness through the development of a shared identity. Therefore, while leadership is known to have an effect on multiple facets of the dynamics of collaboration, the effects of good, facilitative or adaptive leadership is likely to be seen in the model below. Good leadership was help produce shared goals, committed leaders was ensure that regular meetings take place and that network members interact through inclusive approaches to decision-making, and through facilitative leadership members of the group was develop inclusive norms which lead to shared values. It is theorised that members interacting regularly in such an environment are likely to experience a feeling of mutual support and trust. Leadership has not been omitted from the model; it is central to it but its influence is implicit rather than explicit.

2.8 Conclusions

This study seeks to test the extent to which each of the identified determinants of effectiveness are critical for the achievement of effectiveness outcomes (see research model below) and to explore the potential for shared identity to act as a mediating and potentially simplifying concept between determinants and effectiveness. Furthermore, the research was go beyond the identification of 'critical' factors to achieve a deeper understanding of the mechanisms relating to the formation of shared identity that may be operating within these governance networks. Based on a thorough review of the various approaches to the measurement of effectiveness (discussed in section 2.2.4), the aim in this study is to contribute to generalisable knowledge by systematically comparing multiple cases of governance networks through the lens of the research model.

FIGURE 2.5 RESEARCH MODEL



The following research questions was be addressed:

- 1) The importance of 'context' (including resources) to effectiveness.
- 2) The relative importance of the 6 determinants from PM literature in driving effectiveness
- 3) The link between the 6 determinants and Shared Identity (SI)
- 4) The link between SI and outcomes.

The next chapter was discuss how these questions are to be addressed.

3 Methodology

3.1 Introduction

This research explores causal mechanisms by identifying factors that lead to positive outcomes, looking at contextual or environmental conditions, and the processes or functioning characteristics of a network's members (interactions, relationships, etc). This chapter will outline the researcher's philosophical perspective and assumptions and positionality before describing the theory or theories of causality that was apply to this study. The research design was be set out, followed by a description of the data collection process. The instruments and measures will be outlined for the condition sets and the outcomes. This will be followed by an introduction to the analytical approach to be taken and a discussion of the appropriateness of Qualitative Comparative Analysis (QCA) to the goals of this study.

3.2 Philosophical Foundations

The ontological foundations of this research are based on a realist philosophy and on an acceptance of a reality that exists independently of one's knowledge of it, which is best understood through an exploration of context and mechanism (Williams, 2019). Critical realists reject the positivist approach of seeking to identify generalisable laws and the interpretivist's belief that we can understand reality only through the lived experience of social actors (McEvoy and Richards, 2006). Instead, the critical realist believes in a 'stratified reality' and distinguishes between layers of reality: the empirical, which is directly observable or experienced; the actual, which may not necessarily be experienced; and the 'real', or the structures and mechanisms that are responsible for phenomena as experienced by human beings (Williams, 2019).

In recent years, realist researchers have developed the philosophy further to include "an ontology of indeterminacy or contingency" (Williams, 2019), known as complex realism. This perspective marries the critical realist's belief in a 'stratified reality' with an understanding that the social world is complex and multi-dimensional, and it is through an exploration of the underlying mechanisms that we can understand this complexity (See section 3.4.4). The concept of the 'mechanism' is a central feature of realist thinking, and it posits that causes or outcomes are

produced through the interaction of social structures, mechanisms, and human agency (McEvoy and Richards, 2006). The work of Pawson and Tilley championed mechanistic thinking through their formula for summarising the realist understanding of mechanisms as operating in a context to produce outcomes: $C + M = O$ (C=Context, M=Mechanism and O= Outcome). Pawson and Tilley see the link between causal mechanisms and their outcomes as contingent on the context (Pawson and Tilley, 1997).

This perspective also acknowledges the possibility that reality is contingent on context and that causality may be configurational, in that different conditions may combine to lead to the outcome. Complex realists, in common with critical realists, accept the possibility that more than one cause can produce an effect and that in the social world, there may be many causes interacting with one another to produce different effects in different situations (Archer *et al.*, 1999). However, for complex realists such as Williams, the critical point of differentiation lies in their understanding of probability and his contention that all events in the social world are probabilistic rather than socially determined... *“That, in my view, is the real character of social reality. Complexity is probability”* (Williams, 2021 p.8). He distinguishes between the natural world, where some things ‘must’ happen and others are ‘forbidden’, and the social world, where all things have a probability of occurring, even if that probability is small.

Complex realists posit that various factors, such as social structures, cultural norms, individual agency, and historical context, influence social phenomena. While the context may shape the behaviour of individuals, they also have the agency to act within and potentially alter these structures (Harvey, 2009). These researchers identify feedback mechanisms as crucial features of the social world, which lead to a “multiway exchange of information that create macro–meso–micro causal chains in both directions” (Williams, 2019). The nature of causality and causal mechanisms was explored in greater detail in section 3.4.

To develop knowledge about the social world, Pawson and Tilley claim, researchers must avoid “the traditional epistemological poles of positivism and relativism’ (Pawson & Tilley, 1997) and instead position themselves somewhere in the space between the two. While a positivist approach in social science can identify associations between variables and outcomes, it cannot develop an understanding of why a programme works, for whom it works, and in what circumstances it is likely to work in the future (Pawson & Tilley, 1997).

From a methodological perspective, realist researchers accept that knowledge can be gained from interpretivist methodologies that examine the perceptions and understandings of individuals operating in a system while also arguing for the importance of linking their perceptions and interpretations, expressed through discourse, with an understanding of the underlying social structures within which they operate (Granovetter, 1985). However, while acknowledging that causal modelling using statistical tests and an assumption of linear relationships “can rarely reveal straightforward causal relationships”, some realists argue that such approaches may provide a valuable way of identifying causal mechanisms. (Williams 2019, p.65). However, the assumption of linearity does not fit with this researcher’s view of the social world. Instead, the social world should be seen as “...an open system composed of endless components and forces” (Pawson, 2004, p.18). These components and forces produce different outcomes under different circumstances or cultures. The model developed to guide this research is inherently social and relational. It suggests that the factors related to collaborative processes contribute to the development of a shared identity, which acts as a mechanism that contributes to more positive outcomes. To develop an understanding of the interactions between these factors, each network must be seen as a case and considered in a holistic way. Authors such as David Byrne have argued that understanding the case is central to proper social scientific understanding and that cases provide “the foundations of useful theoretical descriptions of the social world”, (Byrne, 2012a p.5) particularly when the knowledge produced is derived from the systematic comparison of multiple cases.

A method to systematically compare cases while maintaining the integrity of each case has been developed by Charles Ragin, allowing researchers to pool similar cases and compare them as configurations, revealing patterns of similarity and difference. This method, known as Qualitative Comparative Analysis (QCA), is frequently used by realists as it accepts a complex, multifaceted reality and a configurational causality. This chapter will return to a more detailed introduction of QCA, but first, I will discuss my positionality as a researcher before continuing with a discussion of causality and causal mechanisms and then moving on to discuss the benefits and shortcomings of the comparative case study.

3.3 Positionality as a researcher

As discussed above, to carry out this research I collaborated with two national organisations, Age Friendly Ireland and The Housing Agency. As I have past and current employment ties with these two organisations, it is important to acknowledge and reflect on the potential impact of these relationships on my research.

While I bring a unique perspective to this research shaped by my professional experiences with Age Friendly and the Housing Agency, these experiences bring with them, potential negatives as well as positives. My background experience with Age Friendly Ireland brings familiarity, interpersonal relationships and an understanding of the organisation's mission, culture, and operational practices. However, my perceptions, could potentially introduce biases, partiality, or assumptions that cloud my ability to objectively analyse the data. Similarly, my employment by the Housing Agency (for the duration of this research) also offered benefits such as access to research participants and organisational support in promoting the research. Through my employment, I gained an insight into its strategies and challenges but I also recognised that my role in the Housing Agency had the potential to put me in a power differential with participants. Recognising and mitigating any potential issues arising from this experience is important to ensure the integrity of the research process.

To overcome these issues, I have adopted a reflexive approach, examining how my past and present roles have the potential to influence my interactions and interpretations. I sought to ensure that my research design, data collection, and analysis remained rigorous and unbiased by piloting research instruments, triangulating data sources, seeking diverse perspectives, and engaging in regular self-reflection. Additionally, I maintained transparency with research participants about my affiliations and the steps being taken to ensure impartiality.

In common with Breen (2007), I consider myself 'somewhere in the middle' rather than at either end of the insider/outsider dichotomy. While I may have some of the advantages that come with being an 'insider' in the national organisations, I did not have any real knowledge of the local-authority led networks and how members interacted with each other. My experience of working with these organisations helped me ensure that the research instruments were appropriate to the participants. However, I remained mindful of the potential for my experience to influence my research questions, design, and analysis. To overcome these potential issues, I actively challenged

any assumptions by incorporating diverse theoretical frameworks and seeking alternative explanations for the data. It should be noted that the use of the Fuzzy Set QCA (fsQCA) methodology for data analysis is particularly useful for this as it offers a range of tests and enhancements that allows the researcher to test their findings and maintain rigour and transferability. These enhancements of the method were fully used and their findings discussed in an open and transferrable way, following best practice guidelines at all times (Schneider and Wagemann 2010). Presenting my work to peers and experts at international conferences and engaging with peers and mentors also helped to address any potential assumptions that might cloud my judgement.

To overcome any potential issues caused by the power dynamic with participants from both organisations, I remained mindful of the need to maintain professional boundaries and uphold ethical standards to ensure that all participants felt comfortable and valued. I achieved this by obtaining informed consent, ensuring confidentiality, and not allowing my dual roles to influence participants' willingness to share openly. My commitment was at all times, to present a balanced and nuanced portrayal of both Age Friendly and the Housing Agency and contribute valuable insights that benefit both Age Friendly and the Housing Agency, as well as the broader field of study. This motivated and drove my dedication to producing high-quality, impactful research.

However, being mindful of how my personal investment in these areas might affect my objectivity, I had to ensure that my capacity for critical analysis was not impaired. I made sure to give equal attention and weight to the insights and experiences from both organisations, capturing a diverse range of voices and ensuring that the findings reflected the complexities and realities of both settings without bias. In summary, my positionality as a researcher cannot but be influenced by my professional history with Age Friendly and my current role with the Housing Agency. However, by acknowledging these influences and actively working to mitigate potential biases, I aimed to conduct research that is ethical, balanced, and reflective of the true dynamics within and between these organisations.

3.4 Causality and Causal Mechanisms

3.4.1 Introduction

To pursue the aim of this research, i.e., to investigate the potential for shared identity to act as a causal mechanism producing greater effectiveness in governance networks, it is first necessary to develop a clear understanding of causality and how causality can be inferred. As Mumford says in his concise introduction to causation, “Only if we are armed with a theory of causation will we be able to go out and look for it” (Mumford, 2013, p.2). Causation theories can be grouped into five categories: regularities, probability raisers, counterfactuals, interventions, and physical processes, with philosophers tending to focus on one approach to explain the entirety of causation.

There may not be one correct interpretation of causation. Instead, the researcher’s understanding of causality may depend on one’s philosophical perspective, epistemological framework, context, and discipline. Ideally, the researcher should consider multiple theories and approaches to gain a comprehensive understanding of causation in different domains. This section will, therefore, briefly review some of the main causation theories before discussing causal mechanisms in social scientific settings. It will then outline the methodological approach to infer causality in this research and offer a justification for why it is the most suitable approach based on the cases studied.

3.4.2 Early theories of causation

Most accounts of the historical development of philosophical thought on causation and causality start with Hume’s Regularity Theory of Causation (RTC), while frequently acknowledging that the term itself can be traced back as far as Aristotle and perhaps before (White, 1990). Although it has been claimed that Hume was seriously misunderstood, both during and after his lifetime (Jessop, 1952), the most commonly accepted understanding of his regularity theory is that causation is not directly observed, but when we repeatedly observe one event following another, we form an expectation that the first event will always be followed by the second, and when the same cause is regularly followed by the same effect, we assume that it can be held responsible for that effect, or more correctly, the effect can be inferred from the cause. According to Hume’s theory, a cause can be defined as *“an object, followed by another, and where all the objects similar to the first,*

are followed by objects similar to the second, and if the [cause] had not been the [effect] never had existed" (1748: section VII quoted in Menzies and Beebe, 2001).

Hume claimed that we cannot perceive the underlying power or link between cause and effect; instead, our past experiences lead us to form associations between them. Rejecting the notion of a necessary connection between cause and effect, Hume argued that our belief in causation is not justified by reason. Therefore, we should be cautious against making unwarranted claims about the ultimate nature of causation or asserting knowledge beyond what our sensory experiences can provide (Cramm and Nieboer, 2012).

Based on this theoretical position, the link between cause and effect depends on three essentials: spatiotemporal contiguity, temporal precedence, and regular association (Humphreys, 2000).

However, both the deterministic nature of causality and the constant conjunction implied by Hume's theory raised questions and issues, which led to subsequent refinements of the theory. According to Befani (2012), seen from the perspective of the regularity theory of causation, the cause is both necessary and sufficient for the effect. The cause and effect must be observed in regular co-presence to claim causation.

In his work "A System of Logic" (Mill, 1882), an empiricist strongly influenced by Hume, John Stuart Mill, made significant contributions to the philosophy of causation. In addition to offering a comprehensive account of causation, he also proposed methods of inquiry that would determine causation. Mill suggested that all knowledge must be based on empirical observation and induction (drawing general conclusions from specific instances) and believed in the constant conjunction view of causality. Based on inductive logic, he put forward four methods of experimental inquiry to determine causation: the Methods of Agreement, Difference, Residues, and Concomitant Variation. The Method of Agreement involves comparing instances where a phenomenon occurs to identify the common elements present. By finding what these instances have in common, one can infer that those common elements will likely be connected to the phenomenon in question. The Method of Difference compares cases where a phenomenon occurs with those where it does not identify the differences between the two, with the assumption that the differing factor is related to the presence or absence of the phenomenon (Befani, 2012).

Alternatively, the Method of Agreement and Difference can be combined to identify the cause, and he proposed that where several potential causes are being considered, if some are eliminated using the Method of Difference, the remaining cause is the most likely cause of the effect (Newton-Smith, 2017). Finally, the Method of Concomitant Variation looks at the variations in the degree of occurrence of a phenomenon and its potential causes. By observing how changes in one variable correspond to changes in another, Mill suggested that one could establish causal connections between them. (Mill, 1882)

Mill proposed that causes can be understood in terms of necessary and sufficient conditions (Jacobs, 1991). He argued that a particular cause is not necessarily the only condition required for an effect (necessary cause) or the only condition that guarantees the effect (sufficient cause). Instead, when considered collectively, causation can be seen as a combination of necessary and sufficient conditions.

Over the years since Hume developed this theory, philosophers have identified its limitations, such as failing to account for any necessary connection between cause and effect, merely suggesting that they occur together repeatedly without providing a solid rationale for why one event necessarily leads to another. The theory fails to distinguish between correlation and causation, and its emphasis on general patterns and regular sequences fails to take account of singular or unique causal events that might not follow regular patterns, but specific one-time occurrences can be causally related (Beebe, 2014).

3.4.3 Modern theories of causation

Other theories that have gained currency include the probabilistic theory of causation, which recognises the role of uncertainty and rejects the more deterministic nature of causation proposed by early philosophers. Instead, causation is seen as a probabilistic relationship between events. It seeks to establish the likelihood or propensity for one event to be followed by another using statistical patterns in causal relationships. This theory aligns with Bayesian epistemology, which uses probability theory to understand causation based on empirical evidence. The manipulability theory focuses on the idea that causes are factors we can manipulate to produce specific effects and are more relevant to experimental settings (Gasking, 1955). This theory implies that effects can be brought about through the intervention of individuals and, conversely, that failure to manipulate the causes would prevent the effect from occurring. Arguing for the

importance of structure and agency in explaining a phenomenon such as causation, Archer and colleagues suggest that both are essential to understanding the “causal power” that follows from their interaction (Archer et al., 1999).

While the roots of counterfactual theory lay in Hume’s original theory, it was not until the philosopher David Lewis developed his counterfactual theory in 1973 that counterfactual thinking became a significant part of causal determination. Lewis proposed a possible-worlds scenario for counterfactual statements and sought to provide a comprehensive account of causation by focusing on the analysis of counterfactual conditionals or statements about what would have happened if certain events or conditions had been different. Lewis’s theory begins with the idea that causation is fundamentally a matter of dependence between events. Specifically, he defines causation in terms of the counterfactual conditional statement, “If event A had not occurred, event B would not have occurred.” In other words, A causes B if the occurrence of A makes a difference in whether B occurs or not. Essentially, this involves considering whether there could be alternative scenarios in which effect E would still occur if cause C were absent. If E occurred in the absence of C, then C is not the cause of E (Lewis, 1973).

More recently, theorists have contributed to the theory of counterfactuals. Judea Pearl emphasised their role in establishing causal claims and developed a formal framework for reasoning using counterfactuals. He discusses the necessity of counterfactuals in defining causality, arguing that causal claims inherently involve comparing what happened to what would have happened if certain conditions were altered. This perspective provides an approach to distinguishing causation from correlation, enabling researchers to establish causal relationships between variables even without randomised experiments. However, Pearl also discusses the challenges and complexities associated with counterfactual analysis, such as the issue of unobserved or unmeasurable counterfactuals and the need to make reasonable assumptions to bridge these gaps. Pearl emphasises the importance of constructing causal models and using causal inference methodologies to overcome these challenges and reach causal conclusions. (Pearl, 2009)

The challenge associated with counterfactual reasoning was picked up by Nancy Cartwright, who argued against it as a definitive tool for establishing causal claims. She questioned the traditional notion of counterfactuals, arguing that they often rely on simplifying assumptions and idealised conditions that may not fully capture the complexities of real-world causal relationships. She

proposed that context and background conditions could shape the interpretation of counterfactuals and argued for a nuanced and cautious approach to their use in causal analysis (Cartwright, 2002). Furthermore, Cartwright emphasises the significance of empirical evidence and the importance of incorporating empirical data and experimental results in conjunction with counterfactual reasoning to build more robust causal explanations. Her work often advocates combining theoretical analysis and empirical investigation to develop a comprehensive understanding of causal relationships in complex systems, acknowledging the limitations of relying solely on counterfactuals for causal inference (Cartwright, 2004).

In more complex systems, causal relationships might not exhibit regular patterns due to the presence of various intervening factors or feedback loops. The regularity theory struggles to explain causation in such complex systems (Wagner, 1999). Configurational theory emphasises the interplay of multiple causal factors and their configurations in producing outcomes. Fiss (2011) introduces a theoretical perspective that has implications for understanding equifinality in typologies and configurations, highlighting the complex causal relationships among configurational elements and outcomes. There are three central features of configurational theorising: conjunctural causation, equifinality, and causal asymmetry. Conjunctural causation suggests that a single condition produces its effect in combination with other conditions. Equifinality means that several combinations of conditions can lead to the same outcome. Causal asymmetry is where the causes that produce an outcome may differ from those that lead to the absence of the outcome.

Misangyi et al. (2016) suggest that configurational theories explicitly address causal complexity by including equifinality, conjunctural causation, and causal asymmetry. This underscores the non-linear nature of causation and the need to consider multiple factors and their configurations in understanding outcomes. Fiss (2007) suggests configurational theory is an important departure from the predominant linear paradigm. He argues for the need to move beyond simplistic causal relationships to understand the complexity of causal configurations and acknowledge the dynamic role of configurational causality in shaping diverse causal pathways.

3.4.4 Causal Mechanisms

Process theories emphasise the underlying mechanisms and processes that connect causes and effects. They aim to explain the mechanisms and interactions that produce the observed causal

relationships. Process theories provide a more detailed and context-specific understanding of causation but can be challenging to identify and describe in complex systems (Salmon, 1987). Finally, and perhaps most relevantly for this research, mechanistic theories of causation emphasise the underlying mechanisms or processes that link cause and effect. Causal mechanisms refer to the processes or interactions through which causes produce their effects. In seeking to uncover them, the researcher aims to understand the physical or conceptual mechanisms that explain why events are causally related (Machamer, Darden and Craver, 2000; Glennan, 2002).

Causal mechanisms can operate at various levels, from the physical and biological to the social and psychological. They can be observed in diverse domains, including the natural sciences, social sciences, and even everyday life. Identifying and understanding causal mechanisms is important for building comprehensive explanations and theories. There have been numerous competing definitions of mechanism; one of the best known is that from Machamer, Darden, and Craver (2000), who stated that *“mechanisms are entities and activities organised such that they are productive of regular changes from start or set-up to finish or termination conditions”* (Machamer, Darden and Craver, 2000 p3). Glennan’s definition is equally widely recognised as influential and pertinent; *‘A mechanism for a behaviour is a complex system that produces that behaviour by the interaction of a number of parts, where the interactions between parts can be characterised by direct, invariant, change-relating generalizations.’* (Glennan, 2002 p.344) However, for this research, the description provided by Mahoney (2016) perhaps provides the best starting point for the search for a causal mechanism... *“mechanisms are the general theoretical processes or principles that provide the reason why the occurrence of X can or does exert a causal influence on M”* (p.494).

In presenting mechanisms as systems, Beach and Pedersen (2019) regard them as being made up of entities and activities: *“Entities are factors (actors, organizations, or structures) engaging in activities, whereas the activities are the producers of change or what transmits causal forces or powers through a mechanism”* (Beach and Pedersen 2019, 38). They stress the distinction that must be made between conditions that “produce something” and those that are more contextual and are expected to “affect the functioning of the mechanism” (p.254)

Causal mechanisms are central to the thinking of complex realists (Byrne, 1998). Realists argue that causality is context-dependent and that causal explanations should consider the specific social, cultural, and historical context in which events occur. Complex realists also reject simple

linear cause-and-effect models, arguing that the complexity of social systems cannot be adequately explained in terms of linear relationships. Instead, an understanding of causality may be gained by examining the interactions of various elements within complex social systems (Byrne, 2012b).

Pawson's focus on mechanisms rejected the view of causation as a deterministic process, and instead, he argued that social mechanisms, while having causal properties, are also complex and multifaceted (Williams, 2019). Many authors, such as Mahoney (2016), have also stressed that mechanisms should not be seen as variables (intervening or not). Sayer claims that *"the context within which a causal process occurs is, to a greater or lesser extent, intrinsically involved in that process, and often cannot be "controlled for" in a variance-theory sense without misrepresenting the causal mechanism* (Sayer, 2012, pp.114-118). Instead, mechanisms should be seen as theories about how and why two events are connected. "They represent the causal force or power that leads event A to give rise to outcome B" (Beach and Pedersen, 2015 p.4).

3.4.5 Conclusion

In conclusion, despite centuries of philosophical thought, philosophers have not agreed on the one true meaning or interpretation of causation. The various theories put forward have often been rejected by others who put forward counterexamples, offering instances in which the theory does not produce a causal effect. Perhaps the most straightforward explanation for the 'failure' to arrive at an agreed position on causality has been provided by Nancy Cartwright in her seminal work 'The Dappled World' (quoted in (Cartwright, 2004); *"The term 'cause' is highly unspecific. It commits us to nothing about the kind of causality involved or about how the causes operate. Recognising this should make us more cautious about investing in the quest for universal methods for causal inference"* (Cartwright 1999, p.105). This view suggests that the prevailing view of a single, unified metaphysical account of causation should be rejected – a view supported by many other theorists (Psillos, 2008; Reiss, 2009; Godfrey-Smith, 2010; Wolff, 2010).

Psillos (2008) suggests that there are many ways to identify the presence of a causal connection. Different entities, such as regularity, counterfactual dependence, probability raising, the presence of a process, and the presence of a mechanism, can all be used as 'symptoms' of causation. He emphasises that these entities are typically correlated and contribute to the understanding of causation, even if there is philosophical disagreement about its nature (Psillos, 2008). Similarly,

Godfrey-Smith argues that the traditional view of causation as a single, unified concept is problematic because it fails to account for the diversity and complexity of causal relationships observed in the world. He suggests that abstract criteria often used to define causation, such as “instantiating a regularity” or “being linked in a chain of counterfactual dependence,” do not capture the full range of causal connections and are not based on the specific physical character of those connections (Godfrey-Smith, 2010).

The preceding centuries of philosophical thought on causation can be condensed to four general approaches to causality: regularity, counterfactual analysis, configurational, and the generative or mechanistic perspective (a causal mechanism). A good causal inference should aim to satisfy the requirements of all four rather than just one. When the empirical evidence shows constant conjunction (regularity), no effect when the cause is absent (counterfactual approach), an effect after a cause is manipulated (manipulation theory) and processes or interactions linking causes and effects (mechanism approach), the researcher can be confident that their causal inferences are built on solid ground (Brady, 2011).

3.5 From causal theory to methodology

This section will move the discussion on to show how the theory of causality and causal mechanisms has been used to guide the methodological approach in this research. It will also discuss how causality will be inferred in this study.

Qualitative Comparative Analysis (QCA) is a method that accepts a non-linear relationship between cause and effect. It looks for constant conjunction (regularity), no effect when the cause is absent (counterfactual approach), and a configurational causality, which accepts that causes can be combined to produce the outcome. It is frequently used with a method that looks for processes or interactions linking causes and effects (mechanism approach).

QCA uses regularity theories and the criterion of difference-making to infer causal relationships. The criterion of difference-making in regularity theories requires that the cause regularly leads to the effect (Haesebrouck and Thomann, 2022). This means that a cause must show a consistent pattern of association (or correlation) with the effect across different cases. In the context of QCA, this criterion is reflected in the search for consistencies in the configurations of conditions that lead to the outcome. By identifying the different individual conditions and combinations of

conditions that are consistently sufficient for the outcome across a range of cases, QCA aims to establish difference-making relationships (Mahoney and Acosta, 2022). It provides a systematic approach to identifying consistent patterns and configurations of causal conditions that lead to the outcome. This approach also allows for the identification of necessary and sufficient relations, which is consistent with a regularity approach to causation (Haesebrouck and Thomann, 2022) and helps avoid spurious or coincidental associations (Rohlfing and Schneider, 2014).

Counterfactual theories of causation are closely aligned with the concepts in QCA. In QCA, two types of counterfactuals are used: type-level counterfactuals and token-level counterfactuals. Type-level counterfactuals involve constructing counterfactual scenarios similar to the empirical cases but differing in the causal variable under investigation. These counterfactual scenarios help researchers determine the conditions under which the outcome of interest would be present or absent (Mahoney and Acosta, 2022). On the other hand, token-level counterfactuals focus on specific events and consider whether a particular event (cause) would have occurred without another event (counterfactual) (Haesebrouck and Thomann, 2022).

While the effectiveness of a counterfactual approach for causal inference in QCA has been debated and discussed among methodologists, counterfactuals are widely used in QCA and have been seen as valuable tools for making causal inferences. QCA researchers use counterfactual cases to estimate the extent to which a given event or process is necessary or sufficient for an outcome in specific cases (Mahoney and Acosta, 2022). Counterfactual analysis, especially in the form of case studies, can provide valuable insights into the causal mechanism connecting the causal conditions to the outcome. Researchers can strengthen their causal inferences and generalisations by analysing different types of cases, including typical cases, deviant cases, and intermediate cases (Schneider and Rohlfing, 2016).

In QCA, the most obviously applied theory of causation used is known as configurational causality, which emphasises the idea that causation is not linear but rather is dependent on the specific configuration of multiple conditions or factors that are jointly sufficient or necessary for a particular outcome to occur. This approach to causality is based on the understanding that different combinations of conditions can lead to the same outcome, and the presence or absence of certain conditions can play a critical role in determining the outcome. To infer causality, it is essential to assess both necessary and sufficient conditions for the occurrence of an outcome to determine the specific combinations of conditions that must be present for the outcome to occur

(necessary conditions) and those combinations that are always present when the outcome occurs (sufficient conditions).

By adopting the theory of configurational causality, QCA provides a valuable approach for understanding and analysing complex causal relationships in social research and related fields. It offers a nuanced understanding of causality beyond simple linear relationships. In QCA, the truth table analysis involves the examination of patterns in the occurrence of the conditions and the outcome. During the truth table analysis in QCA, researchers systematically compare different configurations of conditions with the observed outcomes to identify consistent patterns and combinations that lead to the outcome of interest. However, it is important to note that while the truth table analysis in QCA looks for consistent patterns, it does not exclusively rely on the constant conjunction of cause and effect as the sole basis for inferring causality, as emphasised in the regularity theory. Instead, QCA considers the holistic configurations of conditions, allowing for a more nuanced understanding of how multiple conditions interact to produce outcomes in different contexts. It also emphasises the importance of a case-based approach and stresses the fact that a deep understanding of the details of each case should inform decisions taken by a QCA researcher. For this reason, QCA analysis is frequently preceded or followed by an in-depth qualitative analysis of the cases.

By leveraging truth table analysis within the framework of configurational causality, QCA offers a comprehensive approach to identifying causal patterns and configurations. It takes into account the interplay of multiple causal conditions and the context-dependent nature of causal relationships. This allows researchers to gain valuable insights into the complexity of causation, especially in situations where traditional statistical analyses may not fully capture the intricate interactions among variables.

3.6 Research Design - Comparative Case Study

Governance networks are essentially bounded social structures that exist to perform particular functions and “...possess lifecycles, exist in time and space and cannot be divorced from their environments and larger contexts” (Voets, Koliba, & Keast, 2019) While Yin’s definition of the case study as an empirical study that “investigates a contemporary phenomenon within its real-life context” (Yin, 2010 p.13) is one of the most frequently cited definitions for a case study, it is the

definition provided by Ragin (2000) that guides this study *“A case study is a research strategy based on the in-depth empirical investigation of one, or a small number, of phenomena in order to explore the configuration of each case and to elucidate features of a larger class of (similar) phenomena, by developing and evaluating theoretical explanations”* (Ragin, 2000, p.64). Typically, case studies gather evidence from different sources and may use qualitative or quantitative (or both) approaches to data collection.

In general, comparative case studies involve a close and systematic examination of the details of numerous cases and their outcomes to identify the regularities or patterns between the occurrence or non-occurrence of particular data points. In observing the regularities and patterns, the researcher frequently aims to draw conclusions about causality. However, Kaarbo and Beasley (1999) have pointed out that causal inference should not be an essential goal in all comparative case studies. In a QCA study, researchers analyse contemporary cases, identifying similarities and differences to make inferences about causation. When combined with detailed within-case analysis, QCA can provide a comprehensive understanding of causality, particularly when studying complex social phenomena where a singular cause-and-effect relationship is unlikely to fully capture the intricacies of the underlying mechanisms.

The comparative or collective case study method allows the researcher to move beyond the focus on developing in-depth insights into locally contingent processes to an understanding of the forces underlying the broader patterns observed. When selecting multiple cases, the validity of the findings is enhanced by comparing cases that are similar in some respects and different in others (Kessler and Bach, 2015, p.169). Using multiple cases allows the researcher to identify patterns, leading to a logical interpretation of similar or different findings across each of the units of analysis observed (Bishop, 2012).

Empirical research has found that the outcomes produced by governance networks result from a complex interplay of factors, with antecedents being mediated by collaborative processes to produce outcomes (Chen and Graddy, 2010). Voets and colleagues (2019), in a review of the use of the case study method in network and collaboration research, found that its value for network and collaboration researchers was linked to its ability to explore complexity. For realist researchers, using multiple methods offers the potential to triangulate data, providing a more solid ground on which to base findings of tendencies or patterns of regularity (Tashakkori and Teddlie, 2015). More crucially, the different data sources facilitate a process of retroductive

reasoning to derive causal explanations from the data. Retroduction is a form of logical reasoning that delves into identifying the underlying causal mechanisms behind observable patterns, outcomes, or phenomena (Sæther, 1998; Lawson, 2009). In contrast to inductive logic, which seeks generalisations from specific data, and deductive reasoning, which forms specific statements based on general claims or laws, retroduction operates by working backwards from observed or measured phenomena. It aims to answer the question of what might explain specific phenomena identified in a particular situation, uncovering the causal mechanisms that underlie these observable elements (Olsen, 2009)

3.7 Empirical Setting and Case Study Selection

3.7.1 Overview

In the governance networks that are the subject of this research, community stakeholders come together to tackle a societal issue, implement a government strategy, and develop interventions or actions that can bring about change and produce better outcomes for older people or disabled people with a housing need. The study uses a national sample of Age Friendly Alliances (AF) and the Housing for Disabled People Networks (HD) – two local authority-led governance network programmes focused on developing and implementing government policy. Many of the characteristics that are relevant for effectiveness are common to all networks in our two governance networks and can, therefore, be held constant.

This research uses both qualitative and quantitative data gathered from two national programmes in Ireland, each of which is made up of 30 governance networks. The cases are geographically bounded and comprise representatives of relevant stakeholder organisations interacting regularly in a formally organised meeting setting. In a QCA study, the selection of cases for inclusion is based on the outcome of interest and existing theory, and it is best to include cases that have and do not have the outcome to draw causal inferences from the analysis. In contrast to quantitative analysis, which requires large numbers due to statistical power considerations, the number of cases is less important than the particular features of the cases (Kahwati and Kane, 2021). In keeping with the views of Carden, who argues that *“the central project of any science is the elucidation of causes that extend beyond the unique specific instance”* (Carden, 2012) this research seeks to develop generalizable findings that link the causal mechanisms to the

outcomes. The use of mixed methods seeks to develop a deep understanding of the workings of networks in a public management context while also facilitating the numerical analysis of concepts.

FIGURE 3.1 METHODOLOGY OVERVIEW

- Mixed methods, comparative case-studies with 22 cases.
- Two national programmes –Housing for Disabled people (HD) and Age Friendly networks (AF)
- Geographically similar - One of each programme in each local authority area
- Structurally similar – voluntary membership, cross-sectoral representatives of organisations relevant to the subject matter
- Contextually similar - Both local-authority led and governed by a network administrative office at national level (Provan and Milward 2001)

3.7.2 Research Setting

In the past couple of decades, the recognition that governments should be mindful of their policies' impact and open to the involvement of stakeholders in their implementation has taken form in the development of multi-stakeholder or 'inter-agency' working groups and committees. Irish government strategies and statements, such as the National Positive Ageing Strategy (NPAS) or "Housing Options for our Ageing Population", have identified the need for collaborative approaches to addressing issues such as the provision of services for older people or housing for people with a disability (Department of Housing Planning and Local Government; and Department of Health, 2019). In each of these policy areas, the local authority has interpreted and implemented the national policies at the local level. The governance networks linked to the implementation of national policy in these two policy areas are led and managed by the local authority in each area. The study uses a national sample of Age Friendly Alliances and Housing with Disability Steering Groups – two local authority-led programmes focused on implementing government policy. These programmes have been chosen because they represent the type of

cross-sectoral structure commonly established by governments to work collaboratively to either develop and implement strategies or to deliver services to a key stakeholder group.

The Age Friendly Network in Ireland is part of a World Health Organisation programme built on accepting the need for collaborative approaches. Under this programme, each local authority establishes structures known as Age Friendly Alliances, which bring together the relevant stakeholders to align their efforts and seek to optimise their resources to improve and deliver necessary services to older people. The structure is centred around the nomination of a lead agency, which, in Ireland's case, is the local authority. However, governance is constituted by the multi-agency alliances in each jurisdiction, supported by an additional structure, the Older Peoples' Councils. The programme in Ireland has evolved over approximately ten years to the point where each local authority has published strategies and programmes of work. Using a framework developed by the WHO (World Health Organisation, 2007), the members of alliances agree to identify actions and interventions in each of the eight domains of the framework.

The National Housing Strategy for People with a Disability (Department of Housing Planning and Local Government., 2011) covered the period from 2011-2016 and was subsequently renewed up to 2021. From research carried out to inform the development of a strategy, the government identified fragmented service delivery as a critical problem preventing the efficient delivery of services to people with a disability. Where successful interagency cooperation existed, the report stated, it was mainly the result of *"goodwill, strong leadership and effective working relationships at a local level"* (Department of Housing Planning and Local Government. 2011, p.72). To address this issue, the strategy mandated the establishment of Housing and Disability Steering Groups in each county/city council area. These groups aim to act as a mechanism for collaborative work between the relevant agencies, explicitly focusing on implementing the strategy.

These groups are governed at the national level by a high-level Housing Subgroup, which is driven by the Housing Agency and is made up of representatives from relevant government departments such as Housing and Local Government, Health, and local authorities, as well as non-profits such as the Irish Council for Social Housing (ICSH) and various disability representative organisations. Similarly, at the national level, the AF programme is governed by a high-level group comprising senior public servants from local and national governments. Three additional networks have been established: the Chairs of each city or county alliance, the Chief Executives of participating non-

profit organisations, and the appointed staff members (Programme Managers) from each local authority.

3.7.3 Programme selection for Comparative Case Study research

Because the two programmes described here share a number of characteristics, they provide ideal settings for comparative case study research. Using Mill's method of agreement (which is a method used to compare instances of the same phenomenon in different circumstances), the choice of programmes with many contextual similarities means that some context conditions can be eliminated from the study, allowing the researcher to focus on a smaller number of potentially important context conditions.

Both programmes are convened and managed by the local authority and have been established in every county and city in the country. They start with an agreed purpose - the Age Friendly network (AF) is guided by a vision to ensure that the *"policies, services and structures related to the physical and social environment are designed to support and enable older people to 'age actively'"* (World Health Organisation, 2007). The Housing for Disabled People network (HD) was established to implement the actions identified in the government strategy with a particular focus on facilitating access for people with a disability, "to the appropriate range of housing and related support services, delivered in an integrated and sustainable manner, which promotes equality of opportunity, individual choice and independent living" (Department of Housing Planning and Local Government, 2011)

The governance of the network is similar for each programme; for example, each of the two programmes (AF and HD) is governed at the national level by a Network Administrative Office (NAO). This body is responsible for maintaining oversight, distributing models of best practice, and coordinating or standardising activities.

Geographically, all local authorities in the country have one HD network and one AF network, and each is managed or coordinated by a local authority employee. The membership of each network is similarly constituted; relevant stakeholder organisations are requested to nominate a representative, and members are generally selected by their organisation based on their role. Each network includes representatives of the relevant public sector agencies and local or regionally-based non-profit organisations providing services to the stakeholder group and the relevant stakeholder group (older people or disabled people). While the majority of members join

on a voluntary basis (i.e., they are not mandated to attend), the HD networks are made up of a mixture of mandated (public sector representatives) and non-mandated (non-profit organisations). They also share processual similarities in that both develop local strategies linked to a national framework or strategy and meet on a (generally) quarterly basis to discuss and progress agreed-upon actions.

The local governance network² in each county or city is the unit of analysis in this research, and as each local authority area in Ireland has both an HD and an AF programme, there are 60 potential cases in our study. However, at any given time, some will be less active or may be on hiatus, mainly due to changes in management (where the network manager has either been recently replaced or is due to be replaced).

Having set out the overall research design and the reasons behind the choices made, the next section will discuss data collection and the theoretical foundations behind instrument development and validation. It will provide conceptual and operational definitions of all the conditions included in the study and discuss the approach to be taken to the analysis of the data. I will provide a general introduction to Qualitative Comparative Analysis and SMMR before going on to describe in detail how the technique will be applied to this research project.

3.8 Data Collection and Research Ethics

The study had two phases of data collection: an online survey and a series of semi-structured interviews. Prior to carrying out the first phase of data collection, it was important to develop sufficient knowledge of the context and environment in which the cases operated. The researcher therefore commenced with a review of documentary evidence to identify many of the common features across all the networks in the cases as well as the features that vary. This review focused on factors such as age, size and structure of the network, availability of resources, and processes

² known locally as either an Alliance in the Age Friendly Case or a Steering Group in the Housing and Disability Case

routinely employed to work collaboratively (meetings, joint reports, joint applications for funding etc). This was achieved through a review of published strategy documents, some minutes of meetings where available, and an online discussion with a number of programme managers for the HD programme. This review also helped inform the development of measures using terminology that was familiar to the survey respondents.

Data collection was facilitated by the two national agencies that govern the networks. These national agencies acted as gatekeepers, supplying email addresses for the local authority manager in one programme and directly emailing the survey link to the local authority manager in the other. As an employee of the Housing Agency, the data collected by the researcher was required to serve two purposes; to provide data to answer the research questions outlined above and to contribute to the drafting of a second national strategy on housing for disabled people (Government of Ireland, 2022). The researcher's input to this strategy was published as a separate report³.

3.8.1 Research Ethics

Both phases involved non-vulnerable adults, many of whom were employed by organisations participating in the two programmes and a small minority of whom were disabled adults. To ensure that the research was undertaken with full ethical integrity, the *TCD Good Research Practice Guide* informed the design and implementation of the ethical procedures. Having submitted the proposed research design, methods, and instruments for review by the Chair of the TBS Research Ethics Committee, the research was deemed 'low risk' and was approved by the School of Business' Research Ethics Committee. Research participants were given detailed information about the content of the survey, the aims of the research, and their rights as

³ <https://www.gov.ie/en/publication/60d76-national-housing-strategy-for-disabled-people-2022-2027/>

participants, including the right to decline to answer any question or to end their participation at any point without any consequences, and all participants provided written informed consent.

Quantitative data was collected using a standardised online survey circulated to each local authority area. The survey asked participants to provide information about their organisational identity. Mindful of GDPR concerns, the national programme managers did not supply email addresses or other contact details for network members. They were offered the option of remaining anonymous or providing contact details if they wished to participate in a follow-up interview. A minority completed this section. No further personally identifiable information was sought. The names of interviewees were converted to an identifier code, which allowed the researcher to identify the local authority area from which they came but which would not be recognisable to any other readers of the research.

3.8.2 Data collection

As data collection took place in 2020 and 2021, during COVID-19 lockdowns, an earlier plan to attend meetings to observe interactions and distribute surveys had to be changed. As mentioned above, due to GDPR concerns expressed by the national agencies, the email addresses of all participating members in the networks were not supplied. Instead, the online survey was distributed to each local authority coordinator of the steering groups and the age-friendly programme manager, requesting that they circulate it to all members. It is impossible to know if every member of a Steering group or Alliance received the online link. In addition, to make the survey accessible to people with a disability or older people who did not have access to the online version, an alternative (accessible) version was developed, which involved rewording and restructuring the questions. Finally, a paper version was distributed (albeit by email due to the timing of data collection during COVID lockdowns), which respondents could complete by hand.

Survey data was returned by participants in 48 networks out of a potential total of 60 networks⁴. The researcher did not have access to membership details for each network, so the total membership is a rough estimate. Based on interviews with group members, it became apparent that the number of members in the HD groups varied considerably. However, the national office estimated they averaged approximately 15 members in each group. This gave a potential sample of 900 individual members. Several reminders were circulated, and from approximately 450 Steering Group members in the HD case, 177 responses were received, of which 88 completed surveys. This represents a response rate of 18% of the estimated population. In the AF case, 98 surveys were returned, of which 62 were fully completed. Data was cleaned on the basis of missing data, particularly incomplete surveys that were missing outcome data.

As a mixed-methods study, the survey respondents were asked if they wished to contribute further to the research by participating in an interview. Those who wished to do so were asked to supply contact details, and each response was followed up with reminders. Of the 33 networks with sufficient survey data, it was possible to get interviews with 25.

In addition to the 150 completed surveys, 62 semi-structured interviews were carried out with survey respondents who expressed an interest in providing further detail on the workings of the networks. The interviews were carried out online using Zoom, and interview questions were organised into the following themes:

1. Shared goals (questions regarding their roles and responsibilities),
2. Norms (questions regarding the rules that guide their interactions (questions regarding an induction process, formal rules or informal ways of behaving),

⁴ The methodology and survey data was published by the Housing Agency and is available online at <https://assets.gov.ie/213190/1006e667-976f-44ca-b007-26bf0a45ef8d.pdf>

3. Meetings (questions about interactions at meetings, the nature of the discussion, informal interactions outside of the meeting)
4. Shared information (questions about the extent to which members share information openly contribute their knowledge)
5. Mutual Support and Trust (questions about the nature of the relationships between network members and how they feel about others in the network)
6. Shared values (questions about different perspectives, whether they have had discussions about their organisational challenges, whether their perspectives have changed)
7. Effectiveness and achievement of collaborative aims (e.g., questions regarding the way they work together, facilitators and barriers in the collaborative process; any disagreements or challenges experienced, their view on effectiveness),
8. Shared identity (e.g., questions on their understanding of the group's identity, collaboration and partners' role in it, connection to the organisation, importance of collaborative, personal, professional, and personal aspects for their role and life).

The interview themes were used as a guideline and adapted to suit the flow of the conversation. In general, each theme was explored, though not using precisely the same words or sequence as initially set out. Each interview was recorded, transcribed in full, and then analysed thematically using NVivo software.

Most of the 62 interviewees were members of only one local authority network, but three interviewees were members of several groups and could compare and contrast between them. Two interviews were unusable because the surveys relating to their local authority contained too many missing values. In a third, the interviewee was unable to answer important questions or provide sufficient insight into the workings of the group due to insufficient experience with the group. The semi-structured interviews provide data that was be used to interpret the QCA solutions and probe the existence of causal mechanisms linking the conditions to the outcomes. A minimum of 2 survey responses were received from 34 networks. However, in order to triangulate the survey data with interview responses, the final cases selected for inclusion were those with both survey and interview data. A total of 12 local authority networks had sufficient survey data, but it was impossible to arrange an interview with any of the survey participants.

Therefore, the final sample included 22 networks, for which fully completed surveys and comprehensive interviews were available.

TABLE 3.1

DATA COLLECTION OVERVIEW

Methods	Measures
Survey N=134 individuals (fully completed) in 34 networks	Goal agreement/commitment; Shared information/resources; Shared norms; agreed rules and behaviours, problem-solving and conflict resolution; Mutual support; Self-reported measure of benefit; Self-reported measures of personal benefit (increased skill level, relationships)
Qualitative Interviews N=62 individuals in 22 networks	Exploring Shared identity and collaborative concepts;
Outcomes - Existing Data	HD; Increase in number of housing units for people with disability. AF; process indicators developed from administrative data.
Qualitative Comparative Analysis	Context; Programme; Local authority size; Process; Shared Goals; Regular Interactions; Group norms; Shared information; Trust and Mutual Support; Outcome; 1) Shared Identity 2) Subjective Effectiveness 3) Objective effectiveness

3.9 Conceptualisation of model conditions

This section will first discuss how each of the concepts in the model was operationalised in the research before going on to outline measures taken to increase the reliability of the survey instrument. As a reminder and a brief summary of the evidence from the extensive literature review above, Table 3.2 below presents some of the evidence supporting the inclusion of each of the conditions in the model.

TABLE 3.2

SUMMARY OF EVIDENCE

Concept/Condition	Theoretical justification
Shared goals	The knowledge of a shared goal that is present and important is known to be one of the essential features of the development of a group identity and has also been linked to effectiveness in governance networks (Mattessich and Monsey, 2001)
Regular Interactions	Through regular interactions members of a group develop a sense of connection to other group members and can help to link group membership to one's self-definition or identity. Repeated interactions in collaborative relationships develop mutual knowledge and common experience which increases the potential for trust development (Child, 2001)
Communication/Shared Information	Swaab et al (2007) found that communication and the sharing of information led to stronger group identification and the development of shared cognition.
Group norms or rules	When interactions are guided by "rules, norms, expectations, and roles that team members share, a shared culture can often emerge (Earley and Mosakowski, 2000; Romzek <i>et al.</i> , 2014)
Trust and Mutual Support	Trust can be both a cause and a consequence of identity formation– people who share similar values can develop a collective identity which results in a trusting bond between them, while trusted individuals can often also be those with whom one identifies.
Shared values	When people join groups, their frames of reference frequently converge on a common norm (Sherif, 1936). Meeussen et al found that value convergence was part of a process that developed through mutual social influence between group members and was linked to the development of shared identity (Meeussen, Delvaux and Phalet, 2014). The essential feature is that members follow a process of movement towards each other's perspectives.
Shared Identity	Identification has been defined as "the perception of oneness with or belongingness to some human aggregate" Evidence suggests that identification is

	linked to a range of positive outcomes and behaviours such as increased commitment to organisation or community ((Ashforth and Mael, 1989; Kane, Magnusen and Perrewé, 2012)
Effectiveness	Effectiveness has been measured in a variety of different ways; the majority of studies tend to focus on process measures such as agreement to collaborate, or the existence of a collaborative relationship. Many others use stakeholder satisfaction, achievement of objectives or self-reported measures of effectiveness and finally, a smaller number use an objective measure related to the purpose of the networks

3.9.1 Context and Environment

Following a review of documentary evidence as well as interviews with key managers in the national administrative offices, it became apparent that the two programmes, while having many similarities, also differ in potentially significant ways. For example, the Age Friendly national agency has developed a network of programme managers from the local authorities who meet on a quarterly basis to exchange information and examples of good practice and offer support to each other in carrying out their roles. The AF national agency also provides a handbook and templates for each sub-network, which standardise structures and procedures across each of the local networks. In contrast, the national agency for the HD network provides support on an individual basis through attendance at meetings, and cross-national subgroups had not been established in the HD case at the time that data collection was carried out. It is possible that the programme managers regular meetings and the handbook and templates provided may increase the likelihood that norms are developed in the AF programme that, in turn, influence the functioning of the group.

The Housing for Disabled People steering groups (HD) are made up of service providers from both the public and non-profit sectors as well as housing providers known as Approved Housing Bodies (AHBs), but up until recently, it was not a requirement that the groups include disabled people in their membership, and while some did, many did not. In contrast, the involvement of older people is one of the core requirements in the establishment of Age-Friendly (AF) networks (known as Alliances). The majority of local authority programme managers support a network of older people who have been constituted formally as Older People's Councils. These councils are

represented on the Alliance, ensuring that the views of the older person are central to the strategies and activities carried out.

The two programmes also differ in terms of their maturity – the Age Friendly programme has been in development since 2009, while the Housing and Disability networks were established more recently. The AF networks were established on a voluntary and gradual basis as different local authorities adopted the programme, whereas the HD networks were all established, more or less, simultaneously following the publication of a National Strategy on Housing for People with a Disability in 2011. Local authorities were mandated to establish and manage the networks to implement the actions in the ‘Implementation plan’, published in 2012.

When the AF networks were established, their first task was to consult with local stakeholders and, on the basis of their consultation, develop a local strategy. When this research was carried out, some AF networks had completed one strategy and were starting consultation on their second. The drafting of the second National Strategy on Housing for Disabled People was a key part of the work being done by the groups as the interviews were being carried out. To explore the potential impact of these differences, the programme (AF or HD) will be included as a condition for analysis later in the data analysis section.

Literature suggests that resources are a key factor influencing effectiveness, but this study did not have access to information on the finances of the two programmes. It was hypothesised that local authority size may influence the budget available for the programmes and, ultimately, the effectiveness of the programmes. Therefore, to examine the potential impact of local authority size as a proxy for resource munificence, cases were selected to reflect the range of possible types: large urban, small urban, large rural, and small rural.

3.9.2 Shared goals

As discussed above, the relevance of shared goals for the creation of a shared identity has been established in literature for many decades (Horton Smith, 1967). Conceptually, the sharing of a goal appears relatively unambiguous. These two programmes are both guided by high-level goals or vision statements presented in their strategies, which could be taken as an acknowledged goal that all members work towards.

“To facilitate disabled people to live independently with the appropriate choices and control over where, how and with whom they live, promoting their inclusion in the community and to further enable equal access for disabled people to housing with integrated support services” (Government of Ireland, 2022).

Making X (County/City) a great place to grow old in so that it becomes a desirable location, enjoyed and appreciated by older people and their families for its great quality of life (Age Friendly Ireland, 2014)

These vision statements articulate the high-level goals that might be shared by the majority. To measure the level of shared goals in the networks, three survey items asked whether respondents were aware of and clear on the importance of the goals. They were also asked if they agreed that other members were committed to the goals. Interviewees were asked about their awareness of the goals, their level of agreement with them, and their perception of the level of agreement of others in the group.

3.9.3 Contribution to Meetings

The literature supporting the importance of regular interaction between network participants is abundant and suggests that through their interactions, networks can break down barriers and increase trust between members (Lee et al., 2012). Unfortunately, due to COVID-19, data was collected during a period when no face-to-face meetings had taken place for two years. Therefore, no interactions took place between people in physical proximity to each other.

In the context of inter-organisational groups and networks, members interact in a number of different ways. For example, they attend meetings and raise issues for discussion by the group; they contact each other outside of meetings to share information, seek support, or organise joint activities; and before COVID-19, they interacted socially prior to or after the meeting and attended social events held specifically for the group or for other purposes. In some meetings, it is the norm that everyone should contribute to discussions or share information, while in others, the chair or coordinator of the group speaks for most of the meeting while others observe. A simple level of interaction can be measured by asking about the contribution each respondent makes to the meetings.

The nature of regular interactions changed during the period of COVID-19 as all meetings took place virtually, and this must also be taken into account in the research. This topic was explored in greater detail in the interviews, and interviewees were asked how they interacted with other members both during and after meetings. Numerous interviewees discussed how the pandemic, and in particular the move to virtual meetings, had an impact on the nature of the interactions, on the conduct of the meetings, and on the general dynamism of the network.

3.9.4 Communication/Shared Information

The sharing of information can be a crucial indicator of the developing trust between network members. Any indication that members are failing to share information that may be useful to others in the group could be seen as a breach of the growing relationship between members and a trust that others will reciprocate with the sharing of additional information. Information is a key currency in groups such as those in this study, and open sharing has the potential to break down barriers between people from different organisations and sectors. Interviewees were asked whether they had any experience of others in the group 'guarding their own patch' by failing to share information with the group. The survey included 3 items on information sharing and open discussion, which aimed to capture both the views of the individual respondent as well as the views of others in the group.

3.9.5 Group norms or rules

Evidence suggests that when individuals come together in a group, even in the most minimal of groupings, they will develop norms or codes of conduct to which members of the group are expected to adhere. Therefore, in effective networks, it is expected that members should have developed norms that facilitate group decision-making and solve or prevent conflict. The survey had three items that asked about the type of group-related norms that might have developed. Respondents were asked whether group norms existed around conflict-resolution, shared decision-making, and taking a solution-focused approach to issues. In the interviews, respondents were asked whether group members were aware of norms or rules governing behaviour, whether they had been responsible for the introduction of such norms, and whether the group had a formal or informal process for inducting new members into the group.

3.9.6 Trust and Mutual Support

Trust has been widely acknowledged as playing a crucial role in interpersonal work (and other) relationships. It helps establish a sense of psychological safety among meeting participants. It is self-evident that when individuals trust each other, communication and interpersonal interactions are enhanced. Group members are more likely to actively participate and engage with others, sharing relevant information, voicing their opinions, and providing constructive feedback.

In common with many concepts that lack a commonly agreed definition, trust is a concept that has proven to be difficult to measure in empirical research (Lyon, Möllering and Saunders, 2012). It is perhaps more easily perceived than measured. However, based on one of the definitions put forward in the literature, “the expectation that other actors will voluntarily reciprocate one-sidedly offered favours” (Bachmann, Gillespie and Kramer, 2012), it is reasonable to use the knowledge that group members would voluntarily support each other as a proxy for trust in the context of this research. The importance of context in relation to the measurement of trust has been stressed in the literature (Kramer, 2011). Group members may trust each other to act in the best interests of the network in one context, but in another, such as when a vital organisational interest is at stake, they may not trust them. Therefore, the aim of this research is to measure more tangible aspects of collaborative processes that produce a greater sense of trust (such as interactions, shared information and mutual support). Four survey items aimed to capture the level of mutual support offered and received by respondents. Issues around the level of cooperation offered were also explored with interviewees.

3.9.7 Shared values

The sharing of values represents a step in a process that starts with the sharing of information, leading to an increased understanding of the perspectives of others. When people understand each other’s perspectives, they are more likely to empathise and work cooperatively or collaboratively. One survey item measured the sharing of values, and a further item asked whether respondents believed that their views were respected by others.

3.9.8 Survey Items

To measure the conditions related to collaboration in networks, a series of questions were developed, strongly grounded in literature on determinants of effectiveness, linked to the factors

or conditions identified in the research model (see Table 3.3 below for the list of questions used). Based on the theoretical model (Chapter 2), the survey initially contained 21 items that measured the conditions; shared goals (GOAL), shared information (INFO), shared norms (NORM), mutual support (SUPP) and interactions at meetings (MEET); as well as 3 items that measured the outcomes: – identity (IDEN), and one item each for subjective (or Network) effectiveness (SUBEFF) and objective effectiveness (OBJEFF). For each of the questions below, respondents were asked to state how often they felt the statements were true and were given a range of options (Always/almost always/Sometimes/Rarely/never/Don't know. Their responses were given a weighting and reverse coded for negative items. The three items for each condition were then summed to give a final raw figure for each condition. These raw figures were then calibrated to allow for analysis in a QCA study. (Full description of the calibration process in Section 4.4 below)

TABLE 3.3 SURVEY STATEMENTS

ID	Question used
NORM1	If conflicts or disagreements arise, members of the group discuss them openly to find a solution
NORM2	Members of the group challenge each other to find better solutions to issues
NORM3	Members of the group are encouraged to express their views before a decision is made
INFO1	Members of the group share information freely to increase understanding of issues
INFO2	Some members of the group seem reluctant to tell others what they really think
INFO3	I am reluctant to offer my opinion about the matters being discussed
SUPP1	Many members of the group sit back and let others do the work
SUPP2	Members of the group offer support and advice to each other to help solve problems
SUPP3	I do not feel members of the group would support me if I raised an issue that required their help
GOAL1	Members of the group share the same goals and are committed to working together to achieve them
GOAL2	I am unclear about the goals of the group

GOAL3	Members of the group do not seem very committed to achieving the goals we have decided on
MEET3	Members of the group do not really encourage or value my contribution
MEET1	Different people lead the discussion, and most people contribute equally
MEET2	I find it difficult (due to shortage of time/competing priorities) to get to meetings so cannot contribute much. I find it difficult to contribute as I don't feel my level of experience and knowledge matches others in the group. I attend most meetings but do not contribute much to the discussions or decision-making (for other reasons) I generally contribute to discussions and decision-making when the discussion relates to my organisation's core activities. I am happy to contribute to most discussions and offer help or resources (e.g., time, expertise, knowledge) to others in the group wherever I can
VALS	I do not feel members of this group share my values
RESP	Members of the group do not show much respect for me or my views

3.9.9 Outcome measures

Following a review and assessment of existing scales (see section 2.6), none of the existing scales were considered appropriate to the research setting and context. Therefore, an online survey instrument was developed that was more appropriate to the type of shared identity that can develop from interactions between members of governance networks. To measure shared identity, the survey incorporated what is known about group or collective identity and collaboration in governance networks from the literature review. A tripartite conceptualisation for shared identity was followed (Henry, Arrow and Carini, 1999) with cognitive (IDEN1 & IDEN4), affective (IDEN3), and behavioural dimensions (IDEN2).

TABLE 3.4 *MEASURES OF SHARED IDENTITY*

IDEN1	Cognitive (evaluation of others)	Members of the group are primarily focused on the activities carried out by their organisation (reverse coded)
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IDEN2	Cognitive (awareness of unity)	We are very united as a group, and we have formed a bond through working closely together
IDEN3	Affective (feeling of belonging)	I do not feel that I really belong to this group (reverse coded)
IDEN4	Behavioural	I could achieve more by working with colleagues in my own organisation (reverse coded)
SUBEFF	Self-rated measure	Overall, how do you feel the Alliance work together? (please tick only one box) Highly effective (innovative, united, committed to and successful in achieving the goals) Reasonably effective (mostly united and making some progress towards goals) Not very effective, (making a little progress towards goals but not united or working well together) Not at all effective (some conflict, no real commitment or progress towards goals) Don't know (cannot make a judgement)

One of the important questions to be addressed is what constitutes effectiveness in the context of the governance networks in this study. As we know from previous studies, this is by no means an easy question to answer when considering the characteristics of a governance network. Because there is no consensus on what constitutes effectiveness in a governance network, the operationalisation of this measure differs greatly from study to study. For some, it is focused on client-level or community-level effectiveness; while for others, effectiveness is measured at the network level using a measure of the capacity of the network to achieve stated goals, to innovate, or to remain in existence.

The systematic review of the literature on effectiveness carried out for this study found that the majority of empirical studies reviewed used process measures such as agreement to collaborate or the existence of a collaborative relationship as outcome indicators. The 'attainment of goals' was also one of the most frequently used measures, along with measures such as

‘implementation of activities’ or ‘number of promotions, programmes, policy influences or physical projects implemented’. In a minority of studies, the achievement of goals was operationalised into specific quantifiable measures such as the number of services provided at the lowest cost (combined into a single measure) (Cristofoli and Markovic, 2016).

In the governance networks that were the subject of this research, community stakeholders come together to tackle a societal issue and to develop interventions or actions to bring about change and produce better outcomes for older people or people with a disability. However, one of the key issues that can arise with the measurement of effectiveness in such a setting is the attribution of outcomes to the network rather than to the constituent organisations. For example, it can be difficult to distinguish between network outcomes that are the result of collaboration and those that are due to the efforts of individual managers carrying out their normal roles. To overcome this difficulty, many researchers have used self-reported measures of satisfaction or achievement of goals as a measure of network effectiveness.

Having reviewed the evidence (see section 2.2.4) in this study both subjective ratings and objective indicator data are used. The subjective measure was developed from one survey question asking members to rate their satisfaction with the effectiveness of the network using a Likert scale with four items - Highly effective (innovative, united, committed to and successful in achieving the goals); Reasonably effective (mostly united and making some progress towards goals); Not very effective, (making a little progress towards goals but not united or working well together); Not at all effective (some conflict, no real commitment or progress towards goals).

For the AF programme, process data collected by the national agency was be used, and for the HD case, national statistical data on the provision of housing for disabled people was be used. In the HD networks, each local authority must submit returns on the number of houses allocated to people with a disability. The proportion of houses allocated to people with a disability (from the total social housing allocation) was used as an indicator of effectiveness. An alternative measure – the ratio of allocations to identified need – was considered but rejected as inadequate, based on evidence from interviewees that identification of needs was a difficult procedure and that some managers lacked confidence in the accuracy of their figures. This was also borne out by allocations made in categories where there was no identified need (e.g., allocations made to people with a sensory disability in areas where the identified need was 0).

To develop the objective measure, or the measure of effectiveness at the community level, data on all social housing allocation over a period of six years (2016 – 2021 inclusive) as well as the allocation to disabled people, was used. The researcher developed a measure based on the proportion of disability housing allocated out of the total social housing allocation, and this was averaged over the course of six years. The average for the full sample was 7% and it ranged from a low of 3% to a very high level of 18.6%. The cases were categorised into very high (12%+), high (9-12%), medium (5-8%), and low (0-4%) and given a score of 1-4 in the raw data.

No similar objective outcome data was available for the AF case; instead, objective process indicators were used to evaluate effectiveness. Based on evidence supplied by the lead agency, one of the core objectives of the Age Friendly programme is to ensure that 'Age Friendly principles' become embedded in the processes and structures of the local authority. In practice, this means that by ensuring that all relevant sections of the local authority (such as housing, community and public spaces) are aware of and attuned to the issues that older people may encounter in the public realm, the local authority will achieve greater 'age-friendliness'. Therefore, an indicator was developed using three items in annual returns received by the national agency from the local coordinators; Age Friendly principles written into (local authority) Corporate Plan; AF principles in the County Development Plan; and whether AF is working actively with [structures established by the local authority as representative and consultative bodies, linking local stakeholders to the local authority].

In addition, a number of exploratory meetings with members of the two national lead agencies and network members were held to test the pilot instrument. Based on feedback received, the wording of survey items was simplified, and the option to add open text responses was offered. The outline interview protocol was also shared with the two national agencies, and both were happy that the questions and wording were suited to the context and population.

The governance networks in this study, in common with others, must be seen as dynamic groups that are impacted by changes in membership over time (Bouas and Arrow, 1995). For example, it is known that the loss of one enthusiastic and influential member can change the attitudes of others in the group (Barsade, Coutifaris and Pillemer, 2018). Therefore, rather than using a Likert-type response (e.g., strongly agree to strongly disagree), respondents were asked how frequently a particular statement was true or not true of the network they belonged to. It is not the strength

of belief that is relevant in this case, but rather, to capture the dynamism of the group, it is their view of how frequently the statement is true that is most important.

Before moving on to the QCA analysis, the next section will first briefly discuss the tests carried out to assess the validity and reliability of the survey instrument.

3.10 Validity of the Survey measures

A number of procedural remedies and statistical tests were carried out to establish the validity of the survey items and to increase the reliability of the instrument. Prior to data collection, the content validity of the instrument was established by grounding it strongly in the existing literature. Staff from the national administrative offices of both programmes were consulted, and an online discussion was arranged with network members to seek their views on the planned research and the content of measurement instruments before carrying out pilot tests of the survey instrument.

One of the first evaluations of the psychometric properties of survey items, advised by Clark and Watson (1993), is to examine the response distributions of the items and to exclude those that have unbalanced or highly skewed distributions. These items should be removed because highly skewed distributions offer little information, are unlikely to correlate with other items in the pool, and therefore perform badly in further analyses (Clark & Watson, 1993). Based on this recommendation, two of the original 20 items, which aimed at assessing the extent to which network members shared values or were mutually respectful of each other, were excluded as virtually all respondents gave the same (positive) response. These items were further analysed in the qualitative interviews, revealing similarly modest variation or non-committal responses from interviewees. An additional question, which asked respondents to evaluate their own contribution to meetings and was asked in a different format from the above 'scale' items, was added to the potential scale items, resulting in a total of 19 items.

A measure such as Cronbach's Alpha is frequently used to assess the validity and reliability of a survey instrument. Nunnally (1967) defined reliability as "*the extent to which [measurements] are repeatable and that any random influence which tends to make measurements different from occasion to occasion is a source of measurement error*" (p. 206, quoted in Cortina, 1993). The validity of a measure tells us to what extent the instrument measures what it sets out to measure.

Developed in 1951 by Cronbach, the Alpha coefficient is a measure of the extent to which the items on a scale measure the same concept and correlate with each other. The more the items are correlated with each other, the higher the value of Alpha will be, and the closer this number is to 1 the greater the internal consistency of the scale.

While there has been some debate about the level of Alpha that can be considered adequate (Lance, Butts and Michels, 2006). While many authors consider that 0.7 is adequate, one of the seminal articles on this topic (Nunnally, 1975) states that in cases where “**important decisions** are made with respect to specific test scores, a reliability of 0.90 is the minimum that should be tolerated, and a reliability of 0.95 should be considered the desirable standard (pp. 245-246). A more commonly accepted view is that of Zeller and Carmines (1982) who state that .8 is the minimum level researchers should allow.

Initially, the Cronbach’s Alpha for the 19 items was 0.896. However, the deletion of one of the 19 items, “*Members of the group are primarily focused on the activities carried out by their organisation*”, would increase the Cronbach’s alpha to a very acceptable level.⁹²¹ When the four items developed to measure the presence of shared identity were then analysed separately, they obtained a Cronbach’s alpha of only 0.325 and again, deletion of the item about members’ primary focus would increase the alpha substantially to 0.674. This item was therefore excluded from further analysis.

TABLE 3.5

RELIABILITY - CRONBACH'S ALPHA FOR SURVEY ITEMS

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.921	.920	18

As individual items (rather than a scale), they provide useful data on the affective and cognitive aspects of network membership. With a Cronbach's Alpha of .921 (see Table 3.6), while not reaching the highest desirable level (0.95) as suggested by Nunnally, it does, however, exceed .9 and the items used in this research should therefore be considered reliable.

TABLE 3.6

RELIABILITY STATISTICS

Item-Total Statistics	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
Conflict solved by discussion	40.93	76.699	.507	.422	.892
We are solution focused	41.49	78.400	.505	.396	.892
Joint decision making	40.76	75.667	.632	.541	.888
All support each other	41.25	76.989	.578	.497	.890
Members let others do the work	40.74	75.289	.765	.718	.885
No feeling of mutual support	40.59	75.488	.664	.636	.887
My contrib not valued	40.53	76.562	.745	.727	.886
All share info freely	40.65	75.786	.772	.702	.885
Others reluctant to share info	41.05	76.005	.628	.526	.888
I am reluctant to share info	40.65	78.494	.585	.570	.890
Equal contrib to meetings	40.99	76.726	.605	.511	.889

Share Goals and are committed	40.79	74.495	.722	.703	.885
Unclear about goals	40.90	75.115	.701	.628	.886
Others not committed to goals	40.88	77.325	.568	.478	.890
My contribution to meetings	41.19	85.771	-.016	.088	.905
All united as a group	41.90	82.443	.282	.203	.897
I don't feel belonging	40.57	75.180	.753	.714	.885
Better working with own colleagues	40.76	74.230	.710	.685	.885
Primarily focused on own org	42.54	89.805	-.233	.185	.921

The second measure to be considered is the level of inter-item correlation. Clarke and Watson make an important distinction between internal consistency and dimensionality; internal consistency measures the extent to which the items are inter-correlated, while dimensionality refers to whether the scale measures one or more underlying constructs. Arguing that the inter-item correlation is a better measure of internal consistency, they suggest that the average inter-item correlation should fall within the .15 to .50 range, and if the aim is one single dimension, the ideal is small, highly similar correlations. (Clark, L.A. & Watson, 1993). The average inter-item correlation for the items in this study is .39 which falls well within the recommended range.

TABLE 3.7 SUMMARY ITEM STATISTICS – NUMBER OF ITEMS (18)

	Mean	Minimum	Maximum	Range	Maximum / Minimum	Variance	N of Items
Item Means	2.364	1.382	2.757	1.375	1.995	.125	18
Item Variances	.650	.401	.912	.511	2.274	.017	18
Inter-Item Correlations	.390	-.144	.756	.900	-5.249	.038	18

3.10.1 Common Method Bias

The use of self-rated measures has been justified on the basis that, in many cases, alternative data sources were not available. However, their use has been controversial, and there has been some debate about the use of self-rated measures. Those who support their use have questioned the reliability and validity of the objective measures, while others have argued that self-reports and reports of perceptions can be open to Common Method Bias (CMB). This is a concern that most commonly arises when several variables are measured using the same method (e.g., survey questionnaires), leading to potential inaccuracies in the results caused by systematic errors or distortions in the data. There are a variety of reasons why this may occur; research participants may provide inaccurate information based on a flawed recall of events, social desirability bias, or respondent fatigue. Respondents may also provide consistently positive or extreme responses to a range of questions, creating spurious relationships that do not reflect the true nature of the phenomenon being studied (Podsakoff *et al.*, 2003).

CMB is one of the most frequently discussed topics relating to the reliability of survey data. Chang and colleagues (Chang, Van Witteloostuijn and Eden, 2010) reviewed the literature on common method variance and common method bias and identified possible remedies, the most obvious of which is to avoid any potential CMB in the research design stage by using other sources of information for some of the key measures. In particular, if possible, they advise that the dependent variable should be constructed using information from different sources than the independent variables. Other options include mixing the order of the questions and using different scale types. Many of the procedural remedies advised in the literature were used (Podsakoff *et al.*, 2003). For example, Podsakoff and colleagues have advised that it is best practice to have two separate ways of measuring the conditions and outcomes. This separation can be achieved by using temporal, proximal, psychological, or methodological means. In this study, one of the identity measures was collected in a follow-up question circulated a number of months after the original questionnaire. This allowed a temporal separation between that and the original identity question, while also avoiding any potential contaminating factors that can arise if the lag between the two measurement times is inordinately long. The objective effectiveness measure was not obtained from the same data source as the conditions, and while the subjective effectiveness measure was obtained from the same survey as the conditions, the question format was different and did not directly follow the condition statements.

There are also statistical remedies to detect the possibility of CMB. The most commonly used test tends to be a post-hoc Harman one-factor analysis, which was also used in this study. This is a statistical procedure used as a diagnostic tool to identify the presence of common method bias in data rather than to mitigate its impact. The test involves carrying out a factor analysis on the items used in the study to assess the proportion of variance explained by a single factor. If a single factor accounts for a substantial proportion of the total variance, it suggests that common method bias (CMB) may be present. Using SPSS software, the researcher carries out an exploratory factor analysis, and using the unrotated factor solution, the amount of variation attributable to one single factor is revealed. In this study, the test found that 43.5% of the variance was explained by one factor, which is below the problematic level of 50% (Podsakoff and Organ, 1986).

Overall, the tests and procedural remedies suggest that the impact of common method bias in this research is minimal. Having set out the overall research design and the reasons behind the choices made, the next section will discuss the approach to be taken to the analysis of the data, providing a general introduction to Qualitative Comparative Analysis before going on to describe in detail how the technique will be applied to this research project.

3.11 Data Analysis – Qualitative Comparative Analysis (QCA)

The analytical tool to be used to systematically compare the 22 cases in this study is QCA, specifically using the 'QCA' and 'SetMethods' packages in R (Oana and Schneider, 2018; Duşa, 2019).

One of its key features is that it can accommodate a broader concept of causality than other methods, which makes it well-suited to the subject matter in this study, as much of the research carried out to date has acknowledged that no single causal factor can be identified as leading to the outcome of an effective governance network. Marek et al. (2015) suggested that the numerous factors linked to effectiveness can best be thought of as “interlocking gears that move the wheels of collaboration...the more the gears spin in the appropriate direction the faster the wheel of collaboration may go” (p.4-5). The concept of interlocking gears fits with the notion of “conjunctural causation” in Qualitative Comparative Analysis, which suggests that a combination of factors can lead to the outcome (Berg-Schlosser *et al.*, 2012).

Qualitative Comparative Analysis (QCA) has frequently been described as a method that aims to bridge the divide between quantitative and qualitative techniques (Berg-Schlosser et al., 2012) by integrating “...the best features of the case-oriented approach with the best features of the variable-oriented approach” (Ragin, 1987 p.84). Ragin argues that case-oriented comparative methods offer valuable insights into complex social phenomena by focusing on specific cases and historical chronologies. While traditional qualitative and quantitative strategies may lead to broader generalisations and patterns, the case-oriented comparative method delves into the intricacies of individual cases to uncover causal mechanisms and provide in-depth analysis. By systematically comparing cases using formal tools and a process of calibration that assigns values to concepts, it provides a more nuanced understanding of social phenomena (Ragin 1987).

It is largely based on a configurational approach to causality within a complex realist ontology and sees systems as “constellation of interconnected elements”. In addition to identifying the patterns of multiple conjunctural causations, it also aims to “simplify complex data structures in a logical and holistic manner” (Rihoux *et al.*, 2012 p.33). As an analytical approach, therefore, it is particularly suited to the goals of this research because of its ability to facilitate analysis of complex social settings and systems by acknowledging that many different combinations of factors may lead to the same result, “...a conception of causality referred to as multiple conjunctural causation” (Berg-Schlosser *et al.*, 2012 p.7).

Before proceeding with an outline of the key steps in carrying out a QCA study, it is important to understand the key differences between QCA and quantitative statistical analysis. For example, in inferential statistics, the principle of variation is paramount, where researchers aim to explain as much variance in the dependent variable as possible by identifying significant predictors. In set-theoretic methods like QCA, the principle of equifinality is emphasised, and the focus is on identifying these diverse pathways rather than explaining variance.

Inferential statistics often seek to reduce complexity by isolating the effects of individual variables, assuming that each variable has an independent impact on the outcome. In contrast, set-theoretic methods focus on identifying necessary and sufficient conditions for the outcome. This approach recognises that certain conditions may be necessary but not sufficient, while others may be sufficient but not necessary, and aims to uncover the combinations of conditions that produce the outcome.

Inferential statistics often assume linear relationships between variables and rely on linear models to make predictions. On the other hand, set-theoretic methods acknowledge the complexity of causal relationships and allow for non-linear and interactive effects among conditions. This provides a more nuanced approach that may not be captured by linear models. Finally, inferential statistics seek to generalise the findings derived from large samples to draw conclusions that apply to a broader population based on sample data. Set-theoretic methods, on the other hand, prioritise case sensitivity, recognising that causal relationships may vary across cases due to contextual factors. Therefore, findings in QCA are often more contextually bound and emphasise the importance of case-specific analysis (Schneider, and Wagemann, 2012).

3.11.1 Key steps in carrying out a QCA study.

Carrying out a QCA study involves a number of key steps: QCA has its origins in set theory and Boolean algebra and on the basis of set theory, the researcher must first assess the features of a case to determine whether or to what extent the case belongs to a particular set, rather than breaking down case attributes into variables (Ragin *et al.*, 2012). For the purposes of a QCA study, sets have been defined as *“qualitatively defined concepts that establish a difference in kind. The adequate calibration hinges on the definition of this concept, based on case knowledge”* (Schneider and Wagemann, 2012 pp.30-31)

Ragin specifies that a target set of cases must be defined at the outset, and each case is then calibrated on the basis of their membership in that target set. In QCA, a target set refers to the specific category or concept that researchers aim to analyse or evaluate using set-theoretic language. It is essential to carefully identify and define the target set in QCA research based on theoretical and substantive knowledge. Originally developed with binary measures (crisp set QCA), where all cases are either ‘in’ (assigned a score of 1) or ‘out’ (assigned a score of 0) of the set, the approach to be used in this study is fuzzy set QCA (fsQCA). This approach was chosen over the crisp set approach because many of the conditions in this study cannot readily be assigned a score of 1 or 0 – ‘in’ or ‘out’ of the set. Instead, more graduated membership of a set applies, and the fuzzy set approach determines partial membership of the set by scoring conditions along a scale from 0 (fully out of the set) to 1 (fully in the set) with either 3 or 5 measures in between representing the ‘anchor’ points that were used to transform data into measures that signify set membership or non-membership.

It is necessary to specify what conditions are required for full membership (fuzzy score of 1.0) in the target set and what conditions lead to full exclusion (fuzzy score of 0) from the target set. Based on the definition above, in this study target sets include concepts such as 'good goal commitment' and 'awareness of a shared identity' or 'high level of subjective effectiveness'. The boundaries for the case must be delineated with the aim of identifying sufficient cases that parallel each other as well as those which are likely to differ, based on the outcome of interest (Berg-Schlosser *et al.*, 2012).

Determining the criteria by which cases belong to a target set is carried out in the calibration phase of the research and is dependent on prior theory and on the researcher developing an in-depth knowledge of the cases (Gerrits and Verweij, 2013). The understanding of each of the concepts included in the research model, established by the extensive review of literature and the knowledge of the individual cases (to be discussed further in Chapter 4), is crucial to the calibration process described below.

Having carried out the calibration process, the next step is to carry out tests of necessity. The concept of necessity in social science refers to a condition that must be present for a particular outcome or phenomenon to occur. This necessary condition is crucial for causing the desired effect, but it does not guarantee that the effect will definitely happen. For example, in the context of social revolutions, a breakdown of the state may be considered a necessary condition for a social revolution to take place, but not every state breakdown will result in a social revolution (Rihoux and Ragin, 2009). Consideration of whether a condition is necessary or not is carried out by an examination of the parameters of fit, which in a QCA study typically refer to two primary measures: consistency and coverage. Conjunctions and disjunctions may also be identified. Disjunctions can be 'higher order concepts' as described by Dusa (2019) which may result from the joining of two or more concepts that must be interpreted by the researcher based on their knowledge of relevant theory and their knowledge of the field.

The next important step is the construction of the truth table, which is made up of rows that represent every possible combination of conditions identified in a study and displays the distribution of empirical cases across these combinations. Each row in the truth table represents a statement of sufficiency, indicating the presence or absence of certain conditions related to the outcome being studied. The aim of the minimisation process is to produce the simplest possible expression to explain the outcome. Dusa (2019) defines 'expression' in this context as "sums of

products, or unions of intersections, or disjunctions of conjunctions (of causal conditions)” (p.179) or alternatively as a synonym for a causal configuration (Duşa, 2019)

The importance of the truth table in QCA lies in its role in identifying necessary and sufficient conditions that contribute to the occurrence of a particular outcome. By systematically mapping out all possible combinations of conditions and their relationship to empirical cases, the truth table helps researchers determine patterns of causality and establish the conditions that are crucial for producing the desired outcome (Ide and Mello, 2022). After constructing the truth table, the next step is the procedure of logical minimization to simplify the logical functions and identify the different solutions that explain the outcomes.

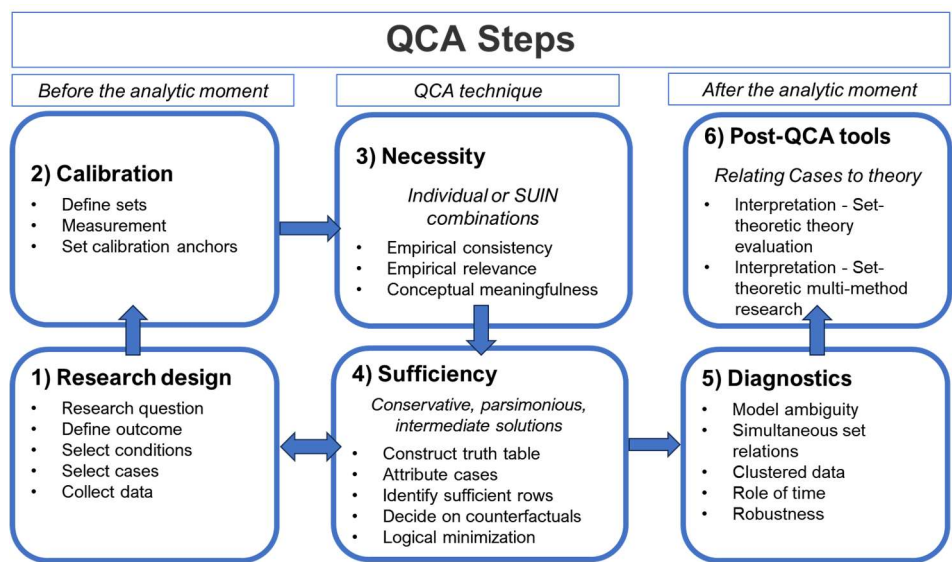
Analysis of sufficiency uses three parameters of fit: consistency, coverage, and proportional reduction in inconsistency, or PRI. Consistency sufficiency is similar to necessity, and the values range from 0 to 1 and the higher the value (closer to 1) the more consistent the empirical data are with the statement of sufficiency. Consistency indicates the degree to which a solution aligns with the underlying empirical evidence, similar to significance values in statistical research. The second parameter to be checked is the PRI value, which tells us to what extent the condition is a subset of only the outcome and not also the negated outcome. This value can also range from 0 to 1 but should ideally be higher than 0.6. The closer this is to 0.5 (or below) the less we should consider it sufficient. Finally, we look at the empirical relevance or coverage of the sufficiency statement, which tells us how much of the outcome can be explained by the condition and can be considered the QCA equivalent of coefficient magnitude.

If an XY plot is used to visualise the sufficiency relationship; a small consistency score can generally be explained by the number of cases below the diagonal and their distance from the diagonal; a large number of cases below and far from the diagonal is likely to mean a low consistency score. The XY plot is used to identify cases below the diagonal, known as deviant consistency cases (DCK). While all cases below the diagonal reduce the consistency score, those cases that differ in kind, i.e. DCK cases (being members of the condition but not the outcome), contradict the statement of sufficiency to a greater extent (Oana, Schneider and Thomann, 2021)

Minimisation of the truth table produces three solution types; the Complex solution (CS), the Parsimonious solution (PS) and the Intermediate solution (IS). The three solutions vary, based on what is included in the minimisation. For example, the Complex solution does not include any of

the truth table rows with insufficient empirical evidence (remainder rows), the Parsimonious solution allows the inclusion of remainder rows if they contribute to a more Parsimonious solution and the Intermediate solution, as the name suggests, includes remainder rows if they contribute to a more Parsimonious solution and are in line with the directional expectations of the research model. In general, researchers tend to find that the complex solution can be overly complicated without adding significantly to the understanding of causal configurations (Fiss, 2011) For causal analysis, therefore the parsimonious solution is sometimes considered the most appropriate one to use, because all of the conjuncts in the solution formula are based on the existing empirical evidence and if one is removed the solution is no longer sufficient for the outcome. However, this has recently become a matter of debate (see section 3.11.6)

FIGURE 3.2 QCA STEPS



Source: (Oana, Schneider and Thomann, 2021)

Having carried out the above steps, the findings are presented in the form of Boolean expressions using Boolean notation (see table 3.8), reporting on all relevant parameters of fit.

TABLE 3.8 BOOLEAN NOTATION

Logical AND (Boolean multiplication)	*
Logical OR (Boolean addition)	+
Negation or Absence of a condition	~ or lowercase letters

In addition to the steps taken to identify the QCA solutions, it is important that robustness tests are carried out to assess the stability of the findings against different case and condition selection decisions and to report the results to support the validity of the analysis (Schneider, Vis and Koivu, 2019)

3.11.2 Calibration of the Dataset

Calibration differs from conventional variables in that fuzzy sets are calibrated using external criteria which... *“conform to the researcher’s conceptualization, definition and labelling of the set in question”* rather than using sample-specific measures such as means and standard deviation (Ragin, 2008). Calibration plays a crucial role in grounding measures in theoretical and substantive knowledge by ensuring that the measurement process is aligned with the underlying concepts and constructs being studied. Calibration involves setting precise thresholds and benchmarks for categorizing cases into different membership levels within a set, based on the researcher’s substantive and theoretical understanding of the phenomenon under investigation (Ragin, 2008).

To calibrate the data for a fuzzy set QCA, the researcher must specify three anchor points; the level at which the case is fully ‘in’ the set, the point at which the case is fully out and the cross-over point, or the point at which the case is neither in nor out of the set. Using software, the variables or conditions are then transformed using a logistic function into a “log odds metric” or the log odds of full membership of the set (Ragin, 2008), fitting the data between the three anchors. However, Schneider and Wagemann (2012) warn against using measures such as the mean or median in order to define cases as being either in or out of the set, stating that...“such purely data-driven calibration strategies are fundamentally flawed” ...and “are properties of the data at hand and as such void of any substantive meaning vis-a-vis the concept that one aims to capture with a set” (Schneider & Wagemann, 2012). Instead, the researcher must use both conceptual and case knowledge to set the anchors.

TABLE 3.9 STANDARD CALIBRATION ANCHORS

Fully in the set	1.0
More in, than out of the set, conditions partially present	0.67
Crossover point (maximum ambiguity) Neither in nor out of the set	0.5

More out than in of the set, conditions partially absent.	0.33
Fully out of the set	0.0

While many of the potentially relevant contextual conditions are common across all the networks, I consider the influence of two: – programme differences (AF or HD) and the size of local authority. This approach aims to avoid the problem of limited diversity – where many truth table rows lack any empirical evidence (Ragin and Sonnett, 2004). Schneider has advised that, just as in statistical studies, high numbers of conditions should also be avoided in QCA, largely because they will increase the number of logical remainders, which in turn will exacerbate the problem of limited diversity (Schneider and Wagemann, 2006). One solution to this problem, advised by Schneider (2010) is to create a type of “master or macro-variable” (p.6) The concept of ‘programme differences’ was developed as an indicator to capture a range of procedural differences between the two programmes

To calibrate the ‘size’ indicator, a single measure was developed based on the population of the local authority area and the size of the overall local authority budget in proportion to the population. Using these two indicators, cases were placed on a scale from 1-4 with 1 representing the area that had both a small population and a small local authority budget and 4 representing the largest area on both indicators. The ‘size’ set can therefore be described as a set of large, well-resourced local authorities. These measures were then calibrated using three anchors; 1.55 means a case is fully out of the set of large, well-resourced local authority areas; 2.15 is the cross-over point; and 3.25 signifies the point at which a case can be considered to have full membership in the set. Because the programme indicator is dichotomous, it was calibrated as a crisp set condition, with 1 signifying membership of the Age Friendly programme (AF) and 0 signifying membership of the Housing and Disability programme (HD)

3.11.3 Analysis of Context and Environmental factors

Schneider and Wagemann (2006) proposed that contextual conditions can be analysed separately in an enhancement of the standard QCA, known as two-step QCA. They suggest that in research carried out on conditions that can be separated into two distinct groups, remote and proximate, the data can usefully be analysed in a stepwise way. Schneider (2019) defines remote factors as those that tend to be stable and are both causally and substantively further from the production

of the outcome. They tend not to be open to purposeful changes but and are instead part of the context within which the outcomes are produced. Proximate factors, in contrast, originate closer to the outcome, both in time and space, are more volatile, are often subject to conscious manipulations by actors, and denote characteristics of the unit of analysis (Thomann and Manatschal, 2016). The logic of the two-step procedure is that it assumes contextual conditions exert an influence on the outcome and it seeks to specify which conditions are necessary (Schneider, 2019)

Contextual conditions explored in other studies include factors such as resource munificence, system stability, and socio-political environment (Smith, 2020) which were each found to have an influence on effectiveness. The networks in this study are geographically similar; each represents a local authority area, and they therefore do not differ, to any great extent, on the basis of system stability or socio-political environment, and data on resource differences was not available across the majority of cases. However, a number of contextual conditions can be seen as relevant and suitable for a two-step analysis.

Nowell (2019) has argued that governance networks must be seen as existing within a broader population of networks that are all operating in a social policy area. She introduced the concept of 'differentiated or undifferentiated' networks to apply to networks that are linked together by overlapping or shared membership. I argue that the concept of overlapping networks or having shared membership in numerous different groups will increase the likelihood of members of the networks developing trusting relationships based on regular interactions and mutual support. In geographical areas with a large or dispersed population, networks are less likely to have overlapping membership, whereas those with small populations may be familiar with each other or may have developed relationships through their membership in overlapping groups. I therefore include population size as one indicator in an assessment of the contextual condition 'size'.

In local authorities with small staffs, there is a greater likelihood that administrative staff will have broader-ranging responsibilities, may have overlapping membership in several working groups, and may meet members of these groups in several different contexts. Therefore, to capture the size and complexity of each of the local authority areas, two indicators were used; the population of each local authority area and the total number of staff employed. The uncalibrated measures ranged from 1.0 for a local authority with a small population (50,000 – 75,000) and a modest

number of staff (300-400) to 4.0 for a local authority with a large population (more than 500,000) and a staff of more than 3,000.

These two contextual factors were explored in a two-step QCA analysis, which involves analysing only the remote conditions first, checking for necessary conditions, and only including those cases that exceeded the 0.9 cut-off for necessity.

Fuzzy set QCA, typically involves two stages of analysis. It starts with a within-case analysis which involves a detailed consideration of the underlying theoretical constructs or attributes that contribute to or make up each condition. This process informs the coding of qualitative data and the transformation of quantitative data into levels of set membership. Having calibrated the data, the next step is the truth table analysis. In a truth table, each column represents a condition or variable and the rows depict the combination of logically possible conditions with each row differing qualitatively from the others (Schneider and Wagemann, 2012).

QCA differs from standard statistical analysis in that it is common in QCA analysis, and even encouraged, to derive a number of different causal models rather than specifying a single model that best fits the data from among the comparable cases (Ragin, 1987). A solution term is produced by the analysis, which sets out the combination of conditions that produce the outcome. Boolean minimization is then used to reduce the number of conditions required to produce the outcome, simplifying the overall formula found through the analysis. This minimal formula contains a list of the prime implicants that explain the outcome.

Another key feature of QCA is that the researcher is expected to transparently justify the choices that they have made in the course of the analysis. For example, the researcher must choose whether they wish to obtain the shortest (most parsimonious) solution or a more complex solution, which will generally be made up of a number of conjunctions. If the most parsimonious solution is chosen, assumptions will be made by the software, and cases that have the potential to exist but that have not been observed empirically will be included in the minimisation. While the route to each of the different options is determined by the software used, the researcher is expected to choose and justify the choice on theoretical or empirical grounds (Rihoux 2006). In this study, QCA provides a way of identifying the potential configurations of conditions that are sufficient and/or necessary for the local networks to be considered part of the set of effective networks.

3.11.4 Theory Evaluation in QCA

QCA also offers additional procedures that provide ways of going beyond the analysis of necessity and sufficiency. For example, the theory evaluation procedure developed for QCA analysis offers a way of testing the overlap between the original theory and the solution produced by the analysis of sufficiency. The aim is to identify the parts of the theory that are supported by empirical evidence and those that are not. It can support the development of the original theory by either restricting or expanding different parts of it.

Schneider and Wagemann (2012) stress that it is important to understand the difference between theory testing in standard quantitative social science research and in qualitative research such as QCA. They argue that QCA is essentially “inductive in spirit” (p.295) in that the researcher aims to find a plausible explanation for the solution terms produced by the analysis. The solution terms produced are part of a process of explanation rather than an end in themselves. It is good practice in a QCA study to “move back and forth between ideas and evidence” (Ragin, 2000 quoted in Schneider and Wagemann 2012 p.296). Therefore, if the original model is not supported by empirical data, researchers can use the Theory Evaluation technique to test different theoretical hunches.

3.11.5 Set-theoretic Multi-Method Research (SMMR)

Having completed the QCA analysis, the researcher aims to interpret the solutions and draw conclusions that provide a modest level of generalisability. In QCA studies, the identification of an underlying mechanism supports the process of achieving external validity or generalisability, which has been defined as “The same causal mechanism produces the same outcome based on valid within-case causal analysis in all or a high percentage of cases within some scope conditions” (Schneider and Wagemann, 2012a)(Goertz and Haggard, 2020, p.6).

Set-theoretic multimethod research (SMMR) is an additional procedure that has been developed to help researchers increase the interpretability of their QCA ‘solutions’. It has been defined as “*the formalized framework within which the analysis of a truth table via QCA*” (cross-case level) is combined with within-case analysis (Oana, Schneider and Thomann 2021 p. 181). The aim of the within-case analysis is to explain the “how” and “why” of the outcome by following the step-by-step processes that lead to certain outcomes, focusing specifically on the sequence of events or

actions in a case. Process tracing is frequently used; however, any form of within-case analysis can be used to identify the potential mechanism (Schneider, 2023).

The first step is to define or categorise the cases based on their membership of various sets in order to select the best representative cases from these categories. Table 3.10 below shows the types of cases, the rules used to categorise them, and their use in SMMR.

TABLE 3.10 TYPES OF CASES IN SMMR

Categorisation rules	Relevance for further analysis	Type of case
$T > 0.5$ and $Y \geq T$	Identification of causal mechanism	Typical (TYP)
$T > 0.5$ and $Y < T$	Not recommended	Deviant consistency in degree
$T > 0.5$ and $Y < 0.5$	Identify missing conjunct (part in the conjunction)	Deviant consistency in kind (DCK)
$S < 0.5$ and $Y > 0.5$	Identify missing conjunction	Deviant Coverage
$S < 0.5$ and $Y < 0.5$	Not useful for within case analysis	Individually irrelevant IIR

Source: Schneider and Rohlfing (2019) T = sufficient term; S = solution; Y = outcome

In this study, with the aim of increasing the understanding of the causal mechanism linking the conditions to the outcome, two types of further analysis will be useful: comparison of a typical case with an individually irrelevant case and comparison of two typical cases. By first carrying out further analysis with a typical case (case that has membership of the solution term and where membership of the outcome is greater than or equal to membership in the solution term) and an individually irrelevant case (case that does not have membership of the solution term or the outcome) it will be possible to find out if the sufficient condition produces the outcome and also triggers the mechanism that causes the outcome. By carrying out further analysis on two typical cases, it is possible to determine whether the mechanism can be generalised to other cases that have the sufficient terms.

3.11.6 Interpretation of QCA solutions

Depending on whether the complex, the intermediate, or parsimonious solutions are to be interpreted, different combinations of factors are found to be sufficient for the outcome. The choice of which solution to use between the parsimonious, conservative, and intermediate solutions in Qualitative Comparative Analysis (QCA) is not straightforward, as each solution type has its own strengths and limitations.

Up until recently, there was an accepted norm that the intermediate solution “should be at the centre of substantive discussion” (Schneider and Wagemann, 2012 p.278). However, a series of published articles have recently presented conflicting arguments in favour of the interpretation of different solution types. The debate surrounding QCA’s main solution types revolves around the different perspectives on how to draw correct causal inferences from QCA results, with some scholars prioritising substantive interpretation and others seeking redundancy-free models (Thomann and Maggetti, 2020). Proponents of the substantive interpretability (SI) approach argue that the intermediate solution provides valuable insights into the modelled process or system (Haesebrouck, 2021). Dusa (2019) supports this view, arguing that, through its inclusion of directional expectations, the intermediate solution is positioned closest to the true underlying causal model. Consequently, he argued that the intermediate solution is the most suitable solution for causal analysis (Duşa, 2019), in that it uses a mixture of empirical evidence and counterfactual assumptions.

Baumgartner (2015 p.839) argued that only the parsimonious solution should be used to interpret causality and went further to declare, based on a series of evaluations of QCA, that the method is “incorrect when generating the conservative and intermediate solution type” (Baumgartner and Thiem, 2020). They argue that the intermediate solution may contain unnecessary or extraneous conditions, which could lead to false positives in causal interpretation.

While the parsimonious solution can be considered effective in identifying causally relevant conditions, it has also been criticised for building on implausible assumptions about logical remainders and being potentially overly inclusive (Glaesser, 2022). The complex or conservative solution, on the other hand, runs the risk of being overly cautious and excluding configurations that could lead to the outcome.

Striking the middle ground, Haesebrouck and Thomann (2022) argue that both sides of the debate share an understanding of causality consistent with a regularity theory, but the disagreement lies in the specific procedures used for Boolean minimization. Both Haesebrouck (2021) and Schneider (2012) argued that researchers should not focus solely on one solution type when interpreting the results of QCA, as each solution type provides different insights into the causal structure behind the phenomenon under investigation. Ultimately, researchers should aim to interpret QCA results in an integrated manner, considering the strengths and limitations of each solution type, to gain a comprehensive understanding of the causal relationships.

As the intention of this study is to go beyond the identification of conditions necessary or sufficient for shared identity and look for a causal mechanism, it is useful to consider the arguments put forward by Álamos-Concha *et al.* (2022). When seeking to infer whether a certain causal mechanism works as theorised in a particular case or group of cases, they argue that, at the outset, it is important to distinguish between conditions that “produce something” and those that are more contextual and are expected to “affect the functioning of the mechanism” (Beach & Pedersen, 2019 p.254) The researcher should ensure that the QCA solution type, to be subjected to further analysis, does indeed include these causes and contextual conditions in the solution and has not been minimised away in the interests of parsimony (Álamos-Concha *et al.*, 2022). In this study, the analysis of contextual conditions will be carried out first, using Schneider’s two-step QCA (Schneider, 2019) and the remaining conditions are those that are likely to ‘produce’ something.

4 Data Presentation and Initial Analysis

4.1 Introduction

The preceding chapter presented the methodology to be used to undertake the research and answer the critical research questions. This chapter describes the data collected and aims to gain an understanding of what the data tells us about the role of collaborative behaviours in the development of a shared identity. It will commence with an introduction to the two programmes – Age Friendly (AF) and Housing for People with a Disability (HD) looking at the survey descriptive statistics, which offer an overview of differences between the two programmes. Calibrated measures should be based on substantive and theoretical knowledge, providing a solid measurement foundation (Ragin, 2008). Theoretical knowledge has informed the choice of conditions to be explored, and to expand this knowledge, this chapter will present a brief overview of the themes explored in the semi-structured interviews to ensure that the calibration process is grounded in both literature and the practical understanding of network members. Finally, it will explore the perception of 'shared identity' articulated by network members in the interviews.

4.2 Case Data Overview

For each of the programmes studied (Age Friendly Ireland and Housing for People with a disability), 30 local authorities were involved – offering a potential 60 networks (cases) to analyse. Surveys were completed by individuals participating in 48 of them. However, including more than one respondent per network was important to ensure that one participant's perspective did not overly skew the analysis at the 'network' level. Therefore, the 14 networks that returned only one survey response were excluded from the analysis. Each of the networks (cases) was given a code to maintain the anonymity of participants. Cases were also categorised based on the programme they belonged to and by the relative size of the local authority (as described in section 3.10.2). Table 4.1 below shows the categorisation by programme (AF/HD = 1 /0), the uncalibrated measure of size, the number of interviews and survey responses for each of the 34 potential

cases, and the local authorities included (√) or excluded (X) from the analysis (See Table 4.1 below).

TABLE 4.1 DATA OVERVIEW

Case	Prog	SIZE*	Interviews	Surveys	Included
1AF	1	2	2	2	√
1HD	0	2	2	4	X
2AF	1	3.5	1	2	√
2HD	0	3.5	2	3	√
3HD	0	3.5	6	11	√
4AF	1	2	2	6	√
4HD	0	2	2	6	√
5HD	0	4	4	9	√
6AF	1	2.5	3	3	√
7AF	1	2.5	3	6	√
8AF	1	2.5	2	6	√
8HD	0	2.5	2	2	√
11AF	1	1.5	2	4	√
11HD	0	1.5	2	2	√
12AF	1	1.5	2	3	√
13AF	1	1	2	4	√
14AF	1	2	2	2	√
17HD	0	4	2	7	√
18AF	1	3	2	2	√
18HD	0	3	2	3	√

19AF	1	2.5	3	10	√
19HD	0	2.5	3	5	√
13HD	0	1.5	0	3	X
21HD	0	3	0	4	X
22HD	0	2.5	0	2	X
23HD	0	3	0	4	X
24HD	0	1	0	3	X
26AF	1	1	0	2	X
29HD	0	2	0	3	X
3AF	1	3.5	0	2	X
5AF	1	4	0	3	X
20HD	0	1	0	4	X
16HD	0	3	0	2	X
6HD	0	2	0	2	X
9HD	0	3.5	1	2	X

LA with only one survey = 14

LA with Zero survey = 12

* Uncalibrated values

Totals		62	138
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4.3 Data Description

4.3.1 Quantitative Data

A total of 150 (complete or almost complete) survey responses were received —88 from the HD programme and 62 from the AF programme. Of those, 14 were excluded because the local authority returned only one survey, and two further surveys were excluded because the

subjective effectiveness question had missing values. The final sample of 136 fully complete surveys was analysed using RStudio and the QCA package.

Of the total sample of 150 surveys, 76 respondents gave the name of their organisational affiliation in the HD programme; 33 represented the public sector, 32 represented disability organisations or other non-profit service providers, and 11 represented what are known as Approved Housing Bodies (AHBs). Of the AF programme respondents, 19 represented the Older Person's Council (OPC) or other older person's organisation, 21 came from the public sector, and 11 were from non-profit organisations. The remainder did not answer this question.

Those who completed the survey were asked if they wished to give contact details for a follow-up interview, and all who did so were contacted with follow-ups. However, two had left the network, and the remainder were not prepared to do so or were not available for interviews. A total of 62 people provided an interview, and each was recorded and transcribed in full. Each transcript was analysed with NVivo and coded according to the themes outlined above (see section 3.8.2).

As a comparative study, it is useful to gain an understanding of the similarities and differences between the two programmes – Age Friendly (AF) and Housing for Disabled People (HD), through a brief overview of the relevant survey responses. Respondents in both programmes were mainly female. In the Age Friendly networks, respondents were older; the largest age-group represented was the 60+ group, which is unsurprising given the nature of the goals of the network and is indicative of the appropriate representation of the relevant stakeholder group.

FIGURE 4.1 RESPONDENTS' GENDER

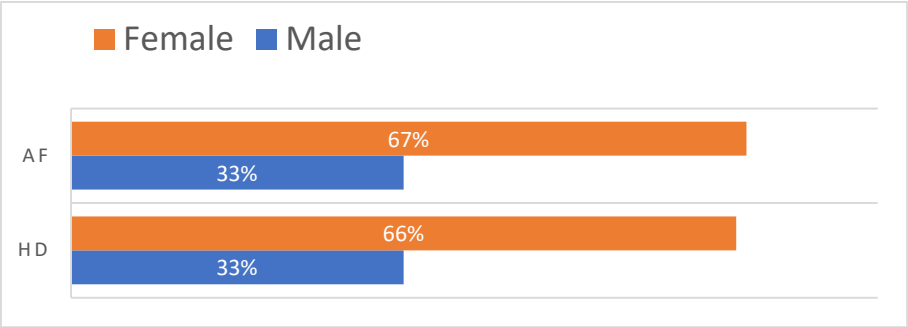
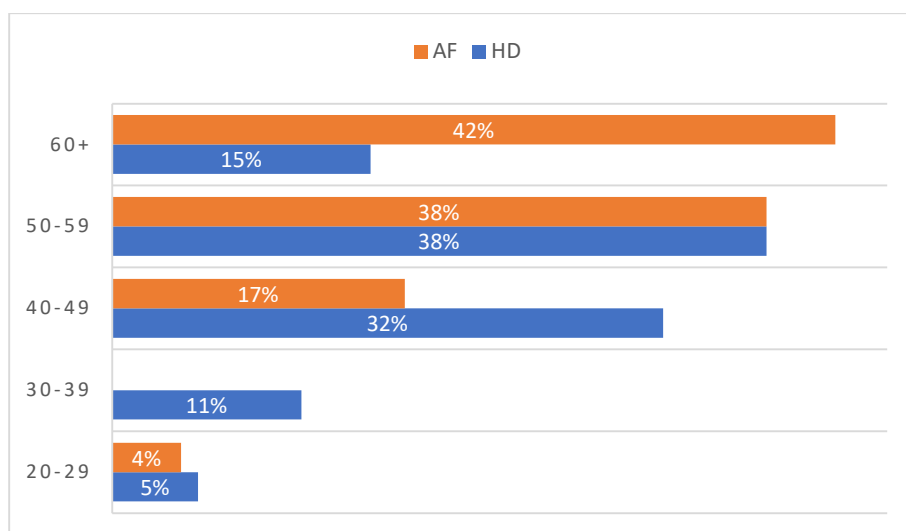
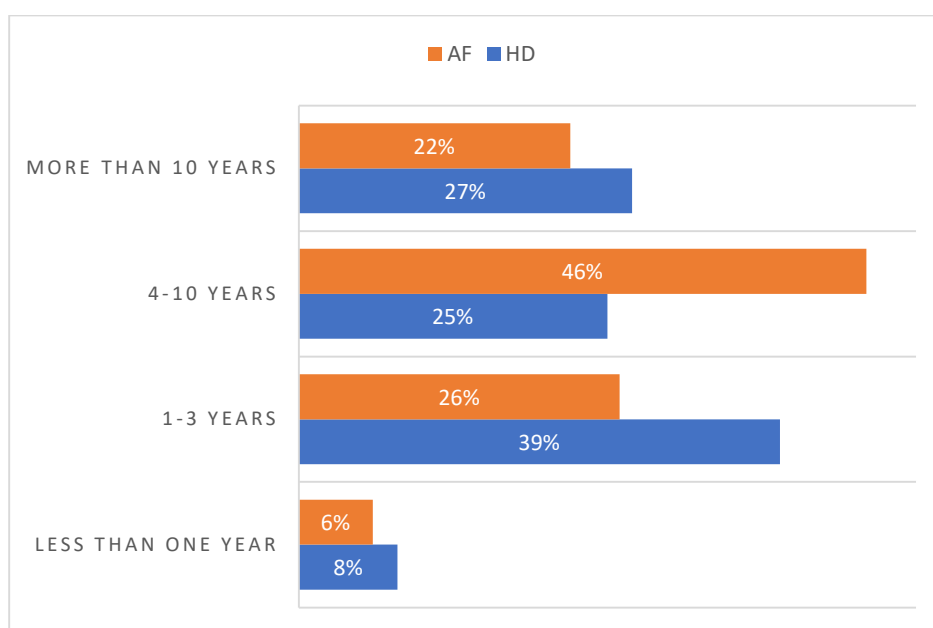


FIGURE 4.2 AGE GROUP OF RESPONDENTS



Respondents from the Age Friendly programme were more experienced in their role than those on the HD network. More than two-thirds (68%) of AF respondents had been in their role for four years or more, while just over half of HD respondents (52%) had a similar level of experience.

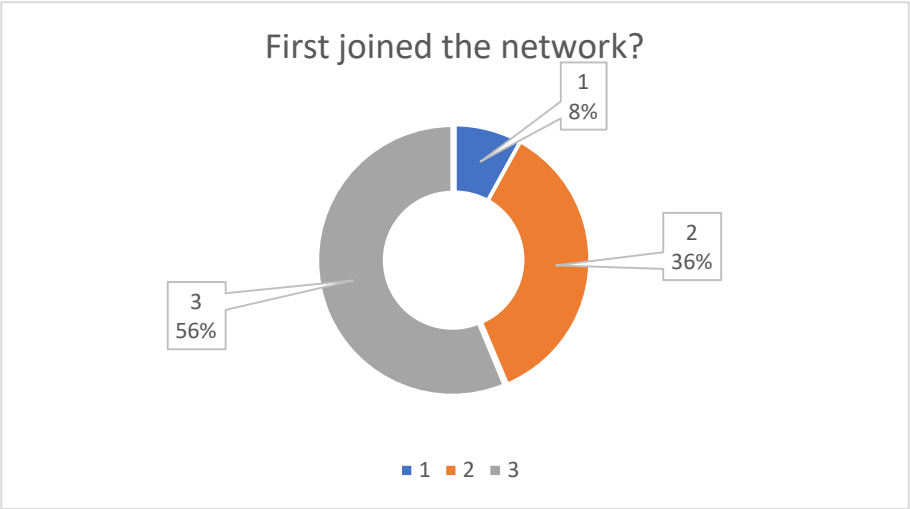
FIGURE 4.3 *TIME IN ROLE*



Across both programmes, the majority joined since 2018, and only a small number (8%) have been in the networks since they were first established (5% in the AF programme and 3% in HD). Just over a third of all respondents (36%) joined between 2014 and 2018. In the AF programme, only 25% joined the network during or after 2019, compared to 57% of HD members. This is

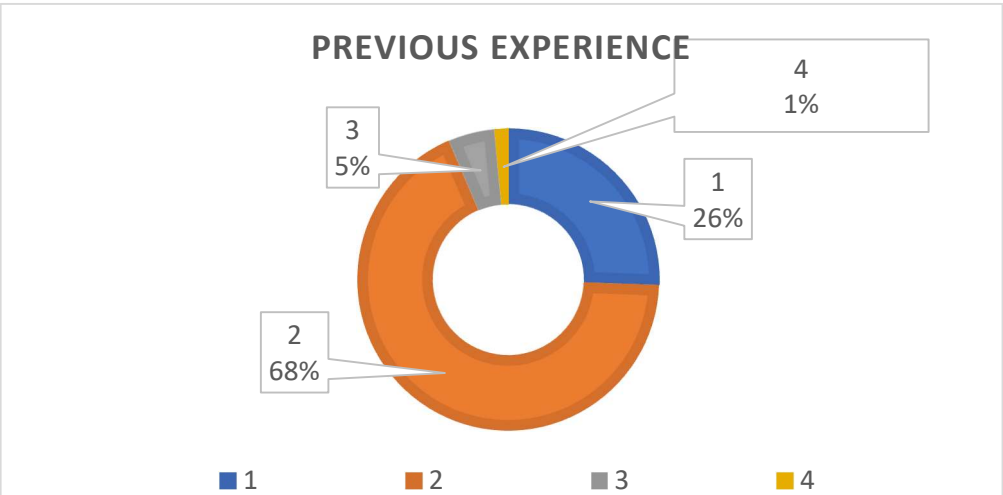
significant because, depending on when in 2019 they joined the network, they may not have had any face-to-face meetings with their fellow network members prior to the introduction of the COVID-19 lockdowns.

FIGURE 4.4 EXPERIENCE – YEAR FIRST JOINED THE NETWORK



Similar numbers had previous experience working in networks—70% in AF and 63% in HD—and of those, almost all had either excellent or good experience in previous networks. The majority of respondents had previous experience, and only a small minority (6%) found it challenging (or very challenging).

FIGURE 4.5 VIEWS ON PREVIOUS EXPERIENCE

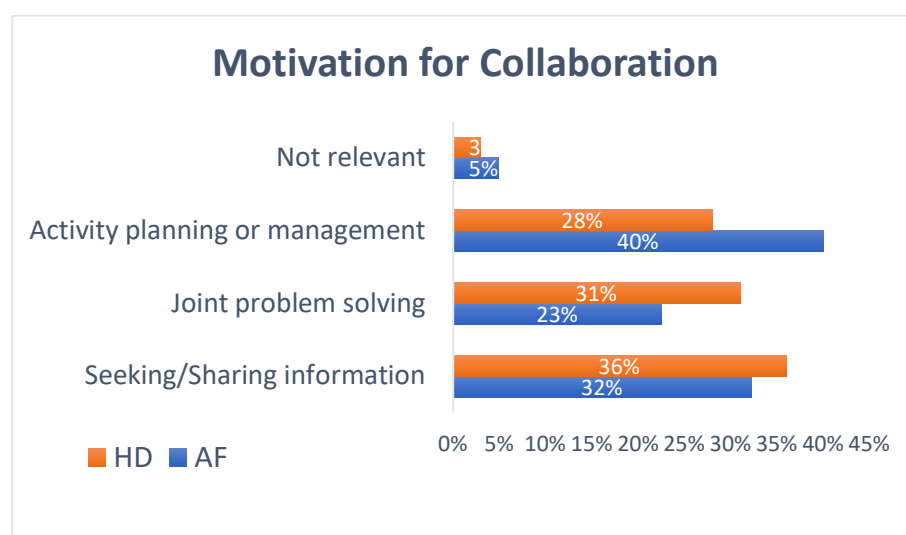


Across both programmes, group members perceived the network's goals as more important for their organisation than for themselves. Over 89% of the respondents reported that the goals were

very important for their organisations, and 68% said they were very important for them personally. This differed with the level of seniority of the respondent; 83% of those who were only one year in their current role reported that it was 'very important' for them personally, compared to 55% of those with 4-10 years of experience. Only a small number (5%) of the total sample reported that the network's goals were not very important to them personally.

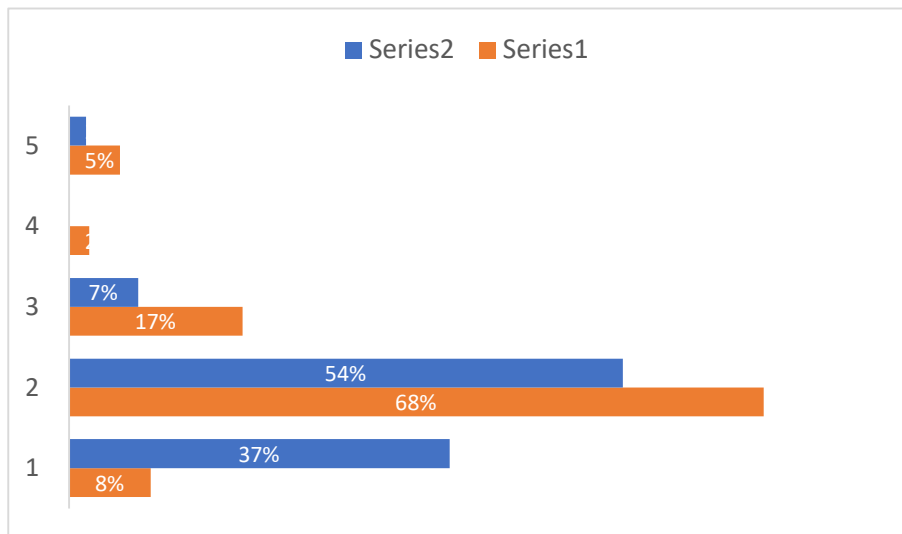
Understanding why people choose to work together is a potentially important contextual factor. Both programmes were similar in terms of their attitude toward information sharing/seeking, but because the AF networks have been in operation for longer than the HD networks and many of the AF networks have already completed one strategy and are working on their second activity, planning or management was the primary motivator for respondents in the AF programme. In contrast, for HD respondents, joint problem solving was a strong motivator, suggesting that the programme is still in development.

FIGURE 4.6 MOTIVATION FOR COLLABORATION



More than one-third (37%) of AF respondents feel that the group is highly effective, compared to only 8% of HD respondents. Almost one in five (19%) of the HD members reported that the group was either not very effective or not at all effective, compared to 7% of AF members.

FIGURE 4.7 OPINIONS ON EFFECTIVENESS



To summarise, the case data from the two programmes suggests that, while there are many similarities within and across the programmes, there are also interesting differences that provide a rich source of information to be used in the subsequent QCA/SMMR analyses. In particular, there appears to be a significant difference in the perceptions of effectiveness between the two programmes, the drivers for which may be analysed more rigorously through QCA/SMMR.

4.3.2 Qualitative Data on the AF and HD Programmes

In-depth interviews were conducted with key national agency staff members to better understand the contextual similarities and differences between the two programmes. The two interviewees from the AF programme identified vital factors that they believe contribute to the overall success and effectiveness of the age-friendly programme in improving the well-being of older people and promoting age-friendly initiatives. The following is a synopsis of the points made by the interviewees in seeking to explain the programme's success.

Collaboration: The programme emphasises collaboration and partnership with various stakeholders, including NGOs, chief executives, regional managers, and technical advisors. The interviewees believe that collaboration has been instrumental in the programme's success.

Stakeholder engagement: The programme puts citizens and the authentic voice of older people at the forefront. The Older People's Councils (OPCs) participate in consultations, workshops, and national conventions. They provide their views and feedback on policy developments, which helps

build relationships between stakeholders. The interviewees believe that the collaboration and "energy" around the programme can be attributed to the emphasis on putting citizens, particularly older people, at the forefront: *"We put the voice of older people front and centre... They roll up their sleeves and say, Listen to this. What can we do... There's a huge energy for what we're trying to do."*

This is an area that the HD programme has committed to changing in implementing the new national strategy. In contrast to the Age Friendly programme, at the time of the network interviews, many groups did not have a representative from a disabled person's organisation (DPO). The interviewee acknowledged this concern: *"We need the implementation plan, but we also need the right people around the table, including 'lived experience' [a term used to describe disabled people]. And we need to work to ensure that 'lived experience' is helped to actually give the most to the group and not be...if somebody has lived experience, they're only going to talk about their own issues"*. She acknowledged that much capacity-building has recently been done to ensure disabled people could represent their sector.

Leadership: They suggest that strong leadership from local authorities, and in particular, the commitment and leadership of several Chief Executives, has played a crucial role in the programme's success.

Structured Approach: The interviewees argue that the programme has a well-defined structure that allows sectors like NGOs, OPCs, alliances at a local level, and academia to engage. They believe the 'bottom-up, top-down approach', supported by an evidence base, has increased confidence in the programme.

Resources and Staffing: The programme has recently seen significant resource and staffing growth. This has allowed the national office to allocate dedicated staff to roles such as regional programme managers, housing advisors, research officers, and health and well-being roles.

Training and Technical Guidance: The national office provides training to staff, businesses, and older people to ensure consistency in programme implementation. Technical guidance is also offered to manage each programme effectively. The interviewees stressed that the national 'shared service office' (i.e., the national support structure for the programme) had made significant efforts to increase consistency throughout the country.

Policy Influence: The AF programme aims to influence policy related to age-friendly initiatives. The interviewees provided examples of where it has successfully influenced policies in areas such as housing options and the programme for government. In contrast, the HD programme has been established with a clear central task – to implement the national strategy.

Team-based framework: The programme managers participate in a residential every year, where they spend time together, discuss their work, and develop the annual work plan. They present to each other during national network meetings, keeping each other updated on their initiatives. This helps develop relationships and knowledge sharing among the programme managers, and partnerships are established to facilitate further networking opportunities. In contrast to these relationship-building annual meetings, the Housing Agency representative acknowledged that a similar forum had not been successful. *"We did try to get them to do kind of, you know, maybe facilitated or away-days, but I know that that never happened. It is the one thing that we will try to do this time around."*

Sharing successful initiatives: In some cases, initiatives are rolled out on a two- or three-county basis, where programme managers collaborate to deliver projects. This sharing of experience and joint efforts helps build relationships. In conclusion, the interviewees stress the role of committed individuals, the efficient use of existing resources, and the inclusion of the authentic voice of older people as critical factors in the success of the Age Friendly Programme.

The national strategy that established the housing working groups was published more than ten years ago. However, based on the interview with the Housing Agency representative, there is a sense that the groups still need to achieve their full potential. The importance of consistency was highlighted, and the interviewee acknowledged the lack of consistency across the local authorities. She discussed the efforts of the Housing Agency to address this issue. She mentioned quarterly meetings with coordinators and regional meetings between local authorities and the HSE as initiatives aimed at improving consistency. These meetings aim to ensure that the groups are aware of their roles and responsibilities and provide guidance and support for achieving a consistent approach to implementing the national strategy. The housing agency also plans to suggest agenda items for the groups to discuss, focusing on strategies that have been effective in certain areas and encouraging the adoption of similar practices in other areas. Additionally, the housing agency is considering the idea of regional meetings to bring local authorities together, which would help promote consistency and the sharing of information.

There is also some evidence that some members of the groups lack clarity about their role in the group... *"If we bring them together and they actually come back away with knowing what their role is, we would be happy" ... "if they actually were aware of their role and what they can bring to the table because that is what I know definitely, not so much on the local authority side, but I know on the disability sector side that's what they struggle with"*. The agency aims to ensure that the groups fully understand their role in contributing their expertise and accountability to decision-making processes. She also mentions that thematic groups will be formed to address specific areas of expertise or lived experience, facilitating a more focused and hands-on approach to problem-solving.

Overall, while acknowledging the existing gaps and challenges, the housing agency is actively promoting consistency and collaboration among the local groups involved in housing initiatives. In general, the interviewee felt that much progress had been made over the ten years since their establishment. Initially, they had struggled to share information because of concerns about GDPR, but many had eventually come up with a solution to the problem... *"that's, I think, the biggest achievement is...and it's work like the disabled disability action teams, where there's subgroups and allocations, where that's what's actually starting to happen... they're working together and sharing information, but they're being very careful with regards to GDPR...So I think there has been changes. They're still not the perfect; they're not probably what they were set out to be, but they certainly are moving. And has it taken a ridiculously long time? Yes, absolutely"*.

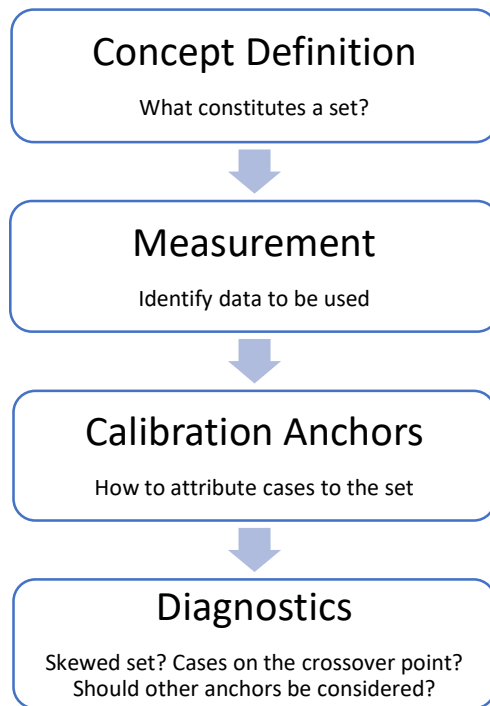
4.4 Calibration process in QCA

In QCA, *calibration* has been defined as “the procedure of categorising cases to sets by assigning partial membership, based on relevant variation in the raw data” (Hofstad, 2019 p.2). To reliably calibrate data, researchers are advised to ensure that 1) "plausible and consistent" rules are applied to all cases, 2) content validity is assured between the underlying social science concept and the target set, and 3) the calibration process uses criteria or measures that are external to the dataset where possible (Ragin, 2008 p.82). Examples such as standardised inequality rates or levels of poverty have been used in previous QCA studies (Greener, 2021). Schneider and Wagemann (2012b) make a distinction between measuring a concept and assigning membership to a set using the set-theoretic view. From a set-theoretic perspective, set membership is defined

by whether a case can be described by a concept or not. The calibration process generally follows a number of steps (see Figure 4.8 below).

The calibration process in Qualitative Comparative Analysis (QCA) involves transforming data into crisp or fuzzy sets by establishing consistent rules that assign values to cases based on the presence or absence of specific attributes. This transformation is at the core of QCA, which allows researchers to quantitatively analyse qualitative information and compare different cases based on set membership numerical scores (Mello, 2021). Calibration involves connecting the meaning of a concept to numerical indicators, and therefore it is important that alignment with underlying concepts be maintained through the calibration process. By staying true to the underlying social science concepts that the sets are meant to reflect, researchers can increase the validity and reliability of the calibration process. These criteria should be explicitly stated, systematically applied, and transparently used (Schneider and Wagemann, 2012c).

FIGURE 4.8 STEPS IN THE CALIBRATION PROCESS



The process of calibration in Qualitative Comparative Analysis (QCA) involves the transformation of data into crisp or fuzzy sets by establishing consistent rules that assign values to cases based on the presence or absence of certain attributes. This transformation is crucial in QCA because it allows researchers to quantitatively analyse qualitative information and compare different cases based on set membership scores (Mello, 2021). Calibration involves connecting the meaning of a concept to numerical indicators, and therefore it is important that alignment with underlying concepts be maintained through the calibration process. By staying true to the underlying social science concepts that the sets are meant to reflect, researchers can increase the validity and reliability of the calibration process. These criteria should be explicitly stated, systematically applied, and transparently used (Schneider and Wagemann, 2012).

4.4.1 Concept Definition

As outlined above, the aim of the calibration process is to transform qualitative judgements offered by respondents into numerical indicators in an explicit, systematic, and transparent way. The concepts used in the research model are strongly grounded in literature (described in Chapter

2) and details of the operationalisation of each condition have been outlined above (Section 3.9). However, these concepts are not linked to external, objective facts. There is no substantive and clearly understood external measure of 'shared goals' or 'mutual support' that can be applied to the uncalibrated data. Therefore, to work towards the aim of transparently linking the measure to an underlying concept, this section will briefly explore the tentative definition and qualitative understanding of interviewees on each of the conditions to be included in the study. The quotes used are intended to give a deeper understanding of how each of the concepts has been interpreted by the network members.

Shared Goals

Goal agreement is not a tangible fact; it is a judgement that network participants are required to make. Therefore, when asked about the goal agreement of others in the network, interviewees look to proxies or indicators to make a judgement. For example, many members used regular attendance at meetings or their contribution to collaborative activities as evidence of shared goals: "The attendances have been decent, and I think everybody does give input when they're at the meetings as well. So, um, you know, I think everybody is trying to strive to a common goal." 3HD_12380 And "Yeah, I think people are supportive of the goals ...there seems to be a will there, for sure, because people do attend." 18HD_111026

Shared Information

Sharing information is a behaviour that can be observed and remarked on, and interviewees were mostly positive about information sharing in their networks. In the AF programme, the standard format for most meetings is to go around the 'table' (or to each participant in a zoom call) and ensure that every member speaks. The benefit of information sharing was observed by one programme manager discussing the impact on a new member: "she was delighted with the information that was shared across the partners, and...she was saying what she's going to bring to the meetings the next time in terms of updates of different stats from [her organisation]. You know so again; they didn't know each other before this." 18AF_153046

Shared Norms

Norms are (similarly intangible) accepted ways of working that tend to develop in groups as people work together. They can apply to group processes or ways of interacting with each other and can act as a guide to group members in the appropriate way of behaving in a particular group.

Interviewees were asked if they were aware of particular ways of working or if they had received any induction into the group's processes. Responses suggested that many were not clear about whether norms existed within the group. One interviewee interpreted the question as referring to the most common way of behaving: "I have to say the alliance are a very positive group and because there's never any negativity... It'd be quite a friendly kind of committee so I think the norm is kind of they'd be very friendly towards each other." 19AF_103217. Another person interpreted the question as referring to rules: "Well, there are rules, but to be honest with you, we've never looked at them. And I'm long enough around to know that when you have to start looking at rules, you're in trouble, right? We operate on a goodwill basis." 2AF_105528

Trust and mutual support

The perception that a group member could rely on, or felt that they would be supported by, others in the group is used as an indicator of trust and positive relationships. Many interviewees were very clear in their response to this question During the COVID-19 period, many of the AF Alliances had a special role in providing extra services to older people who were unable to leave their homes. Consequently, their relationships with others on the alliance developed. "...certainly during COVID, when quite a number of the alliance members had to work together, trust really came into it, because it was very serious, and in the meetings if a particular agency was saying, Look, we can bring this to the table or we can do this particular action, nobody doubted that yes, that they were going to go away and do that. And sure enough, at the next meeting, they'd come back and say, we did that and this is what the outcome was." 6AF_153707

Interactions at meetings

This concept is intended to capture the overall contribution that individuals make to group meetings. Interviewees were asked to describe the meetings and the level of interaction between people. Many interviewees spoke about regularity of meetings or expressed concern about attendance: "there is an issue sometimes of people...they don't attend and don't tend to substitute or there's no report sent to me...in fairness, when the people are there, they're all interested, they're all engaged and they're asking questions so I would say there is good engagement." 11AF_153417

Shared Identity

Shared identity is another intangible concept that can be interpreted in many ways, both in academic literature and in interviews with network members. Ambiguity among interviewees echoed findings from literature about the many different meanings that identity can have, either for an individual or a group member. A few appeared unsure about the meaning of the question, “Em...I think they’re well established; is that what you mean?” Or others referred only to a shared identity as one that was externally perceived and recognised externally: “I wouldn't say that the [9AF] one is recognisable at this present time, because of the lapses” 9AF_133004 and, “Yes, I do...yeah, I do [shared identity] I think the Age friendly Alliance in [4AF] is...I am trying to think of the word...it’s very much part of em...people's awareness of how older people are supported in the country, and it's recognised as an important organization to do that” 4AF_093621

Others linked it to performance measures such as effectiveness or collaboration. Respondents talked about the group ‘working well’ or achieving goals: “the collaboration has been brilliant in [local authority area] and I think that is what has got us across the line” 12AF_143541 or “Yeah absolutely, I think so, I think we have we have come together like a good, strong group”. 7AF_103022 And, “I hope so...certainly we are all on the pitch together in that each member...is in some way invested, directly or indirectly.” 18AF_153046

Of those who did not feel the group had developed a shared identity, the lack of continuity or momentum in the group was frequently cited as the reason for the absence of a shared identity. This lack of continuity was attributable either to constant changes in personnel or cancelled/postponed meetings. “I don't think so because this is just the changes in personnel in the group. You know, the membership of the group changes so much. And yeah, you know, you kind of lose continuity then.”. 19HD_115831

“I would say none at all. No, because, like, it's changing chopping changing...no meetings...the council don't seem that bothered; sometimes the meetings could last 20 minutes.” 5HD_143243

In concluding this brief review of the interviews, it is apparent that interviewee responses do not always fit the conditions or sets outlined in the research model. Attendance at meetings or regularity of meetings is used as an indicator of concepts such as shared goals, while effectiveness and collaboration are seen as synonymous with shared identity by some. The existence of norms was not supported or recognised by many interviewees, and mutual support, trust, and positive

relationships were all discussed as similar concepts. Due to the variability in interviewees' interpretations of the concepts, it was decided that the data from the qualitative interviews could not be systematically and transparently used to translate concepts into numerical measures. Instead, the calibration process would use only data from the survey.

4.4.2 Measurement to calibration.

As discussed in Chapter 3, survey respondents were asked about how often a particular statement was true for their network. Three statements were asked for each of the six conditions (GOAL, NORM, SUPP, INFO, MEET and IDEN) and one question asked their opinion of the effectiveness of the group (SUBEFF). The objective effectiveness measure for the HD programme was developed using an average of the housing allocation to disabled people from the total of all social housing allocations. For the AF programme, the measure used was based on process measures derived from annual returns data collected by the national administrative office.

To calibrate the data, the ordinal scale data must be transformed into degrees of membership in a condition-set between 0 and 1. The set membership value (SMV) or calibrated value, is intended to represent the case's level of membership in a specific set. "In essence, a fuzzy membership score attaches a truth value, not a probability, to a statement" (Ragin, 2007 p.13). To create 'decision rules' for qualitative conditions, the preference is to use external standards and to avoid using measures of central tendency (such as mean or median) because they are values that are determined by a case's value in relation to other cases rather than indicators of set membership (Schneider and Wagemann, 2012c). However, as discussed above, the conditions in this study do not have any widely accepted external standards to rely on. Therefore, this requirement for an 'external standard' will be fulfilled by consideration of the number of positive or negative responses to statements in the survey. The raw value of each of the conditions ranged from 0-9 (as outlined in section 3.8.8) but because respondents rarely chose the most negative response, the raw values tended to be skewed towards the upper end of this scale. To reflect this tendency, evenly spaced calibration anchors were not used. Instead, membership in the condition sets was defined on the basis of high values (Pappas and Woodside, 2021). For example, the condition 'mutual support' can be coded as "high level of mutual support" and the shared norms measure as 'strong shared norms'.

To be a member of the GOAL set, a case should have high goal agreement and clarity. From a data perspective, if a raw value of 9 is the highest possible level of raw value, a raw value of 7 could be considered a high level of goal agreement. Cases that score higher than 7 should therefore be considered fully in the set with high goal agreement, and the crossover point of 7.02 was therefore be used. Based on the definition of high goal agreement as meaning strong agreement with at least two statements, this represents a raw score of 6 (out of 9). Cases that are scored 6 or lower will therefore be considered fully out of the set of cases with high goal agreement, and a raw value higher than 8 is the upper calibration anchor. Other condition sets were calibrated using the same principles. Having decided the calibration anchors, RStudio software was used to carry out the calibration using what is known as the direct method, which uses a logistic function to fit the raw data in between the three anchors (Oana, Schneider and Thomann, 2021). Table 4.5 shows the calibrated measures used in the analysis.

Having set the calibration anchors, the next step is to review the data to ensure that none of the sets are skewed or have a set membership score of 0.5. Having a set membership score of 0.5 is known as the point of maximum ambiguity (Oana, Schneider and Thomann, 2021) and it has been avoided by using a crossover point that could not be in the raw data (such as 7.01). Therefore, none of the sets contain values of 0.5.

Thomann (2019) has advised that it can sometimes be necessary to ‘make compromises’ to avoid skewed sets – compromises that may involve re-labelling a set. If the cross-over point was set at 7.01 a total of 18 cases out of 22 would have been in the set of cases with a shared identity. To avoid an overly skewed set for shared identity, the crossover point was increased, and the set was re-labelled as the set of cases with high levels of shared identity.

TABLE 4.2 CALIBRATION DIAGNOSTICS

Condition	Excl	Crossover	Incl	Skew Check	CASES >0.5
SUBEFF	0.99	1.99	2.55	59.09%	13/22
OBJEFF	1.01	2.04	3.01	50%	10/22
IDEN	6.01	7.41	8.22	63.64%	14/22
GOAL	6.01	7.02	8.02	63.64%	14/22

NORM	6.01	7.01	8.02	45.45%	10/22
MEET	6.01	7.21	8.02	63.64%	14/22
SUPP	6.01	7.08	7.88	68.18%	15/22
INFO	6.01	7.21	8.02	77.27%	17/22

The calibration of the subjective and objective effectiveness sets was carried out using different principles. Objective effectiveness was developed from external data and did not include any subjective survey responses, so the data was not positively biased in the same way as was found in the survey data. Therefore, from a potential raw score of 4, three evenly spaced anchors were used to calibrate the data. The subjective effectiveness measure was derived from one survey question: an assessment of 'highly effective' scored 3 and 'reasonably effective' scored 2. Therefore, all cases that had a raw score of 2 or higher were considered to be in the set of effective cases. See Table 4.3 below showing the raw and calibrated measures for the outcome measures.

TABLE 4.3 CALIBRATION OF OUTCOME MEASURES

LA CODE	Raw SUBEFF	Calib. SUBEFF	Raw OBJEFF	Calib. OBJEFF	IDEN	Calib. IDEN
1AF	2	0.51	1.5	0.17	8.5	0.98
1HD	1.75	0.33	2	0.46	8.5	0.98
2AF	1.5	0.19	3	0.95	7.5	0.58
2HD	1.25	0.10	3	0.95	7	0.29
3HD	1.64	0.26	2.75	0.90	7.36	0.47
4AF	2.2	0.75	2	0.46	8	0.89
4HD	2.33	0.86	2	0.46	7.6	0.66
5HD	1.67	0.28	2	0.46	6.17	0.07
6AF	2	0.51	2.5	0.80	7.33	0.45
7AF	2.33	0.86	2.5	0.80	7.93	0.86
8AF	2.5	0.94	3	0.95	8.5	0.98
8HD	2	0.51	2	0.46	7	0.29
11AF	2.75	0.98	1	0.05	7.58	0.65
11HD	1.5	0.19	3	0.95	7.25	0.42
12AF	2.5	0.94	3	0.95	8	0.89
13AF	2.33	0.86	1.5	0.17	8.75	0.99
14AF	1	0.05	2	0.46	7	0.29
17HD	1.67	0.28	3	0.95	8.17	0.94

18AF	2	0.51	4	1.00	7.5	0.58
18HD	2	0.51	2	0.46	7.67	0.72
19AF	2.3	0.84	2	0.46	8.16	0.93
19HD	1.4	0.15	4	1.00	7.4	0.49

4.4.3 Robustness of Calibration

To ensure that decisions taken by the researcher on the placing of the calibration anchors, have not overly influenced the research findings, it is important to carry out robustness tests to find the ‘robustness range’ or “the calibration boundary within which solution terms and cases remain the same” (Hofstad, 2019 p. 1). The basic principle behind the testing of robustness is that the initial solution (IS) is first produced, and then three alternatives, called test solutions (TS), are produced and ultimately the researcher seeks to find the intersection of the initial solution with the three test solutions. This is called the robust core.

In robustness tests for calibration anchors, using a set of functions in the R package ‘SetMethods’ (Oana and Schneider, 2018) that help calculate the sensitivity ranges for a QCA solution, the researcher alters the calibration anchors for each condition in turn, and the software returns a range within which the Initial Solution (IS) stays the same. The initial solution is described as “the QCA result that researchers consider as their best bet for substantive interpretation because it is the result of a carefully crafted and minimized truth table” (Oana and Schneider, 2021) (See Appendices for full details of the robustness tests for each condition in the research model). Changes to each calibration anchor are made in turn while keeping all other parameters (i.e. the same raw consistency threshold, the same frequency threshold and the other anchors) set at their values in the IS (e.g., keeping the rest of the calibration anchors fixed).

When first carried out, the robustness tests showed that for two of the conditions, the crossover anchor was quite sensitive to change, and even a small change in the crossover point for MEET and INFO would change the IS. To address this issue, a slightly higher crossover point was chosen, which increased the robustness range. The outcome measure (IDEN) is quite robust on each of the thresholds, and the IS will remain unchanged within a reasonably wide range of parameters. The remaining conditions, SUPP and MEET, are also robust, with a wide range of possible options for non-membership, crossover, and full membership before the IS changes.

5 Analysis – Phase 1

5.1 Introduction

One of the main aims of this study is to explore the potential for shared identity to act as a unifying concept, linking some of the key collaborative behaviours known to contribute to effectiveness. This chapter will outline the analysis carried out, using fuzzy set qualitative comparative analysis (fsQCA) as the analytical tool, to identify the necessary and/or sufficient conditions for developing a shared identity in governance networks. Further, the research sought to establish whether the development of a shared identity for the group would act as a causal mechanism, producing greater effectiveness. Therefore, the analysis will consider whether shared identity is necessary or sufficient to produce the outcome of subjective effectiveness (SUBEFF), objective effectiveness (OBJEFF) or both.

Having carried out the QCA analysis, this chapter will outline the robustness tests carried out to verify the findings of the analysis. Then, using two post-QCA tools, the Theory Evaluation tool (TEV) and the set-theoretic multi-method research tool (SMMR), it will seek to strengthen the inferences drawn from the QCA findings by first assessing the extent to which the empirical data is in line with the theoretical model put forward in Chapter 2, before concluding with the identification of the best cases to be focused on for within-case analysis using SMMR.

5.2 Parameters of Fit

The three parameters of fit (outlined above in section 3.11.1) will be assessed to determine the extent to which “...the empirical evidence is in line with a set relation” (Oana, Schneider and Thomann 2021, p.69). To recap, ‘consistency’ (Cons) shows the degree to which the conditions, either individually or in combination, have a relationship of necessity or sufficiency with the outcome (Ragin, 2006) and ‘coverage’ necessity measures the difference in size between the condition and the outcome sets, which can result either because of a large outcome set (most cases are members of the set) or a very small condition set with few members. If both the outcome set and the condition set are large, the coverage score will also be high, but this may indicate that the condition approximates a constant. In relation to tests for necessity, the final

parameter to be noted is the Relevance of Necessity (RoN), which is calculated to take account of both sources of triviality and tends to be the more conservative measure. Although there is no strict threshold this measure must meet, it is commonly accepted that a RoN close to 0.5 is problematic. Coverage necessity and Relevance of Necessity (or RoN) become irrelevant when the threshold of 0.9 has not been reached for consistency.

5.3 Contextual Analysis – two-step QCA

All analysis has been carried out using RStudio with the packages QCA (Duşa, 2019) and Set Methods (Oana and Schneider, 2018).

Schneider and Wagemann (2006) proposed that contextual conditions can be analysed separately in an enhancement of the standard QCA, known as two-step QCA. They suggest that in research carried out on conditions that can be separated into two distinct groups, remote and proximate, the data can usefully be analysed in a stepwise way. Using a two-step QCA (Schneider, 2019), an analysis of necessity was carried out on two remote conditions – features of the programme (such as comparative maturity, the existence of templates and toolkits to standardise behaviours, etc.) operationalised as membership of the programme AF or HD (PROG) and an indicator for resources (SIZE) (which is made up of population and budget of local authority area). Schneider (2019) advises that the consistency threshold should be set at a high level (0.9).

TABLE 5.1 NECESSITY FOR SHARED IDENTITY

Condition	Outcome (IDEN)			Negated Outcome (~IDEN)		
	Consistency	Coverage	RoN	Consistency	Coverage	RoN
Programme (PROG)	0.698	0.917	0.921	0.738	0.478	0.648
LA size (SIZE)	0.672	0.816	0.816	0.899	0.538	0.638
~Prog (~PROG)	0.602	0.824	0.855	0.872	0.587	0.716
~LA Size	0.620	0.926	0.943	0.693	0.510	0.715

The analysis found **no necessary conditions** meeting the thresholds for consistency (0.9), coverage (0.6) and relevance (0.5) for any of the outcomes. This finding provided some comfort that the difference in the subjective effectiveness outcome between the two programmes was

not related to factors other than those collected through the survey. A test was also carried out for a necessity relationship between the conditions and the absence of subjective effectiveness and objective effectiveness, and it was found that they did not pass the 0.9 threshold. (Schneider, 2019).

TABLE 5.2 NECESSITY FOR SUBJECTIVE AND OBJECTIVE EFFECTIVENESS

Condition	Outcome (SUBEFF)			Outcome (OBJEFF)		
	Cons.	Cov.	RoN	Cons.	Cov.	RoN
Programme (PROG)	0.769	0.802	0.829	0.633	0.805	0.831
LA size (SIZE)	0.656	0.633	0.689	0.741	0.871	0.864
~Prog (~PROG)	0.593	0.644	0.745	0.638	0.844	0.870
~LA Size	0,674	0.799	0.860	0.538	0.778	0.847

TABLE 5.3 NEGATED OUTCOMES

Condition	Negated Outcome (~SUBEFF)			Negated Outcome (~OBJEFF)		
	Cons.	Cov.	RoN	Cons.	Cov.	RoN
Programme (PROG)	0.627	0.575	0.693	0.783	0.539	0.676
LA size (SIZE)	0.808	0.685	0.721	0.717	0.457	0.600
~Prog (~PROG)	0.784	0.748	0.805	0.717	0.514	0.682
~LA Size	0,568	0.592	0.751	0.798	0.625	0.766

The two-step procedure stipulates that where contextual conditions are not found to be necessary for the outcome in the first of the two steps, they are removed, and the analysis continues with the remaining (proximate) conditions.

5.4 Analysis of Model Conditions

This section will present the findings from analysis of necessity and sufficiency of the five conditions (GOAL, NORM, SUPP, INFO, MEET) for shared identity (IDEN) and then for Subjective Effectiveness (SUBEFF) and Objective Effectiveness (OBJEFF)

Table 5.4 below sets out the values for each of the condition sets and outcome sets. Visual inspection of the data shows that fifteen cases do have the outcome of shared identity and eight do not, where a value of <0.5 indicates out of the set and >0.5 represents in the set.

TABLE 5.4 CALIBRATED DATASET

NAME	GOAL	NORM	SUPP	INFO	MEET	IDEN	SUBEFF	OBJEFF
1AF	0.99	0.05	0.82	0.91	0.74	0.98	0.51	0.17
1HD	0.46	0.69	0.92	0.91	0.54	0.98	0.20	0.46
2AF	0.46	0.91	0.82	0.49	0.99	0.58	0.05	0.95
2HD	0.12	0.05	0.18	0.68	0.54	0.30	0.01	0.95
3HD	0.56	0.21	0.16	0.24	0.15	0.47	0.11	0.90
4AF	0.96	0.80	0.97	0.99	0.79	0.90	0.77	0.46
4HD	0.95	0.93	0.97	0.78	0.36	0.67	0.88	0.46
5HD	0.25	0.29	0.43	0.13	0.40	0.07	0.13	0.46
6AF	0.95	0.86	0.99	0.98	0.83	0.46	0.51	0.80
7AF	0.95	0.27	0.99	0.91	0.75	0.87	0.88	0.80
8AF	0.87	0.86	0.98	0.96	0.97	0.98	0.95	0.95
8HD	0.17	0.69	0.02	0.01	0.02	0.30	0.51	0.46
11AF	0.89	0.99	0.97	0.76	0.74	0.65	0.99	0.05
11HD	0.95	0.69	0.00	0.49	0.74	0.42	0.05	0.95
12AF	0.95	0.98	1.00	1.00	0.48	0.90	0.95	0.95
13AF	1.00	0.09	0.97	1.00	0.98	0.99	0.88	0.17

14AF	0.17	0.05	0.82	0.91	0.09	0.30	0.00	0.46
17HD	0.30	0.99	0.43	0.18	0.05	0.94	0.13	0.95
18AF	0.79	0.98	0.97	0.49	0.92	0.58	0.51	1.00
18HD	0.70	0.42	0.90	0.40	0.29	0.72	0.51	0.46
19AF	0.97	0.93	0.97	0.86	0.84	0.94	0.86	0.46
19HD	0.42	0.20	0.26	0.07	0.74	0.49	0.03	1.00

TABLE 5.5 CASES IN THE OUTCOME SET “SHARED IDENTITY”.

Outcome	N. cases	Cases
0 (< 0.5)	7	2HD, 3HD, 5HD, 6AF, 8HD, 11HD, 14AF
1 (> 0.5)	15	1AF, 1HD, 2AF, 4AF, 4HD, 7AF, 8AF, 11AF, 12AF, 13AF, 17HD, 18AF, 18HD, 19AF, 19HD

5.4.1 Necessity for shared identity

Starting with the analysis of necessity, we find that none of the conditions are individually necessary for either the development or the absence of a shared identity (pass the 0.9 threshold in Cons).

TABLE 5.6 ANALYSIS OF NECESSITY FOR SHARED IDENTITY

Condition	Positive outcome (IDEN)			Negative outcome (~IDEN)		
	Cons	Cov	RoN	Cons	Cov	RoN
SUPP	0.862	0.832	0.705	0.666	0.291	0.362
INFO	0.878	0.827	0.680	0.741	0.316	0.350
GOAL	0.863	0.870	0.782	0.679	0.310	0.403
NORM	0.635	0.870	0.885	0.593	0.369	0.611
MEET	0.750	0.838	0.794	0.695	0.352	0.490
~SUPP	0.266	0.637	0.873	0.615	0.669	0.882

~INFO	0.273	0.699	0.900	0.595	0.689	0.897
~GOAL	0.316	0.685	0.872	0.716	0.703	0.879
~NORM	0.540	0.745	0.798	0.792	0.495	0.666
~MEET	0.420	0.753	0.866	0.681	0.553	0.782

In QCA, a disjunction refers to a logical operation where at least one of the conditions or variables must be present for a particular outcome to occur, signified by the Boolean operator + (meaning OR). Setting the coverage parameter at 0.6 and the RoN at 0.6 two disjunctions are found; either shared information or shared goals (INFO + GOAL) or shared goals or contribution to meetings (GOAL + MEET) are necessary for the outcome of shared identity.

There were no configurations using those cut-off values for the absence of shared identity, and even by reducing the coverage cut-off to 0.5 and the RoN cut to 0.5 there were still no configurations using those values for the absence of shared identity.

TABLE 5.7 *NECESSITY FOR SHARED IDENTITY*

Positive outcome (Shared Identity IDEN)			
Conditions	Consistency	Coverage	RoN
GOAL + INFO	0.928	0.732	0.607
GOAL + MEET	0.930	0.661	0.830

5.4.2 Sufficiency for shared identity

It is generally recommended that, for sufficiency, the threshold of 0.8 for consistency be surpassed. The PRI consistency scores should be high, preferably at a similar level as the consistency score. Configurations with PRI scores below 0.5 indicate significant inconsistency. Three of the five conditions (Shared goals, shared information, and contribution to meetings) individually pass the threshold of 0.8 to be considered sufficient for the outcome, with good parameters of fit for coverage and PRI. Mutual support is marginally below the 0.8 threshold and can be considered sufficient. However, none of the conditions in their presence or absence are individually sufficient for the absence of shared identity.

TABLE 5.8 CONDITIONS INDIVIDUALLY SUFFICIENT FOR SHARED IDENTITY

Condition	Cons.Suf	Cov.Suf	PRI
Shared Goals (GOAL)	0.848	0.867	0.779
Collaborative Norms (NORM)	0.788	0.703	0.690
Mutual Support (SUPP)	0.797	0.854	0.732
Shared Information (INFO)	0.852	0.832	0.789
Contrib to meetings (MEET)	0.819	0.732	0.728
Absence of Shared Goals (~GOAL)	0.664	0.317	0.369
Absence of Norms (~NORM)	0.716	0.539	0.557
Absence of Mutual Support (~SUPP)	0.551	0.262	0.205
Absence of Shared Information (~INFO)	0.702	0.275	0.332
Limited contrib to meetings (MEET)	0.740	0.461	0.564

To continue the analysis of sufficiency, a truth table was developed. The truth table is the most fundamental tool used in a QCA analysis. Its main function is to systematically list all possible combinations of conditions (referred to as configurations) and their corresponding outcomes. The software provides a way of analysing the combinations of conditions that consistently lead to the outcome and those that do not. This provides the researcher with patterns and relationships between conditions and the outcome. The remainder rows for which there is no empirical evidence (logical remainders) have not been shown.

TABLE 5.9 TRUTH TABLE FOR SHARED IDENTITY

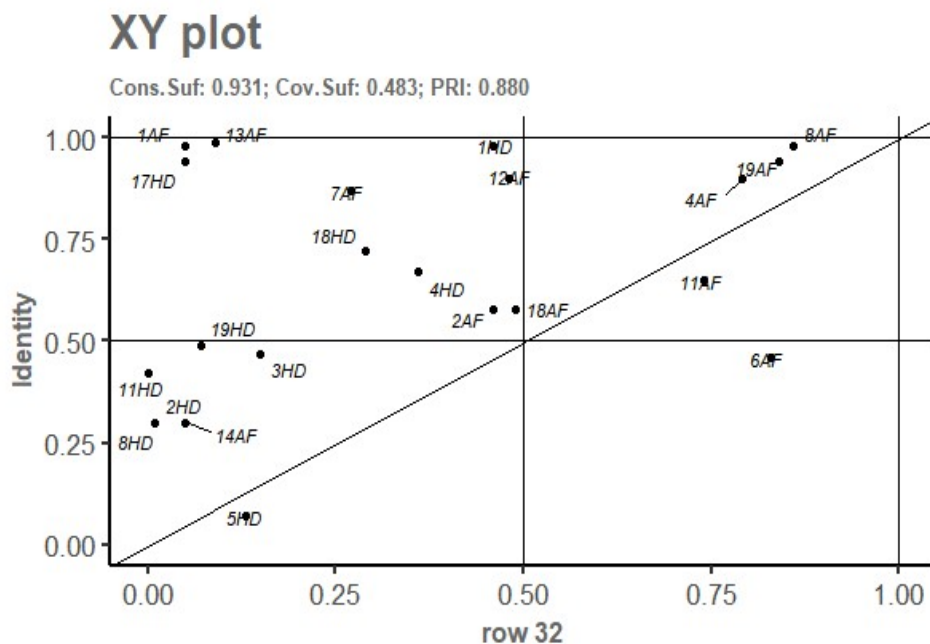
Row	Goal	Norm	Supp	Info	Meet	OUT	cases	incl	PRI
24	1	0	1	1	1	1	3	0.986	0.979
31	1	1	1	1	0	1	1	0.985	0.968
16	0	1	1	1	1	1	1	0.977	0.922

30	1	1	1	0	1	1	1	0.939	0.654
23	1	0	1	1	0	1	1	0.956	0.897
32	1	1	1	1	1	1	7	0.931	0.880
8	0	0	1	1	1	1	1	0.941	0.822
21	1	0	1	0	0	0	1	0.910	0.719
14	0	1	1	0	1	0	1	0.901	0.463
17	1	0	0	0	0	0	1	0.874	0.325
26	1	1	0	0	1	0	1	0.855	0.250
4	0	0	0	1	1	0	1	0.799	0.167
2	0	0	0	0	1	0	1	0.817	0.301
1	0	0	0	0	0	0	2	0.778	0.102
7	0	0	1	1	0	0	1	0.749	0.356

As is the norm, initially the raw consistency threshold was set at 0.75. To decide on the actual consistency level, the data was examined for a gap in the consistency level or the presence of deviant case consistency (DCC) (cases that have the conditions but not the outcome). Row 21 has one case, but it is not a DCC, so it should be included in the analysis.

FIGURE 5.1

XY PLOT FOR ROW 32



Row 32 has five cases – one of which is below 0.5 for IDEN, so it was decided to plot this row (see figure 5.1 above). The DCC case is only marginally below the 0.5 level for IDEN, so it is decided that these cases should be included in the analysis, and the consistency level is set at 0.91.

The process of logical minimization is then carried out to identify the simplest possible combination of conditions that produces the outcome. The logical minimization of the truth table identifies three solutions based on their treatment of the remainders or truth table rows that have not been found in the data. The table below shows the complex solution, offering one model with four combinations of conditions or pathways to the outcome – see below. However, it is generally advised that, in addition to the complex solution, which can be more difficult to interpret, it is also necessary to derive the parsimonious and intermediate solutions.

TABLE 5.10

MINIMISATION OF THE TRUTH TABLE FOR SHARED IDENTITY

Sol	Expressions Outcome -> IDEN	Incl	PRI	CovS	CovU	cases
CS	GOAL*NORM*SUPP*INFO	0.916	0.868	0.553	0.061	7
	GOAL*NORM*SUPP*MEET	0.895	0.822	0.499	0.006	6
	GOAL*SUPP*INFO*MEET	0.946	0.919	0.633	0.139	12
	NORM*SUPP*INFO*MEET	0.932	0.883	0.491	0.008	6
	GOAL*SUPP	0.875	0.827	0.783	0.081	12
PS	SUPP*INFO*MEET	0.896	0.860	0.603	0.043	8
	M1: GOAL*SUPP*INFO + NORM*SUPP*INFO*MEET -> IDEN	0.876	0.854	0.698	0.035	
	GOAL*SUPP	0.875	0.827	0.783	0.081	12
IS	NORM*SUPP*INFO*MEET	0.932	0.883	0.491		12
	M1; GOAL*SUPP + NORM*SUPP*INFO*MEET -> IDEN	0.876	0.829	0.791		12

Both solutions offer one model; the intermediate solution, which is based on directional expectations that each of the five conditions is present rather than absent, has two different combinations of conditions (conjunctions) –shared goals and mutual support (GOAL*SUPP) OR shared norms, mutual support, shared information, and contribution to meetings (NORM*SUPP*INFO*MEET). The consistency score for this model is good, and the model has good parameters of fit overall. The combination of shared goals and mutual support has a unique coverage of 0.300 which explains 30% of the outcome.

The parsimonious solution produces two models with two alternative pathways; mutual support and shared goals are in both models. The pathways include shared goals and mutual support, or mutual support, shared information, and contribution to meetings (SUPP*INFO*MEET) lead to a shared identity.

When the same analysis is carried out with the absence of share identity as the outcome, the solutions are relatively symmetrical, and many of the negated conditions contributed to the negated outcome. Both the parsimonious and the intermediate solutions produced one model

with two pathways, while the parsimonious produced two models with two pathways. However, the parameters of fit for some of these expressions are poor.

5.4.3 Enhanced Standard Analysis

Because the minimization of the truth table to produce the parsimonious solution can allow untenable assumptions to be used in the development of the solution, it is important to check the simplifying assumptions. There are two main ways that untenable assumptions can be made when carrying out the minimization process; including remainder rows that make statements of sufficiency on both the presence and absence of the outcome, and including those that contradict a previous claim of necessity. There is a third source of untenable assumptions relating to a claim that contradicts basic logic, e.g., a tall or short person, but this does not apply in this study.

To avoid the use of such remainder rows, we must first check the simplifying assumptions for shared identity and then for the absence of shared identity. Simplifying assumptions are the remainder rows included in the minimization process. To ensure that no contradictory simplifying assumptions have been used in the minimization, the assumptions are first identified for the presence of shared identity and then for the absence of shared identity. Two rows '27' and '28' were used for both the presence and the absence of shared identity and must be blocked from the minimisation process.

Having carried out this step, the next step is to check whether any assumptions have been made that contradict the claim of necessity identified above. In this research, two claims of necessity were made; "GOAL + INFO" and "GOAL + MEET", were necessary for a shared identity. Therefore, any rows that did not contain these conditions would contradict the claim of necessity. When any contradictory assumptions are blocked from being minimised, new solutions are developed that are no longer based on incorrect assumptions.

The changes are not substantial; the complex solution – which does not use any simplifying assumptions – obviously remains unchanged. The parsimonious solution changed and now produces one model. The intermediate solution did not change. By blocking any assumptions that should not be used in the minimization of the truth table, a further step is taken towards increasing the robustness of the findings.

TABLE 5.11 *ENHANCED SOLUTIONS PRODUCED FOLLOWING ESA*

Sol	Expressions Outcome -> IDEN	Incl	PRI	CovS	CovU	cases
PS	M1: GOAL*SUPP + SUPP*INFO*MEET -> IDEN	0.878	0.831	0.801		
	GOAL*SUPP	0.875	0.827	0.783	0.150	12
	SUPP*INFO*MEET	0.948	0.921	0.651	0.018	9
IS	M1: GOAL*SUPP + NORM*SUPP*INFO*MEET -> IDEN	0.876	0.829	0.791		
	GOAL*SUPP -> IDEN	0.875	0.827	0.783	0.300	12
	NORM*SUPP*INFO*MEET-> IDEN	0.932	0.883	0.491	0.008	8

5.4.4 Conclusion - Shared Identity

Having considered the various arguments for and against the interpretation of different solutions, in this study, both the enhanced parsimonious and the Enhanced Intermediate solutions will be examined. Both are very similar, and shared goals and mutual support are present in both. The second pathway for each solution differs in only one condition. In the Parsimonious three conditions are sufficient for the outcome, while in the Intermediate, one additional condition is included – shared norms. Using the Enhanced Parsimonious Solution, generally the recommended solution for causal inference, the data suggests that shared goals with mutual support OR mutual support, shared information, and contribution to meetings are sufficient for shared identity. Regardless of which solution is used, shared goals and mutual support are common to all. In the Intermediate solution, GOAL*SUPP has the highest unique coverage– in other words, it explains 30% of the cases. In the next section, the results of analytical tests carried out to identify the conditions that are necessary and sufficient for subjective and objective effectiveness, will be discussed and the robustness of the solutions produced will be tested to verify the reliability of the findings.

5.4.5 Necessity for Subjective effectiveness

When shared identity is included as a condition in the analysis, three of the original model conditions are individually necessary for subjective effectiveness: shared goals, mutual support, and shared information. Shared identity is also a necessary condition for subjective effectiveness

with good parameters of fit for coverage and relevance of necessity (see Table 5.12 below). None of the conditions in their presence or absence were necessary for the absence of subjective effectiveness.

TABLE 5.12 *NECESSARY CONDITIONS FOR SUBJECTIVE EFFECTIVENESS*

Condition	Cons.Nec	Cov.Nec	RoN
Shared Goals (GOAL)	0.950	0.668	0.593
Collaborative Norms (NORM)	0.804	0.648	0.532
Mutual Support (SUPP)	0.946	0.634	0.532
Shared Information (INFO)	0.908	0.669	0.626
Contrib to Meetings (MEET)	0.791	0.636	0.658
Shared Identity (IDEN)	0.911	0.655	0.600
Absence of Shared Goals (~GOAL)	0.216	0.314	0.751
Absence of Norms (~NORM)	0.403	0.463	0.726
Absence of Mutual Support (~SUPP)	0.154	0.248	0.744
Absence of shared information (~INFO)	0.286	0.380	0.744
Lack of Contrib to Meetings (MEET)	0.412	0.474	0.731
Absence of shared identity (IDEN)	0.317	0.439	0.775

In addition to the individual necessary conditions, three necessary conjunctions were found, with higher levels of coverage and RoN; the set of cases with mutual support and shared information; mutual support and shared goals; and shared information and shared goals, all of which are necessary for subjective effectiveness.

TABLE 5.13 *NECESSARY CONJUNCTIONS FOR SUBJECTIVE EFFECTIVENESS*

Boolean exp	inclN	covN	RoN
SUPP*GOAL	0.931	0.734	0.748
INFO*GOAL	0.900	0.779	0.771

SUPP*INFO	0.903	0.727	0.732
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For the absence of subjective effectiveness, three necessary disjunctions were found, each of which had the negated form of five of the six conditions. When 'shared identity' was included with the five conditions of the original model and a truth table developed, the intermediate solution produced two pathways to the outcome of subjective effectiveness, both of which included shared goals, mutual support, shared information, and shared identity.

TABLE 5.14 TRUTH TABLE FOR SUBJECTIVE EFFECTIVENESS

Row	SUPP	INFO	GOAL	NORM	MEET	IDEN	OUT	cases	incl	PRI
64	1	1	1	1	0	1	1	4	0.877	0.803
62	1	1	1	1	0	1	1	2	0.873	0.739
48	1	0	1	1	1	1	1	3	0.838	0.682
63	1	1	1	1	1	0	1	1	0.828	0.525
60	1	1	1	0	0	1	1	1	0.742	0.330
42	1	0	1	0	0	1	0	1	0.698	0.035
17	0	1	0	0	0	0	0	1	0.634	0.054
28	0	1	1	0	1	1	0	1	0.622	0.116
32	1	1	0	0	1	1	0	1	0.620	0.159
18	0	0	1	0	1	0	0	1	0.572	0.024
13	1	1	0	1	0	1	1	1	0.487	0.000
27	0	1	1	0	0	1	0	1	0.483	0.000
7	0	0	0	1	1	0	0	1	0.429	0.019
4	0	0	0	0	1	1	1	1	0.404	0.000
19	0	1	0	0	1	1	0	1	0.399	0.000
49	1	1	0	0	0	0	0	0	0.356	0.000

Many of the rows in the truth table have low measures of PRI and should not be included in the analysis. The consistency threshold is therefore set at 0.83. When minimised, five of the six conditions are sufficient for subjective effectiveness in both the complex solution and the intermediate solution, while the parsimonious solution minimises the truth table down to one pathway – shared goals, shared information, and shared identity are sufficient for subjective effectiveness.

TABLE 5.15

SOLUTIONS FOR SUBJECTIVE EFFECTIVENESS

	Boolean expression -> SUBEFF	inclS	PRI	covS	covU
PS	GOAL*INFO*IDEN -> SUBEFF	0.805	0.722	0.863	
CS	M1;	0.866	0.803	0.846	
	GOAL*NORM*SUPP*INFO*IDEN	0.884	0.821	0.679	0.090
	GOAL*SUPP*INFO*MEET*IDEN	0.859	0.787	0.756	0.167
IS	M1;	0.866	0.803	0.846	
	GOAL*NORM*SUPP*INFO*IDEN	0.884	0.821	0.679	0.090
	GOAL*SUPP*INFO*MEET*IDEN	0.859	0.787	0.756	0.167

Carrying out the Enhanced Standard Analysis (ESA) for subjective effectiveness (ie checking for contradictory or untenable assumptions used in the minimization), the Enhanced Intermediate solution remained unchanged, mutual support, shared goals, norms, information, and shared identity led to subjective effectiveness; or shared goals, mutual support, shared information shared identity and good contribution to meetings led to subjective effectiveness

GOAL*NORM*SUPP*INFO*IDEN +GOAL*SUPP*INFO*MEET*IDEN -> SUBEFF

The enhanced parsimonious solution was slightly changed. A combination of shared goals, mutual support, shared information, and shared identity produced subjective effectiveness.

TABLE 5.16

ENHANCED SOLUTIONS - SUBEFF

	Boolean expression -> SUBEFF	inclS	PRI	covS	covU
PS	GOAL*SUPP*INFO*IDEN -> SUBEFF	0.847	0.777	0.858	
IS & CS	GOAL*NORM*SUPP*INFO*IDEN	0.884	0.821	0.679	0.090
	GOAL*SUPP*INFO*MEET*IDEN	0.859	0.787	0.756	0.167

5.4.6 Necessity and Sufficiency for Objective Effectiveness

The solutions produced for objective effectiveness were, to some extent, contrary to the theoretical expectations put forward by the model. None of the conditions were found to be necessary for objective effectiveness. There was one necessary disjunction for objective effectiveness:

$$\sim\text{SUPP} + \sim\text{INFO} + \sim\text{GOAL} + \sim\text{MEET} * \text{NORM} \rightarrow \text{OBJEFF}$$

Or the absence of mutual support, the absence of shared information, the absence of shared goals, or the absence of contribution to meetings in the presence of shared norms were necessary for objective effectiveness. The consistency level for mutual support was above the 0.9 threshold for necessity in the **absence** of objective effectiveness, but other parameters of fit were too low for the condition to be considered necessary in the absence of objective effectiveness.

TABLE 5.17 NECESSARY CONDITIONS FOR OBJECTIVE EFFECTIVENESS

	Positive outcome (OBJEFF)			Negative outcome (~objeff)		
Condition	Consistency	Coverage	RoN	Consistency	Coverage	RoN
SUPP	0.695	0.638	0.535	0.911	0.453	0.424
INFO	0.657	0.662	0.622	0.836	0.457	0.505
GOAL	0.722	0.695	0.613	0.849	0.441	0.464
NORM	0.709	0.783	0.763	0.692	0.414	0.545
MEET	0.701	0.772	0.754	0.762	0.455	0.562
IDEN	0.718	0.707	0.639	0.838	0.447	0.484
~SUPP	0.404	0.905	0.963	0.273	0.327	0.781
~INFO	0.461	0.845	0.946	0.382	0.376	0.743
~GOAL	0.420	0.845	0.932	0.414	0.446	0.789
~NORM	0.469	0.751	0.802	0.636	0.542	0.757
~MEET	0.505	0.809	0.894	0.618	0.528	0.752

~IDEN	0.439	0.837	0.931	0.451	0.465	0.783
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None of the conditions were individually sufficient for either the presence or absence of objective effectiveness. Minimisation of the truth table for both the parsimonious solution and the intermediate solutions produced a complex blend of permutations, all with low coverage levels (less than 0.3). Dusa (2019) warns that in some cases, the researcher must be alert to the possibility of ‘automatic super concepts’. These are disjunctions or conjunctions derived from the data environment rather than concepts with genuine theoretical meaning. In other words, while the software can find all possible necessary expressions in certain data, the researcher must be cautious about assuming that they should be interpreted as higher-order concepts.

TABLE 5.18 *PARSIMONIOUS SOLUTION FOR OBJECTIVE EFFECTIVENESS*

Boolean expression	inclS	PRI	covS	covU	M1	M2
~SUPP*MEET	0.997	0.995	0.244	0.045	0.045	0.075
~GOAL*INFO*IDEN	0.984	0.976	0.267	0.047	0.095	0.064
~GOAL*~SUPP	0.997	0.996	0.256	0.022	0.029	
GOAL*~INFO*~IDEN	0.952	0.920	0.256	0.032		0.038
M2	0.968	0.951	0.425			

The intermediate solution produced one model with two pathways; the absence of mutual support and shared goals OR the absence of mutual support with good contribution to meetings OR the absence of shared goals and the absence of shared information with the presence of shared norms and shared identity were sufficient for objective effectiveness.

In other words, the data suggests that to produce the outcome of objective effectiveness, the networks would not offer mutual support, they would not share goals, but members would contribute well to meetings, or they would not share goals or information but would have a shared identity and shared norms. These results make no sense, and the pattern of results suggests that there is not much commonality between the factors in the model and the outcome of objective effectiveness.

There is also very little commonality between the conditions that are necessary or sufficient for subjective effectiveness and objective effectiveness. Table 5.19 below shows the cases that have membership in the subjective effectiveness set (>0.5), compared with those in the objective effectiveness set. Only 8 cases were consistently in or out of the respective set.

TABLE 5.19 *SUBJECTIVE AND OBJECTIVE EFFECTIVENESS*

Case	SUBEFF	OBJEFF
1AF	√	x
1HD	x	x
2AF	x	√
2HD	x	√
3HD	x	√
4AF	√	x
4HD	√	x
5HD	x	x
6AF	√	√
7AF	√	√
8AF	√	√
8HD	√	x
11AF	√	x
11HD	x	√
12AF	√	√
13AF	√	x
14AF	x	x
17HD	x	√
18AF	√	√
18HD	√	x
19AF	√	x
19HD	x	√

TABLE 5.20

NECESSITY FOR SUBJECTIVE AND OBJECTIVE EFFECTIVENESS

Condition	Positive outcome (SUBEFF)			Negative Outcome (~SUBEFF)		
	Cons	Cov	RoN	Cons	Cov	RoN
IDEN	0.911	0.709	0.609	0.710	0.485	0.468
Condition	Positive outcome (OBJEFF)			Negative Outcome (~OBJEFF)		
	Cons	Cov	RoN	Cons	Cov	RoN
IDEN	0.753	0.767	0.728	0.855	0.435	0.445

A final test included subjective effectiveness as a condition and explored the necessity and sufficiency of subjective effectiveness for objective effectiveness. Subjective effectiveness was not necessary for either objective effectiveness or its absence. Minimising the truth table to identify the conditions, or combinations of conditions, sufficient for objective effectiveness produced extreme model ambiguity, or a total of 20 potential models or combinations of conjunctions and disjunctions. This may mean that the software is making essentially meaningless patterns from the data using every possible combination. Carrying out the analysis with only shared identity and subjective effectiveness found that the absence of shared identity and subjective effectiveness were sufficient for objective effectiveness.

TABLE 5.21

NECESSITY OF SUBJECTIVE FOR OBJECTIVE EFFECTIVENESS

Condition	Positive outcome (OBJEFF)			Negative Outcome (~OBJEFF)		
	Cons	Cov	RoN	Cons	Cov	RoN
SUBEFF	0.579	0.705	0.609	0.831	0.548	0.660

TABLE 5.22

SUFFICIENCY FOR OBJECTIVE EFFECTIVENESS

Condition	Positive outcome (OBJEFF)			
	Cons	PRI	CovS	CovU
~IDEN	0.835	0.718	0.402	0.021
~SUBEFF	0.873	0.802	0.629	0.249

5.5 Key Findings and Conclusion

- None of the conditions are individually necessary for shared identity, but there are two necessary disjunctions: shared goals or shared information, OR shared goals or contribution to meetings.
- Four of the five conditions (shared goals, mutual support, shared information, and contribution to meetings) are individually sufficient for shared identity.
- Both the Enhanced Intermediate solution and the Enhanced Parsimonious solution produce two pathways – one of which is **shared goals and mutual support**.
- The second parsimonious pathway is **mutual support, shared information, and good contribution to meetings**, while the second intermediate solution adds shared norms.
- Three of the six conditions are individually necessary for Subjective Effectiveness – **shared goals, mutual support, and shared information**.
- There are three necessary disjunctions for subjective effectiveness: mutual support or shared goals, shared information or shared goals, and mutual support or shared information.
- The Enhanced solutions for subjective effectiveness are more complex than those for shared identity: the parsimonious solution includes shared goals, mutual support, shared information, and shared identity.
- The intermediate and complex are the same. They have two pathways, each including five of the six conditions. Both pathways have shared goals, mutual support, shared information, and shared identity in common.

- There are no necessary or sufficient conditions for objective effectiveness.
- The parsimonious solution for objective effectiveness includes four pathways with several negated conditions. Many of these solutions contradict previous literature, such as, for example, the absence of shared goals and the absence of mutual support, which produce objective effectiveness.
- Shared identity is necessary for subjective effectiveness, but not in the absence of subjective effectiveness.
- Shared identity is not necessary for Objective effectiveness or for the absence of objective effectiveness.
- There is very little commonality between the factors that are necessary or sufficient for subjective effectiveness and objective effectiveness.

The most consistent pattern discernible from the data is that mutual support and shared goals are important conditions in these networks. From this, we can surmise that a commitment to the shared goals of the group leads to other positive behaviours, which makes some conditions redundant in the development of a shared identity. If an individual member is committed to the shared goals, perhaps they do not need agreed norms to regulate their behaviour, or they do not need every member to contribute to the meetings, because the collective sharing of goals, along with the feeling of mutual support between members, can engender a feeling of belonging to a collective that has some importance for them.

The importance of shared goals in these networks is unsurprising, given that their establishment was strongly linked to the achievement of specific, predetermined goals. The groups developed local strategies that translated the high-level goals into action. Therefore, an understanding of the goals was unavoidable for members who participated in the network discussions at that time. Also, in many, but not all, cases, members of the networks were made aware of the key goals prior to becoming members. The following chapter was expand on the discussion of the various pathways leading to the outcome of shared identity through an in-depth examination of cases identified as typical or individually irrelevant (typ/iir comparisons).

5.6 Robustness tests

It is generally considered best practice (Wagemann and Schneider, 2014) to verify the reliability of the analysis by conducting robustness tests on completion of the QCA analysis. QCA researchers make decisions during the analysis, such as deciding on the raw consistency level following the development of the truth table, deciding the frequency cut-off, and the calibration anchors and thresholds for membership or non-membership of a set. These decisions can potentially change the eventual findings. Therefore, the aim of robustness testing is to check the extent to which the researcher's choices have influenced the results. The basic principle behind the testing of robustness is that the initial solution (IS) is first produced, and then three alternatives, called test solutions (TS), are produced and ultimately the researcher seeks to find the intersection of the initial solution with the three test solutions. This is called the robust core.

The robustness testing for the calibration process was outlined in Section 4.4.3. The next step is to develop the test solutions by first altering the consistency threshold (TS1) then the calibration anchors for one condition at a time (TS2) and then adding in a changed frequency cut with a change of calibration anchors (TS3). These three test sets are combined to create one test set (TS) and to find the robust core (RC) the initial solution is intersected with the combined test solutions. The aim is to produce a 'hard test' by setting these cut-offs as far outside the sensitivity range (from the earlier analysis) as possible while still remaining above the minimum acceptable parameters for all QCA analyses (Oana and Schneider, 2021). Full details of the robustness analysis are provided in Appendix 2. This section will simply report the outcome of the tests, the measure of robustness fit.

TABLE 5.23

ROBUSTNESS FIT OF CONDITIONS

	RF_cov	RF_cons	RF_SC_minTS	RF_SC_maxTS
Robustness Fit (SUPP)	0.853	0.972	0.829	0.755
Robustness Fit (GOAL)	0.943	0.985	0.946	0.762
Robustness Fit (NORM)	1	1	0.907	0.743
Robustness fit (MEET)	0.939	1	0.894	0.869
Robustness fit (INFO)	0.957	0.971	0.827	0.743

These parameters show how big the overlap is between the initial solution, the robust core, and the minimum and maximum test sets. The closer these values are to 1 the closer they are to perfect robustness. The robustness fit for the initial solution (IS) is quite close to 1 for all but one of the conditions (SUPP), suggesting that the initial solution is robust to the changes that have been applied.

5.7 Post-QCA analysis

5.7.1 Theory evaluation with QCA

As discussed above, QCA has features that are common to both qualitative and quantitative methods. From the qualitative perspective, the researcher is required to play an active part in inserting what is described as their 'theoretical hunches' into the analytical process through their choice of cases and their specification of the directional expectations for the intermediate solution. When carrying out the QCA analysis, the rates of coverage and consistency are used to determine the necessity and sufficiency of the outcome. However, this analysis does not always provide full information about the explanatory power of the theory proposed by the researcher. QCA analysis does not test hypotheses in the same way that quantitative analysis does. Instead, the solution produced may include some paths that support the theory, others that contradict the theory, and still others that do not include the combination of conditions proposed by the theory and therefore are deemed irrelevant from a theoretical perspective (Gromes, 2018). When Ragin developed set-theoretic theory evaluation, he offered researchers a procedure that would assess

the relevance of the empirical findings for the original theoretical model (Oana, Schneider and Thomann, 2021).

In this study, the original theoretical expectations were that five conditions – shared goals, norms, and information—along with mutual support and good contribution to meetings—would produce the outcome of shared identity. To evaluate the overlap between the model and the empirical solutions, the procedure intersects the three sets – cases with the outcome ($Y > 0.5$), the solution set (S) and the theory set (T). The intersection of these three sets and their negation produces eight possible options, based on whether they are covered or not by the empirical solution and whether they fit with the theoretical expectations of the model.

To evaluate the theoretical expectations, it is recommended that the researcher use the intermediate solution (Schneider and Wagemann, 2012). When this solution is intersected with the evidence, the procedure finds that cases are fairly evenly split into three categories; ‘Covered most likely’, ‘Covered least likely’ and ‘Consistent least likely’ with six cases in each category. The category ‘Covered most likely’ represents the intersection of the study’s original theoretical expectations with the solution (produced by the QCA analysis) among those cases that have the outcome (T^*S ; $Y > 0.5$). A high percentage of cases in the intersection of these three sets indicates a good fit between the original theory and the empirical evidence.

TABLE 5.24 INTERSECTIONS OF THEORY AND EVIDENCE

Name	Intersection	% cases	Boolean Expression
Covered Most Likely	T^*S and $Y > 0.5$	4 cases 18%*	$GOAL^*INFO^*MEET^*NORM^*SUPP$ 4AF 8AF 11AF 19AF
Covered Least Likely	$\sim T^*S$ and $Y > 0.5$	8 cases 36%	$\sim GOAL^*INFO^*MEET +$ $GOAL^*\sim INFO^*SUPP +$ $GOAL^*\sim MEET^*SUPP +$ $GOAL^*\sim NORM^*SUPP$ 1AF, 1HD, 4HD, 7AF, 12AF, 13AF, 18AF, 18HD
Uncovered most likely	$T^*\sim S$ and $Y > 0.5$	No cases 0%	Empty Set

Uncovered least likely	$\sim T^* \sim S$ and $Y > 0.5$	2 cases 9%	$\sim \text{SUPP} + \sim \text{GOAL}^* \sim \text{INFO}$ $+ \sim \text{GOAL}^* \sim \text{MEET} + \sim \text{GOAL}^* \sim \text{NORM}$ 2AF, 17HD,
Inconsistent most likely	$T^* S$ and $Y < 0.5$	No cases 0%	Empty set
Inconsistent least likely	$\sim T^* S$ and $Y < 0.5$	No cases 0%	Empty set
Consistent most likely	$T^* \sim S$ and $Y < 0.5$	0%	Empty set
Consistent least likely	$\sim T^* \sim S$ and $Y < 0.5$	7 cases 32%	$\sim \text{SUPP} + \sim \text{GOAL}^* \sim \text{INFO} +$ $\sim \text{GOAL}^* \sim \text{MEET} + \sim \text{GOAL}^* \sim \text{NORM}$ 2HD, 3HD, 5HD, 8HD, 11HD, 14AF, 19HD

The cases in the 'consistent least likely' are in line with our theory; they **do not** have the conditions that are expected to produce a shared identity and **do not** produce the outcome. They are substantially irrelevant to our theory. The two cases in the category 'Uncovered least likely' are the ones that are most puzzling; they have the outcome of shared identity, but their configuration of conditions is not predicted by the theory and is not covered by the solution term developed by the QCA analysis. If there were many cases in this category, it might suggest that there are conditions missing from the original theory or the empirical solution, and further analysis of these cases would be warranted. However, in this study, there are only two cases in this category. It would be difficult to draw any strong conclusions from further analysis of only two cases.

Cases in the $T^* \sim S$ intersection, or cases that are compatible with the original theory but not with the solution or the outcome ($\sim Y$), contradict both the theoretical expectations and the empirical findings. These cases are categorised as 'Inconsistent most likely', as they are inconsistent with the solution and the theoretical expectation that they would achieve the outcome. If there were many cases in this category, the empirical support for the theory would be undermined. However, in this study, there are no cases in this category. The other potentially puzzling case is the

‘Inconsistent least likely’ category. It has all the conditions in the original theory and the conditions in the solution term, but it does not have the outcome. Again, in this study, there are no cases in this category or in the Consistent Most Likely category, suggesting that the theory and evidence are relatively consistent.

The final theory evaluation test to be carried out looks at the parameters of fit for each of the four possible intersections of theory and evidence. As is the norm, the closer to 1 the better.

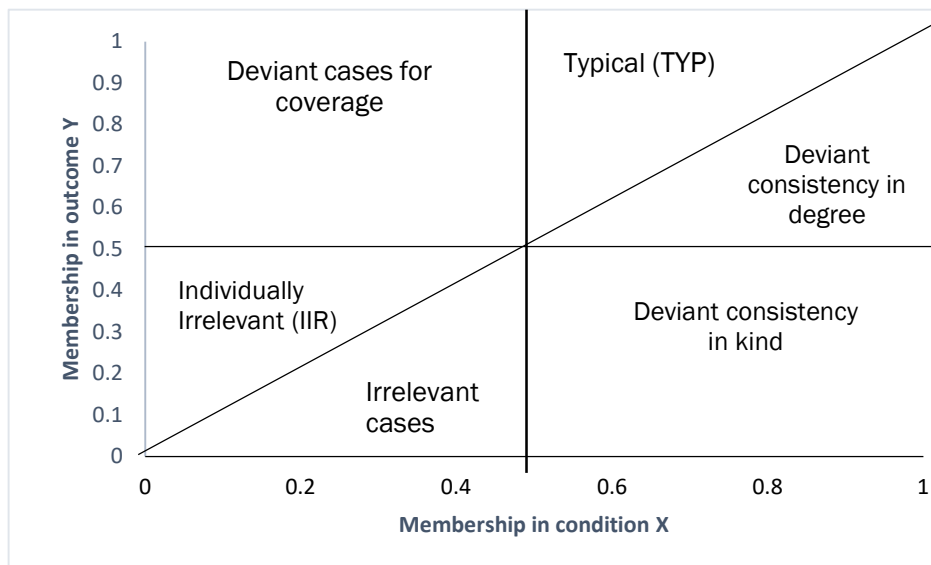
TABLE 5.25 *PARAMETERS OF FIT FOR THEORY EVALUATION*

	Cons.Suf	Cov.Suf	PRI
GOAL*SUPP	0.895	0.766	0.856
NORM*SUPP*INFO*MEET	0.906	0.482	0.843
Sol.formula	0.887	0.774	0.846
Theory	0.920	0.474	0.863
T*S	0.920	0.474	0.863
~T*S	0.982	0.529	0.972
T*~S	0.951	0.172	0.840
~T*~S	0.602	0.373	0.317

5.7.2 Selection of Cases for further analysis (SMMR)

As discussed in Chapter 3, set-theoretic multimethod research has been developed to strengthen the capacity for causal analysis in QCA by linking the truth table analysis with follow-up case studies carried out on specifically chosen cases (Schneider and Rohlfing, 2019). This section will present the analysis carried out using the set methods package in R, (Oana and Schneider, 2018) to identify the specific cases that are to be subjected to more in-depth analysis at the within-case level. The figure below sets out the categorisation of various cases against membership criteria as defined for the SMMR procedure.

FIGURE 5.2 GENERAL CATEGORISATION OF CASES FOR SMMR

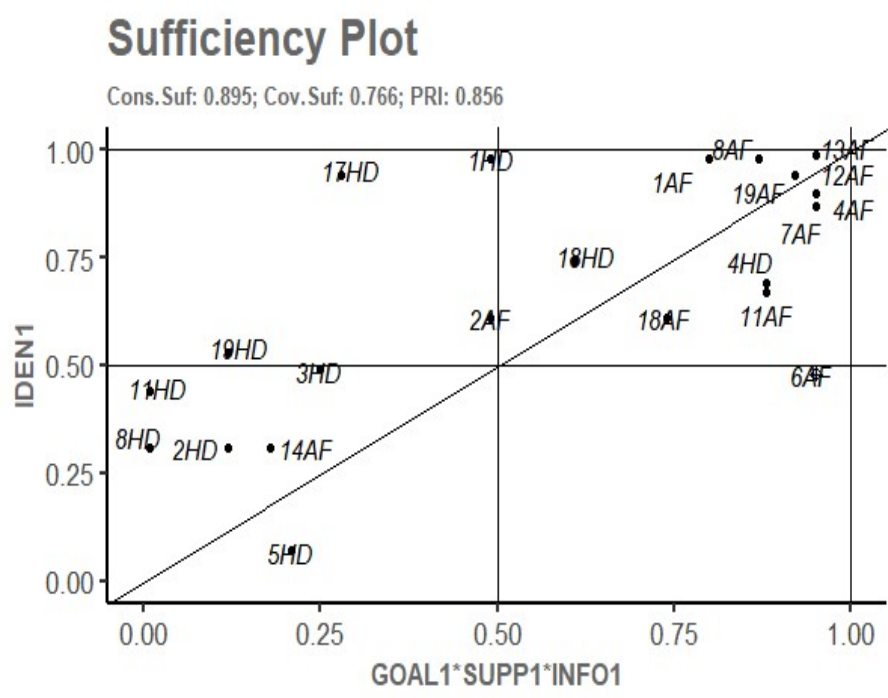


The type of case selected is related to the aim of the future analysis to be carried out. For example, comparison of Typical cases with IIR cases can offer insight into the causal properties of the mechanism that accounts for the link between the sufficient term and the outcome.

Comparison of a Typical with another Typical case can help indicate how generalizable the mechanism may be. Comparing a Typical with a Deviant Consistency case can potentially help identify an omitted conjunct while comparing an IIR case with a Deviant Coverage case can help identify a missing element (Oana et al., 2021).

To determine causality, each conjunct in the conjunction should make a difference to the causal mechanism. However, there has been some debate about the most appropriate solution to use (see section 3.11.6). Having considered the various arguments, this study uses the enhanced intermediate solution (Oana, Schneider and Thomann, 2021) as both the complex solution and the intermediate solution include the same combinations of conditions and include two different pathways to the outcome. It has been A combination of shared goals and mutual support (GOAL*SUPP) or shared norms, mutual support, shared information, and good contribution to meetings (NORM*SUPP*INFO*MEET) leads to a shared identity.

FIGURE 5.3 SUFFICIENCY PLOT FOR ENHANCED INTERMEDIATE SOLUTION



The table below (5.26) identifies the best cases to be further analysed to achieve each of the above aims. For causal inference, the aim is to compare the best typical/IIR matches for each of the focal conjuncts in turn to assess whether each focal conjunct is relevant for the mechanism. If there is evidence of the causal mechanism in the typical case but not in the irrelevant one, then it can be assumed that the mechanism is a difference-maker for the outcome.

For each of the two solution terms, the aim is to find cases that are in rank 1 or 2. The table below sets out the choices made by the software based on a range of different parameters. We find that for the solution term GOAL*SUPP, all cases receive higher rankings than the best matching pairs for NORM*SUPP*INFO*MEET. These cases will be prioritised in the within-case analysis as they are likely to provide the most reliable evidence of a causal mechanism (if one is to be found) linking the solution terms GOAL*SUPP to the outcome of shared identity.

TABLE 5.26 BEST-MATCHING PAIRS FOR CAUSAL INFERENCE

Focal Conjunct GOAL			Focal Conjunct SUPP			Focal Conjunct INFO		
TYP	IIR	Rank	TYP	IIR	Rank	TYP	IIR	Rank

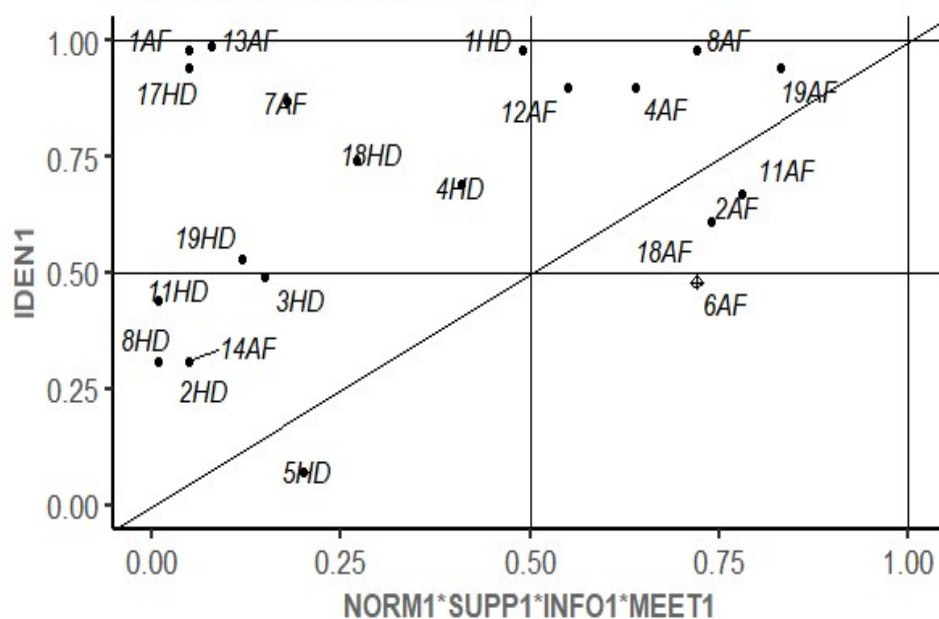
8AF	14AF	1	13AF	11HD	1	19AF	5HD	3
18HD	14AF	2	1AF	11HD	1	19AF	8HD	3
1AF	14AF	2	8AF	11HD	2	18HD	5HD	3
13AF	14AF	2	18HD	11HD	2	18HD	8HD	3
19AF	14AF	2	19AF	11HD	2	19AF	3HD	3

TABLE 5.27 BEST-MATCHING PAIRS FOR CAUSAL INFERENCE

Focal Conjunct NORM			Focal Conjunct SUPP			Focal Conjunct INFO			Focal Conjunct MEET		
TYP	IIR	Rank	TYP	IIR	Rank	TYP	IIR	Rank	TYP	IIR	Rank
4AF	5HD	3	8AF	11HD	5	8AF	3HD	6	12AF	14AF	4
19AF	5HD	3	12AF	11HD	5	19AF	3HD	6	12AF	3HD	4
8AF	5HD	3	4AF	11HD	5	12AF	3HD	6	12AF	8HD	4
4AF	2HD	3	19AF	11HD	5	4AF	3HD	6	12AF	5HD	4
4AF	14AF	3	8AF	2HD	6	8AF	8HD	6	4AF	14AF	4

Sufficiency Plot

Cons.Suf: 0.906; Cov.Suf: 0.482; PRI: 0.843



Finally, if the aim is to assess the level of generalizability of this research, it is best to compare typical with typical cases, and the table below sets out the best choices. When comparing typical with typical cases, pairs should be, if possible, in Rank 1, and the figure for the 'Best' measure should be as low as possible.

TABLE 5.28 TYPICAL/TYPICAL COMPARISONS FOR GENERALISATION

GOAL *SUPP				
TYP1	TYP2	UniqCov	Best	Most Typ
13AF	18HD	Both	0.75	None
1AF	18HD	Both	1.19	None
13AF	1AF	Both	1.28	None
13AF	8AF	Typ1	1.21	None
19AF	18HD	Typ2	0.79	Typ1

<i>NORM*SUPP*INFO*MEET</i>				
<i>Typ</i>	<i>IIR</i>	<i>UniqCov</i>	<i>Best</i>	<i>Most Typ</i>
<i>4AF</i>	<i>12AF</i>	<i>Both</i>	<i>2.13</i>	<i>None</i>
<i>19AF</i>	<i>4AF</i>	<i>Typ2</i>	<i>1.51</i>	<i>Typ1</i>
<i>19AF</i>	<i>12AF</i>	<i>Typ2</i>	<i>1.60</i>	<i>Typ1</i>
<i>8AF</i>	<i>4AF</i>	<i>Typ2</i>	<i>1.88</i>	<i>None</i>
<i>8AF</i>	<i>12AF</i>	<i>Typ2</i>	<i>1.97</i>	<i>None</i>

The mechanism linking shared goals to shared identity can be seen as part of the cognitive process, while mutual support is depicted as an affective process based on the generation of positive emotions between members of the group. These positive emotions are the potential outcome of numerous features of group interactions, such as ‘attraction bonds’ or the affective intensity of the group (Forsyth, 2021)

Having identified the best pairings, the next chapter will discuss the implications of the findings from the analysis, focusing particularly on the above cases. The chapter will first explore the relevance of the identification of a causal mechanism and then move on to consider generalizability. In the section that follows, data from the semi-structured interviews will be analysed to identify traces of these processes in the comments and evaluations made by members of the groups. It may not be possible to discover evidence of all three processes, but where the mechanism exists, there should ideally be some evidence of the cognitive and/or affective as well as the behavioural processes. For example, if there is evidence of regular interaction at meetings and the engagement of regular attendees, sharing information, and collaborating, there should also be evidence of perhaps a process of socialisation, a shared reality, or an awareness of the group as an entity, along with some trace of enthusiasm or emotional connections and respect between members.

6 Analysis and Discussion.

6.1 Introduction

This research has several analytical strands, each linked to the next.

- To identify the conditions necessary and/or sufficient for shared identity and to test the theoretical model.
- To discover whether shared identity is necessary for subjective (network) effectiveness, objective (community) effectiveness, or both.
- To explore the differences between subjective and objective effectiveness, based on the empirical evidence in this study.
- To identify and understand the causal mechanism linking the findings from the QCA analysis of model conditions to the outcomes of shared identity and effectiveness.

To make a contribution to existing knowledge, the study aims to go beyond the identification of factors that contribute to effectiveness – an exercise that has already been carried out successfully by many, more eminent scholars (Provan and Milward, 1995; Bryson, Crosby and Stone, 2006, 2015; Ansell and Gash, 2008; Turrini *et al.*, 2010; Keast and Mandell, 2013; Cristofoli, Macciò and Pedrazzi, 2015; Raab, Mannak and Cambré, 2015) Instead, one of the main objectives was to develop a ‘short cut’ for practitioners, condensing a number of conditions into one single, recognisable concept (shared identity), while also seeking to articulate a more in-depth understanding of the mechanism linking the potentially causal conditions to the outcome of shared identity and ultimately effectiveness. Having identified the conditions that are sufficient for shared identity through the cross-case analysis, the discussion in this chapter will go deeper, and by carrying out a structured comparison of cases, focusing on the *within*-case factors, and identifying the causal mechanism operating in these cases, help explain **why and how** these factors produce the outcome.

The previous chapter analysed the data to derive the QCA solutions using the model based on literature. It also carried out robustness tests to verify the findings and carried out additional

post-QCA analysis to test the original theory against empirical evidence. This chapter will discuss the results of these analytical procedures. It will start with a discussion of the contextual conditions and present evidence from two qualitative interviews with senior national programme staff that may help explain differences in findings between the two programmes. It will then discuss the implications of the theory testing procedure, followed by a brief discussion of the findings related to subjective and objective effectiveness.

The proposed causal mechanism, outlined in Section 2.5.2, will then be re-introduced along with an outline of the expected relationships between conditions. The causal mechanism is an expanded version of the original model, developed using data from the qualitative interviews and evidence from the literature. The main body of the discussion of individual cases will then follow. This process of comparing specially chosen cases as representatives of either typical or individually irrelevant cases is known as set-theoretic multi-method research, or SMMR. Finally, this discussion will conclude by drawing causal inferences about the link between the existence of a shared identity in governance networks and their effectiveness.

6.2 Contextual analysis

It has long been recognised that the context within which a programme operates can have an impact on the success or failure of the programme. In this study, many of the potential contextual differences were held constant through the selection of cases that were similar in many respects (see Section 3.6). The contextual conditions that were used were captured by means of two indicators; one that uses the size of the local authority and its overall budget as a proxy for resource munificence, and the other that seeks to represent programme differences, such as the provision of training or other supports by the national agency. When these two measures were analysed using the QCA two-step process (Schneider, 2019), neither of the two conditions reached the threshold for necessity (0.9) and were therefore excluded from the analysis, as per the procedure. However, subsequent analysis identified patterns of differences between the two programmes (see Appendix 26).

The analysis won't be repeated here, but in summary, the empirical data from the AF programme suggest that various conjunctions of conditions from the original theoretical model produce the outcome of shared identity and also subjective effectiveness. In contrast, the HD programme

provides less empirical support for the original model. In total, fifteen cases had developed a shared identity, and of those, ten were in the AF programme and five were in the HD programme. Similarly, thirteen cases had high levels of subjective effectiveness, and of them, ten were from the AF programme. Eleven out of the twenty-two cases had a high level of objective effectiveness, and they were relatively evenly split between the two programmes; six cases were in the AF programme and 5 were in the HD programme.

Data from interviews with key national programme managers provided further depth to the understanding of the two programmes. To summarise, the interviewees' highlighted and validated many of the factors that were included in the model. In addition, they identified other factors, such as stakeholder engagement or policy influence, as contributing to the (subjective) success of the programme. Both factors have potential links to the theorised mechanism operating in the cases. Through stakeholder engagement, for example, members can develop a deeper understanding of the challenges faced by disabled people. This understanding promotes a sense of shared reality or empathy for other members of the network, which in turn can promote greater cognitive and affective commitment to the network. Group discussions also provide relevant and useful information that can be highly beneficial for the member organisations. Encouraging all group members to participate in the strategy development process empowers each individual and underscores the importance of interdependence, thereby promoting joint responsibility for the development of the strategy.

The evidence suggests that the managers of the national Age Friendly programme believe that they have generated strong enthusiasm or energy around the objectives of the programme. They believe their success can be attributed to their many committed members and the strong relationships between individuals who share information and best practices easily.

However, this study did not set out to explore the impact of national programme factors on the effectiveness of the local groups. Instead, the aim was to focus on the factors that produce a shared identity among a group of individuals – an aim that necessitated a focus on the micro or individual level. The interviews carried out with the national office interviewees identified a range of potential programme factors (or conditions) that may have an impact on effectiveness. Carrying out a QCA analysis with a focus on the necessity and sufficiency of these conditions for effectiveness is an area that would benefit from further research.

6.3 Evaluation of theory against empirical data

The early chapters of this study, particularly Chapter 2, set out the evidence linking concepts known to contribute to effective governance networks and to identity formation in a group context. Based on this review of the literature, five conditions were included in the theoretical model, and it was hypothesised that the combination of these five conditions (shared goals, shared information, shared norms, mutual support and good contribution to meetings) would produce the outcome of a shared identity.

As outlined in the preceding chapter (see Section 5.7.1), an evaluation of the theoretical expectations against the empirical data suggests that a combination of the proposed five conditions is not strongly supported by the empirical data. Of the fifteen cases that had the outcome of shared identity, only seven had all five of these conditions (47%). Instead, the data suggests that different combinations of the five conditions are sufficient to produce the outcome. However, the study is exploratory, and it was not assumed that all five conditions were necessary and/or sufficient for the outcome. Instead, taking a configurational perspective, it was theorised that all five were potentially relevant for the outcome but that they may occur in different combinations or that certain conditions would always be required while others might be interchangeable. The use of QCA as an analytical tool was essential to achieving the aim of uncovering the interactions between the five conditions and, in particular, the combinations that could produce the outcome of shared identity. One conclusion that can be drawn from this finding is that many of the hypothesised conditions are empirically relevant, but it is difficult for a network to achieve the 'perfection' of all five conditions simultaneously.

When a more complex theoretical hunch (T2) was tested against the data, one that proposed different combinations of three conditions; (GOAL*NORM*SUPP*INFO*MEET) or (GOAL*SUPP*MEET) or (GOAL*SUPP*INFO) or (GOAL*SUPP*NORM) it proved to be a better empirical fit. In particular, the data suggested that the three options, each including GOAL and SUPP, and one other condition were supported by 71% of the cases that had the outcome of shared identity and 45% of all cases.

In QCA studies, there is no assumption of causal symmetry. In other words, it is not assumed that the conditions that produce the outcome was, in their absence, fail to produce the outcome. However, in this study, it does appear that the configuration of conditions that neither theory nor

empirical evidence finds to be sufficient for the outcome ($\sim T^* \sim S \rightarrow \sim Y$), appropriately enough, does not have the outcome. In other words, cases that do not have the outcome also do not have the combination of conditions that make up the solution. The fact that all conditions in this category are negated means that the directional expectations in the original theory are correct, and the absence of key conditions produces the absence of the outcome. When the alternative theoretical proposal (T2) is explored, the data again supports the idea that the absence of key conditions is linked to the absence of shared identity.

As outlined in Section 5.7.1 there were three anomalous cases, – categorised as ‘Uncovered least likely’. These are cases that have the outcome ($Y > 0.5$) but are not part of the intersection between the theory and the solution ($\sim T^* \sim S$). These cases (1HD, 17HD, 19HD) are explored in greater detail in the within-case analysis to follow in Section 6.6 of this chapter.

In conclusion, the theory evaluation technique, while not causally relevant, does provide a greater understanding of the patterns occurring within the data. When a network succeeds in developing a shared identity, one common feature is that the members all feel they will be supported by the other members. With only one data collection period, this study lacks a temporal perspective, and it is therefore not possible to show the direction of causality. However, as has already been recognised in literature, developing a shared identity or even a cohesive group in diverse networks such as these requires persistent effort and is likely to involve a ‘dialling down’ of the organisational identities of the group members. A perception of mutual support builds trust, enhances relationships, and is therefore more likely to precede the development of a shared identity.

6.4 Subjective and Objective Effectiveness

Measuring effectiveness has been a central pillar in this research, with the overall aim of assessing whether the development of a shared identity is a necessary or sufficient condition for effectiveness. Recognising debates in the literature on the validity of subjective and objective measures of effectiveness (Parks, 1984; Wall *et al.*, 2004), the approach taken in this study was to include both measures – subjective or network-level effectiveness and objective or community-level measures. The network-level measure was based on the subjective judgements of respondents when asked how effective they felt the network was. The objective measure, as is

often the case, was more difficult to develop. The availability of data on the provision of housing to disabled people over the appropriate period presented an obvious measure for the HD cases, but the AF programme is more diverse in its aim to effect change in eight different domains. No objective county-level data was available to measure progress in these areas. Instead, linked to the stated goal of the programme, a process measure was used, based on the aim of embedding the programme in the local authority processes and policies.

The study found that three of the original model conditions—shared goals, mutual support, and shared information—are individually necessary for subjective effectiveness. This means that these three conditions must be present for subjective effectiveness to occur, but the presence of these conditions does not guarantee that it is present. It also found that shared identity is a necessary condition for subjective effectiveness. However, none of the conditions are necessary for objective effectiveness. The study also found three conjunctions of conditions; mutual support and shared information; mutual support and shared goals; and shared information and shared goals, all of which are necessary for subjective effectiveness. Finally, when shared identity is included as a condition, the (enhanced) parsimonious analysis found two pathways were sufficient for the outcome; either a combination of shared goals, norms, information, and mutual support or shared goals, information, mutual support, and good contributions to meetings led to subjective effectiveness.

This outcome fits expectations. These conditions were chosen because of their known link to effectiveness. However, what is unexpected is that there is no obvious connection between the conditions in the model and the measure of objective effectiveness. Using the same parameters of fit as were used for subjective effectiveness, the analysis found no necessary conditions and no conjunctions of necessary conditions. When the coverage and RoN parameters were reduced, two disjunctions were found. Either 'shared norms but no mutual support' OR 'regular contribution to meetings but again no mutual support' were found to be necessary for objective effectiveness. However, it must be acknowledged that the RoN parameter was reduced to a barely acceptable level of 0.5 to produce this solution. There is also no clear link between having a high level of subjective effectiveness and achieving a high level of objective effectiveness. Of the thirteen cases that had a high level of subjective effectiveness, only five also had a high level of objective effectiveness.

There are a number of possible explanations for this outcome. The first and most obvious is that the two are measuring different concepts. It is possible that the measure of subjective effectiveness captures a feeling that members have about the value of their collaboration with others in the group or that it is a measure of their satisfaction with the group. Without access to objective data linked to the impact of the group on the community they seek to serve, they may have no way of assessing effectiveness from the perspective of the community member other than to conflate the level of activity or the level of collegiality, cooperation, or collaboration with effectiveness. analysis of the data from qualitative interviews offers some support for this view; Two interviewees focused on collaboration and a third on networking when asked about effectiveness...

"And this is true collaboration and collaborative work, and we can make that actually happen and we've seen that's worked, I think we're quite effective at the moment and I think the relationships work well, we are working on different things..." (Interviewee from 19AF)

"I think collaboration is really the key between organisations, agencies, and older people. And I found that the Age Friendly Alliance has really been top-notch in collaboration." (Interviewee from 7AF)

And again, two interviewees saw effectiveness as something based on network-level characteristics. *"Yes, I think it's been very successful. I think it's worked really well. I think because we're so far into it, we've developed a very good structure, good relationships, and knowledge of who's out there and who needs to be brought into it. And I think it is recognised that it has been worked on by all of the players at the table...that they take it seriously."* (Interviewee from 4AF)

"I think it comes back to that networking and kind of, you know, meeting the people and putting the face to the organisation or the department. I think that's the important part of it. And I think if you make that connection and you know, you meet people, then maybe events or whatever and you'll be able to Tictac with them..." (Interviewee from 18AF)

Another interviewee saw that the higher-level objectives were the most relevant way of assessing effectiveness. She based her assessment of effectiveness on progress towards those goals. *"I think in terms of effectiveness, I'd like to think that we have been effective because, you know, even 50 percent of our ambitious five big themes and all of the actions within them. Yeah, it's going to help people and change their lives, hopefully for the better."* (Interviewee from 6AF)

Finally, one interviewee acknowledged that they had no evidence to support their view but were convinced that the group was effective, *“But certainly, I know we have brought benefits. The group has certainly brought benefit to the people of XXXX. I know that completely and utterly in my heart; I know it, but you know they're all small steps.”* (Interviewee from 11AF)

One alternative explanation that must be considered is that invalid measures were used to capture objective effectiveness. However, in the HD case, the groups were established to implement a national strategy that aimed to improve the provision of housing to disabled people, so an objective measure of housing provision is clearly relevant. The process measures developed to objectively assess effectiveness in the AF case are more open to question. The data was part of a survey carried out as part of an internal assessment of progress, and the programme managers regard them as appropriate measures. Statistical indicators of progress towards the goal of making their county more age-friendly would have been more appropriate if such measures had been available.

A final possibility to be considered is that many of the groups had not been in existence for long enough to really have an impact on the processes and systems that they sought to change. The provision of housing is a long-term process that can be affected by global and local circumstances. Data collection took place during the COVID-19 period. When groups were meeting online, many public servants were diverted to more urgent duties, and priorities were changed. Further research would be required to clarify which of these interpretations is correct.

6.5 Causal Mechanism

The philosophy of causation that guides this study is linked to an understanding that causality can best be identified through the causal mechanism that links conditions to effects. Using a regularity theory of causality, the QCA analysis found that different pathways or combinations of conditions lead to the formation of a shared identity. (See Table 5.11 for a comparison of the Enhanced Solutions). However, these factors in themselves do not cause the outcome. Instead, to quote Astbury and Leeuw, it is only by going “below the domain of empirical surface-level descriptions of constant conjunctions and statistical correlations that we can identify the underlying mechanisms...that account for regularities in the joint-occurrence of events” (Astbury and Leeuw, 2010 p.368).

The theoretical model, informed by an extensive review of literature, offered a minimalist presentation of the potential underlying mechanism. Further analysis of the qualitative interviews has provided some detail to fill in the gaps in the original model. To understand the mechanism linking the cause and the outcome, it is necessary to go deeper than the original model to understand the process of psychological change that can take place when a person joins a group.

The QCA analysis found that two conditions — **shared goals, mutual support** were sufficient for the outcome using the enhanced intermediate solution. Based on these findings, a revised model has been developed, supported by the literature outlined in Chapter 2. This revised model seeks to explain the relationships between these two conditions and the outcome and is depicted in Fig. 6.1 below.

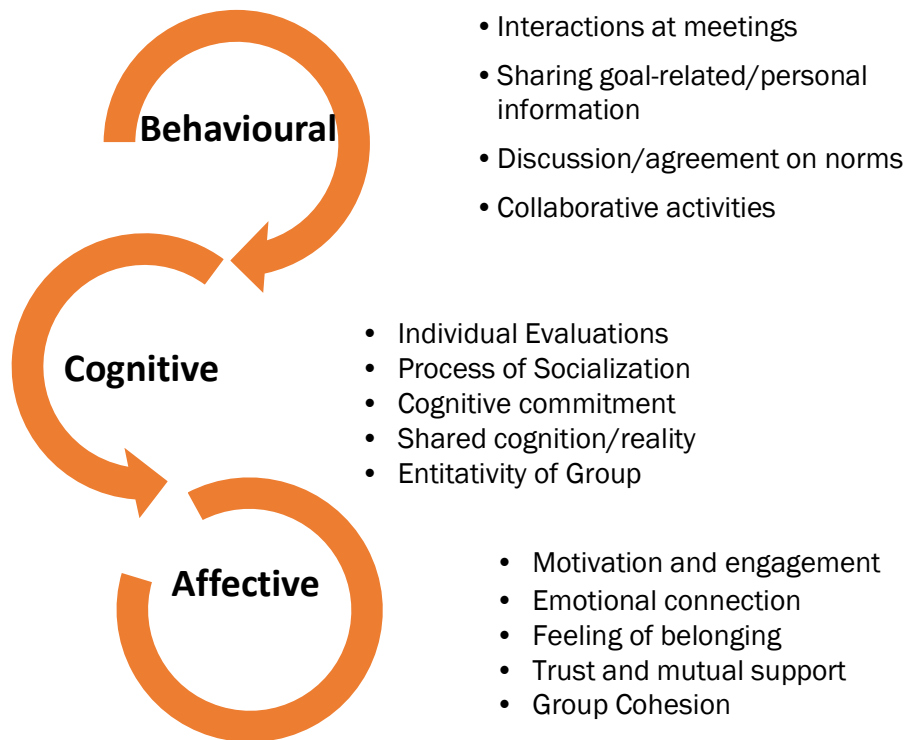
The original model theorised that the development of a commitment to shared goals can potentially produce higher levels of motivation (in certain circumstances). Further, it was proposed that contribution to meetings facilitates the sharing of information while also promoting a greater understanding of the respective views of different members. Shared norms affect the functioning of the mechanism in that they regulate the behaviour of the group members, ensuring that they interact in a respectful way and creating an environment where decisions are jointly made and people can interact without conflict. In the original model, mutual support is conceptualised as a positive feeling of reciprocity created when an individual experiences supportive or helping behaviours within the group, and the mechanism is activated by the interactions between group members when they meet. In the model, each part of the mechanism between a cause and the outcome is outlined as a series of entities engaging in activities.

As discussed above, the concept of (shared) identity can be dimensionalised into three constitutive parts; a cognitive sense of knowing that one is part of a group, an affective part that involves a feeling of belonging to the group, and an evaluative part that suggests that the group is of some importance to the individual (Tajfel, 1974), although other theories substitute the ‘importance’ dimension for a behavioural dimension – particularly in relation to workgroups (Ashmore, Deaux and McLaughlin-Volpe, 2004). These three dimensions form interlinked processes, each of which interacts with each other and activates the mechanism, initiating a process of identification. This is the mechanism that can be said to ‘cause’ the outcome of a shared identity.

The behaviours do not inevitably lead to the cognitive or affective processes, and there may be some groups that perform many of the behaviours without any engagement in the cognitive or affective processes. Their meetings have been described by many interviewees as a 'tick-box exercise'. This is where the local authority, which is required to convene regular meetings, does so, but group members feel that there is no commitment on the part of the local authority, the goals of the group do not have a high priority for the local authority, and no real progress is made towards the goals. The behaviours listed in the model, on their own, will not create a shared identity or a cohesive group. Interactions and information-sharing can be carried out in a perfunctory, routine way or in a way that produces an emotional response from the listeners. Collaboration can involve a modest and short-lived engagement between two partners or an extended, mutually rewarding project that generates enthusiasm and establishes trusting relationships. Linking the model below to the findings from the QCA analysis, the behavioural dimension can be represented by the sharing of information, the cognitive dimension by knowledge of and clarity around the purpose or goals of the group, and the affective dimension by the feeling of trust and mutual support. A feeling that other group members will support the individual member suggests that there is trust and a level of emotional connection between the group members, and this can only be expected to occur in groups where interactions are positive and open and members have evaluated and decided that the purpose of the group is of value to them.

FIGURE 6.1

MODEL OF CAUSAL MECHANISM



6.5.1 Comparison of typical and IIR cases

To probe the causal properties of the QCA solution, it is necessary to determine whether the sufficient term makes a difference to the outcome by making a difference to a causal mechanism. This involves a within-case analysis of typical (TYP) and individually irrelevant cases (IIR) (using the procedure outlined in 5.7.2). The aim of the comparisons is to better understand the mechanisms operating in the cases that have developed a shared identity.

The software has identified the best matching pairs among the typical and individually irrelevant cases, and this section will draw on key informant interviews relating to five typical cases (1AF, 8AF, 13AF, 18HD and 19AF) and five irrelevant cases (3HD, 5HD, 8 HD, 11HD and 14AF), for the solution term GOAL*SUPP to assess whether evidence of the causal mechanism can be found. The cases for GOAL*SUPP are the highest ranked and offer the best comparison, so it can be assumed

that if evidence of the causal mechanism is to be found, it will be evident through in-depth analysis of these cases.

In an ideal SMMR, each of the focal conjuncts should be explored in isolation from the other conjunct(s), identifying the evidence for the existence of the causal mechanism (in the typical cases) and whether the causal mechanism is a difference-maker (looking at the IIR cases) (Robinson, Rutten and Greckhamer, 2019). However, in the mechanism outlined above, the individual conditions or conjuncts cannot be easily isolated from each other. For example, when members are committed to the group's purpose and consistently contribute to the attainment of the goals, they are likely to be highly motivated, which in turn may mean that they are more supportive of other group members. Therefore, signs of the overall mechanism will be discussed, where they can be discerned.

Typical Cases

Survey evidence for the typical cases shows that all five have membership (>0.5) in each of the conditions in the solution term (GOAL*SUPP) and in fact align closely with the original model – having membership in four of the five conditions (shared goals, shared information, mutual support and contribution at meetings) as well as shared identity and subjective effectiveness, but not objective effectiveness. Of the individually irrelevant cases (IIR) two cases (5HD and 8HD) have no membership in any of the conditions in the solution term. One case (3HD) has membership in only one of the conditions (Shared goals) and the final two cases (11HD and 14AF) have membership in two of the conditions in the solution term.

13AF

Previous studies suggest that the mechanism linking shared goals and mutual support starts with an evaluation of the value or 'rewardingness' of the collaboration among members (Moreland and Levine, 2002). Therefore, the first sign of the process that one would expect to observe is some form of evaluation of the members of the group, which can be observed in the following quote from the programme manager in 13AF, when discussing the importance of having a mix of committed members... *"ours wasn't right at the start; I think it is right now...It is key; you have to at least make sure that you have all the relevant organisations involved."* She also evaluated the other group members for their potential contribution to *"a sense of trust and mutual respect...I think that's the basis of any...I firmly believe that's the basis of which any kind of group can*

achieve anything...you would find out very quickly, and I would have found in other things that I would be involved in that if that's not there, then the thing fails, you know, early on."

(13AF_175834)

Evidence of positive emotion, relationships and the impact of positive collaborations was found in comments made by the other interviewee...*"What I've experienced in terms of the working between [her organisation] and the council is that there is fantastic collaboration and it works really well" and "a lot of it is... it's the individuals involved, we're so used to working together now"* 13AF_170423. The impact of cycles of shared goals and positive interactions was remarked on by the programme manager when she noted the change from the former practice of working in 'silos', *"there is a huge, huge benefit...it was so obvious there; the benefit of you knowing people working together with a shared objective rather than people saying, Well, this is my area, this is my territory."*

Both interviewees gave evidence of feeling that other members of the group were supportive and made similar comments about feeling that they could ask others for help. The OPC rep said, *"You have to say that they're very approachable. It wouldn't bother me the least if I knew who the right person was to go to. I would, you know, just be okay to pick up the phone and say, look, I need your help...this has happened..."*

She felt that the Chief Executive of the local authority (who chairs the Alliance) and other members are very supportive of older people. *"I find that they're very keen, very good listeners, very interested in hearing what is being said, very supportive of, very nice, you know, very reasonable...there's no doubt about it they're interested and take on board what we say, you know"*? She felt that her contribution and that of other older people were important to the group because *"it was improving and growing. It probably is improving because of participation by older people feeding into it and that's why it's improving."* and *"I mean the mere fact that a county council is listening to somebody like me, just not like me but other older people and their voice is being heard and...taken on board."* 13AF_170423.

Finally, a comment by the programme manager sums up a core part of the mechanism when regular interactions and engagement at meetings lead to a shared cognition or a shared sense of reality... *"I mean, you think everybody understands your organisation, then you go to meetings, and they could have a completely different way of looking at things. And there's nothing wrong*

with that either...because you can tease that out then...you know, if there's mutual trust there you can put your point of view across but you can also see that maybe there is a different way of looking at this and maybe I don't have the only...But that only happens if there's a good dynamic and there is that mutual trust and that doesn't happen overnight." 13AF_175834.

Case 19AF

Three members of this group were interviewed: the programme manager, a public sector manager and a person from the Older Person's Council (OPC) There was agreement that the group worked well together, shared goals, shared information, and was generally supportive of each other. From a behavioural perspective, interviewees agreed that meetings were well attended and information was freely shared. However, the representative from the public sector agency had only attended a small number of online meetings so she acknowledged that her experience was limited and her contributions were tentative. *"I can't say to what degree, but I do get a sense of that there is a coming together and people are sharing information, there is a really strong sense of wanting to do good for the community"* 19AF_091114. The OPC representative was relatively positive in her comments *"I think there is a reasonable...I think there is a sharing of information, obviously, sometimes planning ahead within these organisations, you don't hear about that, maybe until it's happened at times."* She also commented that the communication between members was not only a process of information sharing, *"Absolutely, I have to say it...It's very sharing, we're listening... I mean, there's an opportunity of picking up on someone's reports... I feel very confident in there anyway."* 19AF_112712. The third interviewee felt that the meetings were efficient and structured but still provided good opportunities for information-sharing *"It's well organised in that the communications are provided well in advance. It's quite respectful, based on my experience in terms of input and engagement. I think people are given an opportunity to speak, but it is quite a structured agenda."* 19AF_091114

Interviewees were also positive about the level of agreement and commitment to the goals: *"So I think that's very much a shared understanding and now again...just from my own perspective and reflections on the mission, I think it very much a shared understanding that the common goal is improving quality of life"* 19AF_091114. The programme manager agreed and highlighted the benefit of a constant evaluation of the group: *"There's pretty good [shared goals]. Again, it's developed over the years because I think...the key is to make sure that we get the right people from the [different organisations] in our alliance."* 19AF_103217

Members of the group have developed good relationships that the programme manager feels are based on trust: *"100 percent between all of us [trust and mutual support], and it's a very strong kind of... there'd be a lot of trust there. You know, all our agencies work really well together, and with all the individuals involved, I think it's really, really good."* This, again, was echoed by other interviewees: *"I would say there's quite strong relationships there. You can see that members are very familiar with each other's ways of working and that there has been a very positive partnership working previously."* Her sense was that this crossed all organisations and sectors."

19AF_091114 The OPC rep was similarly positive about relationships: *"they're quite informal in terms of the personal relationships, it'd be quite a friendly kind of committee so I think the norm is kind of they'd be very friendly towards each other, it's a very positive kind of engagement"*

19AF_112712

Case 1AF

As mentioned above, 1AF has high membership in all condition sets other than shared norms and membership in both shared identity and subjective effectiveness. However, the interviews do not offer strong evidence of the mechanism outlined above. The programme manager was appointed to her role just as the COVID-19 lockdowns were introduced in 2020 and she had therefore never met the members of the Alliance at a face-to-face meeting. As was common in many of the Alliances, priorities changed during the pandemic, and the programme manager was required to develop new initiatives for older people as they were restricted to remaining in their houses during the lockdown. As a result of these changed priorities, she felt that the goal agreement had been lost over the previous 12 to 18 months. *"...that's me new coming into it, that could be my own, as the programme coordinator's, lack of direction maybe...but I know they had different priorities. I know even from the lack of attendance there was at our alliance meetings."*

1AF_100502. However, the group had just completed the development of a new local strategy, and the manager felt that this process had offered the group an opportunity to refocus their efforts. She felt that this had led to an increase in attendance, as at the most recent meeting it had risen from as low as 30% during the pandemic to 75% attendance.

Both interviewees agreed that members of the 1AF Alliance discuss matters openly at their meetings; one mentioned that there is plenty of interaction and questions are asked during the meetings and that matters can be raised even if they are not on the agenda. This suggests that information is freely shared among the members.

The second interviewee, representing the OPC, was very enthusiastic about the group and felt it was very effective, particularly during the lockdowns when subgroups were developed from Alliance members to provide additional support to older people, *“it was very, very interesting, very well organised...and we all learnt a lot, met one another, we know where to go when we've got a problem”* 1AF_142651. However, she stressed that relationships had always been good; *“nothing changed, only that you know, we got involved with other things in that through it, it was all hands to the deck”*. This interviewee also felt that there was good commitment to the group; meetings had always been well-attended, and she felt supported by other members; *“If I had a problem, I would bring it to the alliance because I know somebody there would be able to help”* 1AF_142651.

When asked about relationships between members of the group and the extent to which they were mutually supportive, she felt that she could not answer, *“I'm not sure I could answer that I haven't when I haven't met them physically, I can't say I know an awful lot right about them, I know I speak to one or two on the phone but...”*

In conclusion, while the two members differed in their perspectives on the group, the programme manager acknowledged that her lack of experience may have impaired her ability to judge. The second interviewee had spent many years in the Alliance, and her evidence is more conclusive.

8AF

Of the five typical cases (based on the survey data) 8AF is the most closely aligned with the original model, having high membership in each of the condition sets and also in the three outcomes (shared identity, subjective effectiveness, and objective effectiveness). The programme manager agreed that the group was aware of and shared goals: *“I think so, because they're all together for the last nearly 10 years, and they understand where they're coming from and what they're trying to achieve.”* 8AF_150625 Both interviewees described a group that had some very committed and active members and others who were less engaged. The programme manager listed three different members of the group and described each as *“very passionate about it”* and mentioned that these three members were in regular contact with her and with the other ‘committed’ members, regularly seeking new ways to contribute to the goals. However, she felt that other organisations showed less engagement, but they continued to attend and report on their activities because their organisational goals happened to coincide with those of the group;

“...really some of them would be nearly a tick-box, like they're doing this anyway, even if there wasn't an Age Friendly programme in the county” 8AF_150625

The second interviewee believes that overall, there is a lack of shared goals among the members of the Age Friendly Alliance. According to the interviewee, there are “fantastic organizations and individuals in the Alliance” who are very passionate about their work with older people. They name these people and their organisations and mention that they have collaborated and contacted these agencies frequently to reach out to older persons and to provide assistance. However, this interviewee felt there was a lack of enthusiasm or action from the local authority and that the goal of making the world a better place for older people was not felt strongly by all members of the alliance. Overall, while there seems to be passion and enthusiasm among certain members of the group, there are varying levels of engagement and commitment among others. The fact that some, but not all, members are passionate and enthusiastic does not negate the existence of the mechanism. It simply suggests that it is not always easy for every member of the group to experience the same level of engagement in the work of the group. It appeared from their interviewees that the two interviewees in this case had a difficult relationship. One in particular (interview 8AF142920) said that their evidence was “*coming with a health warning*” due to some antipathy between the interviewee and the programme manager.

18HD

The survey data suggests that 18HD would be considered ‘barely typical’ – having membership with only shared goals, mutual support, and shared identity. Its membership in subjective effectiveness was just over the 0.5 cross-over point between non-membership and membership. Based on the interview data, it is difficult to determine whether the 18HD Steering Group is committed to achieving its goals. The programme manager mentioned that in the years since she took over the role, she was initially unable to prioritise the group’s work due to staff changes and other organisational priorities. While the COVID-19 pandemic hindered their progress, in 2020, they began working on a disability plan and created an action plan with timelines, targets, and responsible agencies for each of the actions. She feels that there is a ‘reasonable buy-in’ from the group members in terms of their commitment to the goals. They have worked together to identify issues, set actions, and create an action plan with timelines and targets, and the process of working together to develop this strategy and action plan will increase the active involvement of the group members and increase ‘buy-in’. By assigning responsibility to the relevant agencies for

the different actions, the programme manager felt that this would increase their commitment to working together to deliver the agreed goals.

The second interviewee represents a service provider for people with disabilities, and she has been in the group for about three years. She feels that there is a general acceptance among the group members that the goals are right and that people are supportive of those goals. However, they also point out that while people attend meetings and show willingness to provide housing for all individuals with disabilities, the actual goals themselves are huge, and there seems to be a disjointed and disconnected nature among the participants. This indicates that while there is a willingness to support the goals, as evidenced by their commitment to attending meetings and providing input for strategies, there are challenges in aligning everyone's perspectives and strategies to achieve those goals effectively.

She felt that the group could more effectively address the needs of people with a disability by including more individuals with lived experience around the table and facilitating their meaningful participation. She argued that professional stakeholders would benefit from hearing directly from grassroots organisations and individuals to better understand their perspectives and needs. Overall, the speaker felt there was a 'disconnect' between different stakeholders. She felt that the group had not developed a shared identity *"I think I say no because like there's a lack of that common understanding, that sense of belonging, that every person's opinion is valuable around the table and every person belongs to be there, no matter your agenda, no matter your values, or how they're driven in terms of whether you're paid to sit around the table... [or not]"*.

18HD_111026

The local authority interviewee acknowledges that relationships within the group are not as strong as they could be, particularly between the NGOs and the council, due to changes in membership and missed meetings caused by Covid-19. *"If there's a problem, people know who to go to; they know who to contact. If there's difficulties, we can work it through...but I'd say if you were to ask the NGOs, they might say they have probably had a different experience."*

The programme manager was concerned that in the absence of face-to-face meetings, it was difficult to build relationships between members. She felt that Zoom meetings, while facilitating an exchange of information, were not ideal for engagement and interaction. Overall, while the group had cognitive awareness of and commitment to the goals, there was no evidence of the

affective dimension. While the programme manager was efficient and eager to achieve the targets the group had set, there was no evidence from the interviews that the group had developed initiative or cohesion as a group.

Irrelevant cases – 14 AF

This network had been in existence for about five years at the time of the interview, and in that time the membership had remained relatively consistent, although the programme manager acknowledged that things had changed during COVID. Fewer meetings took place, and many of the more senior members were diverted to other responsibilities to be replaced by more junior and operationally focused staff. The programme manager had returned to the post after a similar reassignment during the COVID lockdown period and intended to revitalise the group and seek to ensure that the more senior people returned to the Alliance.

In comparison to the typical cases, the survey data indicates that respondents in 14AF do not feel that the group shares goals. The case had low membership in shared goals, shared norms, and contribution to meetings, as well as in shared identity, subjective effectiveness, and objective effectiveness. The programme manager acknowledged that the group had experienced some setbacks in their progress towards the implementation of the goals. Specifically, they mentioned that due to the COVID-19 pandemic, the work of the Age Friendly Programme went into a maintenance phase, and the virtual environment of meetings during the pandemic made it harder to involve everyone and hampered communication and engagement.

Despite these setbacks, the manager expressed a desire to reinvigorate the programme and increase interest and participation among stakeholders. *“So, there’s a little bit there to be worked on...And then there’s other kind of issues where we’ve had new organisations come in and other ones that have kind of, I suppose, lost interest a little bit and have seen their targets move elsewhere. But more significantly, the whole focus was shifted away from everything during Covid...now it’s the case of trying to reinvigorate that and get the interest back.”*

While acknowledging that relationships between group members are good and that there was a good level of cooperation between organisations in the Alliance, the programme manager expressed some frustration with the availability of resources...*“I think they all see this as something very positive, you know, and sometimes it’s because it’s an add on to people’s day job as such and it can be seen slightly as an inconvenience, but that’s a temporary phenomenon*

because of workload and issues that exist there within the core of their jobs". The fact that their alliance was not as well-resourced as many of the other groups became obvious to their members when they were in contact with other groups on a national basis... "At the end of the day...like everything, we're very resource constrained. We can only do as much as we can, given what we have available to us, and...they're coming back and saying, well, why can't we do this? Why can't we do that?"

In conclusion, the evidence suggests that the 'maintenance phase' that the group experienced during the pandemic impacted the behavioural process, with fewer interactions, less engagement, and modest levels of collaboration. However, the interview did not produce sufficient data to judge whether cognitive or affective processes were also impacted. The manager had signalled in advance that their time was limited and that the interview would have to be kept to 30 minutes due to other commitments. Therefore, it cannot be conclusively ascertained from this evidence whether the conjunction (shared goals and mutual support) is a difference-maker for the outcome of shared identity (or subjective effectiveness).

Case 3HD

The case 3HD provides a better comparison. The survey data shows that members of the group do not believe the group has developed a shared identity. It also scores below the 0.5 threshold for membership, shared information, group norms, contribution at meetings, and mutual support. It is marginally above the 0.5 threshold for membership in the set of cases with shared goals. However, it scores well above the threshold for objective effectiveness.

Six interviews were carried out with group members, and in general (with the exception of one interviewee), members expressed consistent views. It seems possible from the analysis of the inconsistent interview that the interviewee may have been discussing her membership in the subgroups rather than the main group, which would account for the difference between her view and that of the other members. The consensus among interviewees is that the group is not very collaborative. The programme manager and another local authority colleague participated in the interview together, and both agreed that the group was challenging to manage. The programme manager expressed frustration with the lack of collaboration between members of the group. From a behavioural perspective, she suggested that the members did not share goals, and many are "minding their own little corner" and there is no open sharing of information among them.

The managers also mention that a particular member had become frustrated in trying to get a response from some of the members, and another member of a different organisation is described as having a self-centred mindset and not looking at the wider community or the impact of their actions. They mention that this member and the organisation they represent are only thinking about their own needs and funding.

From an emotional perspective, one local authority staff member stated that she felt there was *“a lack of energy on those steering committee groups...and... ‘It seems very much...It's left to the local authority; we're just bricks and mortar. That's all we can do.’* This suggests that there may be a lack of consideration for the overall goals of the group among some of the other members.

In the HD cases, the sharing of information was often a formal process involving “data sharing type agreements” as one interviewee described it... *“within mental health, there is a data-sharing agreement that can be put in place, but there's kind of assessments and things we need to do first”* 3HD_143338. This perception that a formal procedure had to be implemented may have hindered the free flow of information between members of the HD programme. This concern was alluded to by a number of interviewees who discussed legal concerns around the sharing of information, including concerns related to GDPR and data protection. Some individuals highlighted the need for clarification and reassurance regarding what information can be shared within their organisations, showing that this fear has acted as a barrier to effective communication and collaboration in the HD cases *“I think some of it could be fear around GDPR and data protection, something around that that would reassure people around what can be shared and what can be worked on, I think people sometimes are so fearful of sharing information that they...they're just nearly afraid to share any information... They're so used to working in silos. So that had to take a bit of work as well about, you know, actually, we're all trying to achieve the same objective here.”* 3HD_143338

Another local authority manager felt that there was insufficient engagement among the members of the group, and members did not share or even have a clear idea of what the goals were. When he asked what he felt was missing, he said, *“Good participation, good two-way participation, and not the local authorities speaking for 90% of the meeting. And maybe that's our fault in that we draught the agenda and issue the documentation. And sometimes it defaults back to the local authority to do all the talking here. But I think the best committees are those where there is that full engagement.”*. 3HD_120157 He also discussed frustrations that arise among members of the

group, *“the disability groups that attend...I think there's perhaps a lack of, I won't say purpose, but a lack of clarity to some extent about what it is they are meant to be doing.”*. 3HD_120157 This feeling was echoed by a representative of an approved housing body who expressed concern about the role of housing bodies in the disability steering group. They felt that the group was primarily led by disability groups and focused on strategy, while the practicality and delivery of housing units were missing, and they were unsure about their own role in the group.

Another interviewee, representing a disability service-provider organisation, expressed uncertainty about the purpose of the group. She mentioned that if the goal of the group was to develop a strategy and put it on paper, then it had achieved that. However, she also expressed uncertainty about her role and the practical aspect of delivering housing, which she felt was missing from the group's focus. She did not appear to have developed relationships with any of the other members of the group. *“I suppose look it's hard to tell because you're on...you're on the screen ... so you know when you're kind of in a meeting room you kind of see who sits next to each other and if there's any kind of cliques...a lot of the people that are on the call, they may know each other a lot better than I would know them”*. The interviewee does not think that the group have developed a shared identity *“I think it might be a bit aspirational, because I don't know how easy that is to achieve, like, unless it's, I think, a lot more collaborative. At the moment, I think it's not very cohesive. Everybody is coming at it from their own little corner...”*

As mentioned above, one interviewee described a group that was very different from that of the other interviewees. She emphasised the benefits of collaboration and inclusive strategies, indicating a positive level of collaboration among the group members... *“Very much so, like I would see very strong ties in particular with the housing allocations team in XXXX and the social work, the way we work, the way we communicate with one another. We would have each other's mobile numbers now at this stage where we can run stuff by each other or where problems popped up”*. These views are at odds with the lack of cohesion, lack of energy, and uncertainty of purpose, as described by the other five interviewees. Overall, based on the available evidence, the level of shared goals and mutual support among the group members appears to be characterised more by perceptions of individual agendas and varying levels of trust than by unity of purpose and mutual support. While the meetings have been held and members have continued to interact, there is no evidence of any part of the cognitive or affective processes outlined above.

Case 5HD

Four interviews were carried out with two local authority managers, a public sector service provider, and one non-profit service provider. The programme manager was reasonably enthusiastic about the work of the steering group, although they admitted that due to several issues, the group had not met for almost a year due to staffing issues and Covid-19. His overall assessment of the group's effectiveness was that they were not where he wanted them to be, but he argued that the group was in a process of change and he was hopeful that it could improve. The other council manager talked about the lack of a clear purpose or identity in the group; she felt that the membership was mixed between people at an operations level and those at a strategic level. When the local strategy was being prepared, the local authority manager raised a problem that was common to many of the groups, lack of input from other members of the group. She did eventually get some input from a minority of members, but she felt that the group needed to be more engaged. Her overall assessment was that the group had the potential to be very effective but not in their present form *"I think there's a lot of potential there. And I think that if the right people, if the right structure is there for the right people to engage, and it has to be useful for them, it has to be meaningful for people. If it's just because we have to have four meetings a year or we get in trouble with the housing agency, that's a different focus then."*

5HD_101940

The non-profit service provider also felt that the group was not achieving its purpose and stressed the importance of a shared goal: *"if we have a specific purpose, and there is a specific goal at the end of the year in relation to allocating properties to people with a disability...if we're all working to that goal and we're all trying to deal with that, then I think there would be more kind of teamwork and working together because we have a purpose and we have a goal at the end of it"*.

5HD_105736 One interviewee from the local authority expressed hope that the group would develop clear goals: *"Maybe the local plan now will focus the group...up to that, I don't, I couldn't see what we were working at...I found people were just talking about local issues like ad hoc, just raising things that were topical at that moment. They certainly weren't working toward a strategic plan that I could get anyway."* 5HD_101940

The programme manager had a clear view of how the group should work, but because of COVID-19 and the diversion of personnel, their progress had been slow. Acknowledging that some relationships had been built, the manager also highlighted difficulties that had arisen between the local council and a specific group of network members: *"because so much is based on trust...they*

need to trust us and we need to trust them...You're putting yourself out there and you're just trusting that somebody is being upfront and honest. But I've called out [named group] who've lied, blatantly lied to me...I'm going...you're done." 5HD_120735.

Another member from a service provider organisation echoed the programme manager's views about relationships and as a long-standing member of the Steering group, they had succeeded in establishing good working relationships. *"So, it's about building relationships...the people that work in the [named] Council now know me very well, and the people who work in the different housing associations also know me very well. Let's say if I make a call or if I need to find out something, I can find that out fairly easily because the people in the Council will respond to me because they know who I am."* 5HD_105736.

Through their work with the steering group, this member developed a shared reality with others in the group: *"it does give you, I suppose, an inside idea of what is wanted [by the Local Authority], ...what sort of regulations are in place and...it just gives you an easier way of navigating the system"*. 5HD_105736 This shared understanding was not confined to the local authority; *"also, in the steering group, I can speak to, let's say, the likes of [named organisations] and the other charities and speak to them and they will tell me what they've gone through, who they're trying to place, that sort of stuff. And you can get a lot of co-production out of that."*.

However, others did not share the experience of this interviewee. One said that the group members did not share information very freely: *"there's not a lot of talk at those meetings...The council does most of the talking."* 5HD_143243 Another expressed a similar view: *"they meet, the council come along, and they give an update, usually on the housing they've delivered...That's kind of it then really, there'll be a kind of general discussion. I haven't found it that productive, to be completely honest."*.

In addition, the group membership was not stable, some organisations sent different people each time, others attend occasionally but did not engage; and many people did not know each other. *"Just people joining all the time that you don't know. Because the membership...it does fluctuate, you get people joining who haven't been there before and some [named organisation] they just don't attend. They don't see it...He just doesn't see the value to it, he thought he's going to be going to a meeting where very specific actionable stuff was going to be discussed. And that didn't happen, so he just gave up on it."* 5HD_143243. However, this interviewee acknowledged that

when the local strategy was revised, members of the group shared information and communicated openly, and this was one of the few positive experiences he had with the group.

Case 11HD

The third group, 11HD, presents a more complex comparison. Two interviews were conducted – one with the local authority coordinator and one with a disabled person. When the new local authority coordinator was appointed, the group had not met for about 18 months or had met very intermittently during that period. The new local authority coordinator is very committed to collaborative work and to helping the group understand the needs of disabled people. She called a meeting, but very few people attended, and this only changed when the group was required to revise the existing strategy. After a couple of years, she now feels that the group is more engaged and interested in achieving the goals they have committed to.

The second interviewee had been a member for longer and was more negative about the group's effectiveness, *"I think maybe because of that there's a lack of continuity about it...and I don't know; I suppose you feel a bit, you know... powerless."* She agreed with the other interviewee that members of the group had become more engaged when they were involved in developing the new strategy. She felt that the group still lacked the necessary engagement from key stakeholders and needed to become more collaborative *"I feel these steering groups need to be more robust ... to make a difference... and to do what they're supposed to do. And I feel that there needs to be more buy-in; there needs to be more people with a disability with lived experience at the table...And there needs to be a collaborative approach."* 11HD_135957.

Evidence from the programme manager suggests that the group is building from a low base, and when she came into the job, the group had not met for more than a year. She spoke about the considerable efforts she made to get members of the group to engage in the work of the group, as initially, there was limited attendance from the key decision-makers in meetings. However, she was determined to build relationships and started with those who were most responsive to her efforts—the social workers on the ground—and she succeeded in developing a collaborative approach with them. When the group was required to develop the local strategy, the programme manager did not find it easy to gather the information from the one key public sector organisation and encountered challenges in getting their full engagement. She personally contacted each of the relevant individuals, explaining the goals and needs of the project. Gradually, she managed to

generate more commitment and involvement from the public sector agency and other key agencies. She also sought out the go-to person from the disability network to include the lived experience perspective in the group. Overall, her efforts seemed to have paid off, as she feels that she successfully developed engagement and collaboration within the group by building relationships, emphasising the importance of each member's contribution, and persistently communicating the project's goals and needs *"I said, I can't write your piece, I don't work on the HSE; I wouldn't know what to write. And I said to the 'lived experience', I can't write your piece because you're here to give us your knowledge and to make us understand how to make...what we need to do for people with a disability, so I suppose when I made it that important to each of them, that it wasn't going to be done without them."* She explained the approach to collaborative work that she had used in her previous role *"If we needed to get something done, it wasn't to tell somebody how to do it; it was to listen to them, listen to everything they had to say, and then start...how about if we looked at doing something different? And I suppose that's the exact same approach that I took... It's a concerted effort, it's being interested, it's seeing where other people are coming from, and...you really need to appreciate the hoops that they have to go through to help you."* 11HD_093751

The other interviewee, representing a service-provider organisation, expressed concern that attendance at meetings of the Housing and Disability Steering Group was not good. On many occasions, she stated that there were only four or five people attending the meetings, and the group was particularly hampered by the lack of engagement by one key stakeholder throughout the meetings. She also believes that there should be more people with a disability and lived experience at the table to share their knowledge and make a difference. Because the meetings were not well attended, the discussion of issues was limited, and the meetings were short. However, she acknowledges that those who do attend are committed to the group. In conclusion, from a behavioural perspective, the evidence suggests that the group has not always had regular interactions. As a result, the group is slowly starting to engage and collaborate, and goal-related information is now being shared. The programme manager is experienced and determined to achieve greater cohesion and emotional connection within the group. As revealed by her parting comment about the future of the group, she believes that its success is linked to the development of relationships: *"it's making those connections, the personal touch, it's always about the personal touch, we are in Ireland and it's not going to change"*. 11HD_093751

8HD

The steering group coordinator was unavailable for interviews, and the interviews were carried out with a disabled person and with a service provider. The service provider had only joined the group within a year of the interview, and all of their time on the group was during COVID lockdowns. The interviewee described the meetings as a series of isolated presentations that were “formal and council-ish”. As a new member of the group, he would have appreciated a less formal introduction to the group or a chance to get to know people around the table. *“I think there'd be great benefit in maybe just getting to know each other a bit more, because I don't know all the people that well, but I suppose at the meeting...there wouldn't be a lot of interaction between the different agencies.”* 8HD_100509 While stressing that he was not being critical of the coordinator, he suggested that there were ways of improving interactions between different organisations, even in an online setting, *“there can be a lot more interaction going on...There does need to be a leader, a chair, but I suppose it's about maybe engaging more with the people, with the representative organisations.”*. 8HD_100509

His sense was that the group was supportive but still developing as a group, even though it had been in existence for a while. When he called on the coordinator for support on a particular aspect of his work, he found that they were immediately responsive, and something that had been delayed by another council employee was immediately sorted out.

The second interviewee was no longer a member of the group when the interview took place but had been part of the group for about a year. Her experience with attendance at the meeting was not positive, particularly at the start. She felt that, as a person with a lived experience of the difficulties of trying to look for a house and getting on the waiting list, she hoped to be able to make that experience better for others coming behind her. When asked if she felt that others on the group shared her goals she was very clear that, in her view, none of the people around the table did so... *“Em, none of them around the table...[share her goals] Sometimes you'd say a point and they'd actually come back in front of other people and say, "that girl is wrong, she doesn't know what she's talking about".* This experience made her reluctant to contribute or to engage with others in the group. She felt intimidated by the council staff. *“these council people are so high up; they're more important than the individual person...you kind of go back, you go a bit quiet and you don't think your point is valid as say maybe someone who's working in the area.”*

8HD_103333.

She felt that many of the people at the meeting were not engaged and regularly had not read briefing documents, which led to the meeting being given over to taking people through the document. The lack of any form of induction made it more difficult to overcome her inexperience in participating in meetings *"I literally got an email to say I was part of it, and I turned up the first morning, and I was just thrown straight into it. There were no introductions, and I came away from the meeting and said, "What have I got into? What's going on here? Because literally I didn't know who was who, when I could speak, or how I could speak."* 8HD_103333.

Her sense was that the people who worked in organisations might have established relationships but she and her colleague with 'lived experience' were the outsiders, *"it's the different organizations that maybe work together...like they know each other and they'd be meeting for coffee or that kind of thing so they have a relationship but then the ones who are outside like me or the two new people are coming in...because we're not part of an organization"* 8HD_103333. However, despite the difficult start, she did feel that the group was beginning to improve, and a newly appointed programme manager was instrumental in bringing about the change: *"I think they're getting there...yeah...I think we're not...they're not there yet but I think they're starting to get there"*.

TABLE 6.1 TYPICAL VS IIR COMPARISON FOR CAUSAL INFERENCE

Typical	Summary of evidence	IIR	Summary of evidence
1AF	Mixed evidence – positive accounts of mutual support from one interviewee	3HD	Consensus among the majority that there was limited goal-agreement or cohesion.
8AF	Mixed group, some evidence of behavioural, cognitive and affective among a strong core group, described as being passionate and enthusiastic.	5HD	No evidence of affective aspects of the mechanism displayed by the group. One long-standing member had established relationships but membership fluctuates and meetings were intermittent during the pandemic lockdowns
19AF	Evidence of respectful interactions, strong relationships and supportive members suggesting behavioural, cognitive and affective parts of the mechanism	8HD	Negative views on group interactions and joint purpose. Minimal sharing of information, no evidence of relationships between members.
13AF	Positive views expressed by both interviewees. Evidence of behavioural, cognitive and affective part of mechanism	11HD	Agreement to relationship building is needed to increase engagement. Differing views between on progress had been made, no evidence of affective aspects of the mechanism
18HD	Evidence of behavioural and possibly the beginnings of cognitive building of a group, no evidence of affective aspects of the mechanism	14AF	Limited behavioural aspects of the mechanism due to infrequent meetings and limited commitment to goals. The group need to renew their sense of purpose and regain commitment. No evidence of cognitive or affective parts of the mechanism

In conclusion, the qualitative data provides some support for the existence of the mechanism, but not all typical cases provide strong evidence. It was acknowledged across many interviews that building trust and developing relationships takes time and consistent effort. Groups that were led

by a recently appointed programme manager, particularly one that had not had any face-to-face interactions with the group, did not provide strong evidence. The managers were unable to judge whether the group members shared goals, developed relationships, or shared an identity. The data also suggests that successful collaborative groups may have a core group of strongly committed and enthusiastic members as well as some less engaged members. Perhaps the most unambiguous evidence comes from the IIR cases. Each of the cases consistently showed an absence of cognitive and affective aspects of the mechanism. The interviewees were generally in agreement about what was missing and talked about a lack of purpose or a level of energy or engagement among network members. These are all consistent with the proposed mechanism.

6.6 Within-case Analysis (SMMR)

To probe the causal properties of a proposed mechanism (M), the researcher must determine whether a sufficient term is causal, or, in other words, whether the term is a difference-maker not only for the outcome but also for the mechanism that connects the two. As outlined above, the proposed mechanism linking the conditions in the model to shared identity is a three-dimensional series of interlinked steps or processes comprised of behavioural, cognitive, and affective factors. To assess whether the mechanism has been 'triggered', these factors should be evident in the comments made by network members in their qualitative interviews.

Having considered the arguments put forward by various scholars on the most suitable solution (parsimonious, intermediate or complex) to use for causal inference (See section 3.11.6), and particularly that of Haesebrouck (2021) who argued that researchers should take a comprehensive approach and not focus on only one solution type when they interpret the results of their QCA, this study will initially focus on the conjunction that is common to each of the solutions: GOAL*SUPP. This is the pathway that has produced the highest-ranking pairs for within-case comparison.

This section will first compare typical cases and individually irrelevant cases as identified by the SMMR procedure to ascertain whether shared goals and mutual support are a difference-maker in the outcome and whether they trigger the mechanism through the interlinked and reinforcing steps leading from a behaviour through cognitive processes to an affective or emotional response. Following the comparison of typical and individually irrelevant cases, a comparison will be made

between the typical cases to establish whether the mechanism is stable and is represented equally across more than one typical case. Members of the group assess each other for their likely contribution to achieving goals, either individual or role-based, and mutual support has been conceptualised in this study as an indicator of trust (See section 3.9.6).

6.6.1 Comparison between Typical cases

To identify whether the mechanism is potentially generalizable across cases, it is necessary to determine whether there is evidence of the mechanism existing across a number of typical cases. The “smmr()” function is used to match typical cases with barely typical cases to assess the regularity of a mechanism in comparative SMMR. This process involves identifying the best-matching pair of two typical cases, where one case is the most typical and the other is a barely typical case. By comparing these two cases, researchers can evaluate whether the mechanism being studied operates consistently across all typical cases. The output of the analysis indicates the degree of match between the most typical case and the barely typical case, which provides an indication of the regularity of the mechanism under investigation.

This approach allows for a systematic examination of the way a mechanism behaves across different types of cases, thereby enhancing the understanding of causal relationships. The cases to be compared include many of the cases described above; 13AF, 1AF, and 19AF, to be compared with 8AF, 1AF, and 18HD. In the table below, the column ‘Best’ suggests that 13AF and 18HD represent the best cases for comparison.

FIGURE 6.2 TYPICAL CASES FOR COMPARISON

TYP1	TYP2	UniqCov	Best
13AF	18HD	Both	0.75
1AF	18HD	Both	1.19
13AF	1AF	Both	1.28
13AF	8AF	Typ1	1.21
19AF	18HD	Typ2	0.79

As discussed above, interviewees from 13AF offer a positive assessment of the group, highlighting the growing sense of belonging, mutual respect, and shared identity within the alliance. The speakers believe that the group has developed a good dynamic over time, characterised by trust, respect, and a focus on the message that needs to be conveyed. They acknowledge that most of the group members show commitment and are engaged in various initiatives aimed at supporting older individuals in Longford County. The voices of older people are considered central to the discussions, and the group aims to incorporate their needs, wants, and concerns into their planning and decision-making. The programme manager expressed the sense of personal fulfilment and achievement she derives from the work they do together. She emphasises the satisfaction she feels when the group is able to achieve tangible outcomes, such as age-friendly parking improvements, and she receives positive feedback from older individuals through their representatives in the council. It is clear from the interviews that both interviewees have positive feelings because of their interactions and collaborations with others in the group. Additionally, both highlight a growing feeling of belonging within the group, highlighting the positive interactions and support received from various members, including professionals and politicians, and attributing the success in achieving goals to these developments.

The group 18HD, in comparison, appears to be a group in transition. When the new programme manager took over, the group had not met frequently, and when they did, by the programme manager's own admission, the meetings were functional but not very focused or structured and were mainly focused on a report from the local authority on housing allocations. However, over the recent past, the manager has put a greater emphasis on developing a common template for strategy and action plans, seeking a commitment from members to work together towards common goals, greater collaboration, and information sharing among stakeholders, and she feels it has now transitioned to a structured approach focusing on housing delivery, social care supports, disability grants, and other initiatives. In terms of goal agreement, the group could be said to be "at an early stage", relationships between the public sector organisations are described as "reasonably good" but with the non-profit organisations, they are "not as strong as it could be". However, the programme manager was clear that if network members had a problem, they "know who to go to, they know who to contact" which suggests that she believes there is a willingness to offer support to each other. From the perspective of one of the representatives of the non-profit sector, her interview suggests that she did not feel a strong sense of belonging and,

although she had made a small contribution to it, appeared surprised when “all of a sudden you can see this housing strategy that appears”. At the time of the interview, both interviewees had a sense that the group could be more collaborative or cohesive, but both also agreed that infrequent online meetings and inconsistent membership were largely responsible for the disconnect that one member described.

It is difficult to conclude from the evidence presented in this comparison that both groups showed evidence of the mechanism when the two groups were clearly at different stages of development and were emerging from a period of exclusively online meetings.

Comparing this group with 19AF, the contrast is again apparent. As outlined in the previous section, the interviews highlight the collaborative efforts and positive partnership working between members of the alliance. Interviewees are clear that strong relationships have developed among the members, indicating that they are familiar with each other’s ways of working and have engaged in partnership activities previously. However, the group had not always been successful, and the programme manager spoke about feeling that the group had gone a bit ‘stale’ in her words. To address these perceived issues, she mentioned that they revamped the alliance by adding new members and refocusing the meetings to give them a clear purpose and direction. This overhaul coincided with the consultation for a new strategy and the addition of new members such as the senior planner, senior engineer and libraries. The manager expressed the importance of having a good network and focusing on the overall blend of people in the group. “See, I’ve worked for the local authority for 20 years, so I just know people. I worked in planning, and I was able to get the senior planner on board because I knew him personally. If somebody else had asked, I don’t know. I think there is a lot in that as well, in terms of, I suppose, networking and using people that you know. But, you know, I suppose it is key; you have to at least make sure that you have all the relevant organisations involved. Overall, the revamping process seems to have worked well, strengthening relationships, improving communication, and enhancing the impact of the alliance on older people’s lives. In this group, there is evidence that members collaborate offline, communicating regularly and working together to resolve issues that arise. Trust, mutual support, and respect are mentioned as key components of the relationships within the Alliance.

In conclusion, the two ‘best’ typical cases show evidence of the three dimensions of the mechanism; they share information and discuss issues openly (behavioural). The members have a

clear understanding of the goals, as well as a sense of purpose and a commitment to the goals (cognitive) that they are actively working towards (behavioural). Finally, network members have a feeling of trust and support for each other, and some at least have a sense of personal achievement. The third group has also developed an awareness of the goals, and the manager has sought to develop a sense of responsibility for those goals, but at the time of the interview, it was not possible to say whether the group would continue to evolve towards a sense of entitativity or 'groupness' that is part of the process of identification.

6.7 Emerging Themes

The selected conditions in the model for this research were identified based on 1) the theorised relationship between the conditions and effectiveness (as outlined in Section 2.2 and 2.3) and 2) on the assumption that many of the determinants of effectiveness identified in the thematic review can be 'summarised' by more proximate determinants (as discussed in section 2.7).

The QCA SMMR technique (described in Section 6.6), calls for the researcher to compare specially selected cases to explore the existence of a mechanism. To carry out the comparison, the researcher focuses on a narrow range of issues and factors. However, it is also important to discuss and consider the implication of themes emerging from the qualitative interviews. This allows for a deeper and more nuanced understanding of the network dynamics, potentially highlighting complexities and subtleties that were not identified in the original model. This also helps avoid an overly-rigid focus on the predefined research framework as well as any perception of confirmation bias.

Leadership

Leadership within governance networks, particularly the role of the council, emerges as a significant theme impacting the dynamics and effectiveness of the collaboration. Evidence from the interviews suggests that a committed leader can be a strong driver of collaboration through an increase in the external legitimacy of the network. For example, one interviewee highlighted the crucial role of the leader in developing effective collaboration, engagement and increased attendance, with one participant noting that a chief executive's involvement significantly increased participation: "We had the public realm training...I'll be honest [named person] the chief executive, sent out the invite and that resulted in a bigger attendance than if I had sent out

the invitation... I can guarantee, you know, it wouldn't have achieved those 30 or 35 on it...I wouldn't have achieved that number on my own" (18AF_153046). Strong leadership commitment, as indicated by the involvement of high-ranking officials like the CEO, can promote a high level of commitment and drive among members of the network. "If you have somebody the most senior person in your organization, people are more inclined to go along or to...well, it works both ways because if he says something has to happen or something, you know, we should do this or we will do this...he's your boss telling you so you know, you have a clear direction...I just think having the chief exec is just make a huge difference" (19AF_103217).

Another participant described the positive effect of having a senior leader chairing the alliance and ensuring high levels of engagement from other members: "Our chief exec is the chair of that alliance as well and it's amazing, it's fantastic to have his attention for two hours, every time we meet. And for the other members of the alliance as well, you know, it's a great platform for them to have" (19AF_103217).

Another participant emphasized the importance of leadership, noting the respect and motivation instilled by their leader and programme manager: "Leadership is very important, I would give them a ten of the ten, our leader and our programme manager [name]. There is no doubt they work extremely hard, and they make you feel a million dollars, you know, that you are very important. And are very respectful in a very nice way of equality you know? And that's very important and I am aware that not every county will tell you that story" (13AF_170423).

As well as the motivational aspect, traditional management functions such as the introduction of structured meetings linked to action plans, represent valuable input by the leader, helping to focus discussions on specific results and initiatives and enhancing the effectiveness of the meetings: "I would have felt when I took it over and I didn't get a great purpose as to why we were meeting, we were giving reports and then we were all leaving and there was no additional functionality to the disability meeting. So, I just wanted to make it more relevant. I wanted to assign responsibility where a responsibility lay and that those groups would come to the table and bring forward their updates on particular actions" (18HD_112904).

One participant praised the chief executive for her understanding of community development and her ability to chair initial meetings effectively: "The chief executive in the county, she chaired the initial meetings and I think was really, really, good, and...was a good community-minded,

understood community development or whatever...didn't have to worry about what people thought of her either like, you know, comfortable in her own skin doing and doing this good job" (12AF_153209).

The argument in favour of independent chairs to encourage honest discussions indicates a potential bias and conflict of interest when local authorities lead. This theme underscores the necessity for transparent, supportive, and well-trained leadership to enhance collaborative efforts. The role of independent leadership in maintaining neutrality and in helping to resolve conflict was highlighted: "...an independent chair was a big help in that regard. It would be very difficult for somebody involved in the mix of service provision to come to the aid of either side. Because I was independent, I was able to bring it together" (2AF_105528).

Finally, another participant emphasized the importance of inclusive leadership, ensuring that every voice is heard and valued: "But [now] if you don't understand and you can listen to everyone else and then he'll come back to you at the end and say, do you want to say something? And then you can say...because you've heard points from kind of the other people and you kind of get a bit more in your head of what's going on" (8HD_103333).

In conclusion, the evidence suggests that the role played by the leader is broad-ranging, significant and impactful. While the original model may have picked up some of the effects of the leadership role, a more detailed analysis of this theme reveals additional factors that may play a role in determining effectiveness. Several participants shared their positive experiences with leaders who were community-minded, respectful, and able to create an inclusive environment where everyone felt valued. The increased legitimacy that results from the involvement of the most senior staff member in the local authority is significant and likely to have a strong positive effect on the overall effectiveness of the group. The quotes suggest that leaders who are community-minded, inclusive, and able to provide clear direction significantly enhance the effectiveness and cohesion of the group.

Lack of commitment or sense of purpose ('the tick-box exercise')

An additional theme emerging from the interviews is a sense of dissatisfaction and scepticism regarding the genuine commitment of various stakeholder groups and committees involved in Age-friendly and Housing and Disability networks. Multiple interviewees expressed concerns that these initiatives often devolve into mere "tick box" exercises, where actions are taken to meet

formal requirements rather than to drive meaningful change. For example, “but really some of them would be nearly a tick box, like we're doing this anyways, so even if there wasn't an age-friendly programme in the county, they're still doing it” (8AF_150625). This quote suggests that certain activities would continue regardless of the programme, promoting a feeling among network members that their role is unimportant.

Similarly, “if the [housing] allocations are done outside of the group, or decided outside of the group, what then is the role, or what's the function of the committee then? I sometimes question, is it a tick box exercise to get like, okay, having people sitting around the table that have a lived experience...But I walk away going, I don't think the likes of myself or other people are sharing anything that the stakeholders don't already know So I'm not really sure, to be honest. [18HD_111026]. This quote, from a person with a disability, suggests that they lack a feeling of genuine purpose or real influence in the network. The role of councils and housing bodies is also questioned, with one interviewee asserting that these entities can fulfil their roles without the need for external input “The City Council and County Council and the big housing bodies can always house people with disabilities without needing us” [5HD_105736]

The frustration with the lack of genuine engagement is further emphasised by an interviewee who noted that past meetings led to no action and were merely about maintaining appearances; “It's not just having a meeting and forgetting about it to the next disability stakeholder meeting. And that's what would have been happening in the past. And that's no good because you're not doing anything. You're just ticking the boxes. So in between meetings, you would have been constantly sort of making those links and staying in contact” [11HD_135957]

Finally, one additional participant highlights the perceived pointlessness of the meetings, describing them as social exercises rather than productive discussions, suggesting that the primary goal is to maintain positive public relations rather than effect real change. “So, a lot of the same ground is gone over. And a lot of people shooting the breeze...agreeing with each other, but nothing really, which is all very nice but you know, it's a lot of hours”. The rep felt that many people in the group were just “ticking the box”, and that the Steering groups in general were more of a public relations exercise “massaging the service providers backs”. In conclusion, these quotes suggest that a number of participants feel that the groups lack genuine engagement with the stakeholders. Instead, they feel that where the emphasis on appearances and formalities undermines the potential for impactful, substantive progress.

Temporality and Stability of Relationships

The temporality theme, while not in the original model, is incorporated in it through the theorised expectation that regular interactions are essential drivers of mutually supportive relationships and shared identity. However, the concept warrants consideration in its own right. The interviews suggest that relationships take time, continuity and regular networking. Several participants highlighted the importance of long-standing relationships and personal connections in achieving effective collaboration. One quote emphasised that knowing each other and understanding the commitment each member has to the goals promotes a sense of cohesion; "I suppose because we knew each other, we all knew the commitment we had to what we were doing. If you're in a job a long time, you get to know everybody and everybody gets to know you. Those relationships are there and then the community sector and statutory and all of that are very much interlinked with services" (7AF_103022).

This sentiment is echoed in another quote that highlights the importance of having norms that involve personal introductions and informal gatherings in building a team spirit and facilitating problem-solving through established networks: "We always sort of do a round of introductions at a table, especially if there's any different members, there's always a round of introductions to say, you know, what you do and why you're here and stuff like that" (7AF_103022). And..."There would be a gathering beforehand, it would always be tea and where we have ours there's a kind of kitchen area, so people would be having chats and stuff beforehand. And that just kind of helps towards bringing it together as a team" (5HD_105736).

Another interviewee echoed the sentiment that the informal chats that typically occurred before and after in-person meetings, were valuable for building camaraderie and understanding among members: "And you know having a chat...before we'd start the meetings some people would having the a cup of coffee or tea and then head to the meeting and then even after the meeting you might have a chat so that that side of it is gone, you know that informal just chatting to people" (4AF_093621).

Networking is described as a crucial aspect of the job for many participants, with personal connections and the ability to reach out to known contacts being vital for resolving issues, such as helping older people access hospital appointments: "And at the end of the day, you know yourself, that's how you get a lot of work done, it's the personal...I'd often get phone calls, say, for

older people who can't get a hospital appointment, or get to a hospital appointment, it's a real problem...So, you know, a lot of it is down to people and personalities and just knowing, networking I suppose if you like, but just knowing who can help you out" (5HD_105736).

The importance of networking is further emphasized by a participant who noted that most of their job involved getting to know people, suggesting that these relationships are instrumental in driving results and collaboration around the table: "Everybody kind of says, networking, you know, it's a very well used word but it is very important, I think. Anyway, it's practically most of my job is kind of networking really, is getting to know people and getting to know individuals and putting yourself out there and that's how results happen, is just by getting to know each other, you know, around the table" (5HD_105736).

However, the negative side of temporality was also highlighted in the interviews. Without continuity and stability of membership, network members do not have the opportunity to develop relationships. Several quotes pointed to the negative impact of frequent personnel changes within groups, leading to a lack of cohesion and continuity. One participant noted that breaks in the group's activities disrupted the flow of work: "I'm not too sure that it has...that it's very cohesive because there have been too many breaks. I mean, there was, it went fine for the first bit, then there was another long break" (22AF_10824).

Another highlighted that changing membership led to a loss of continuity and a diminished understanding of the group's goals and purposes: "I don't think so because this is just the changes in personnel on the group. You know, the membership of the group changes so much. And yeah, you know, you kind of lose continuity then" (19HD_540321).

The lack of training or induction for new members exacerbated these issues, leaving individuals without a clear understanding of the group's history or goals. One member talked about the lack of induction or even introduction of new members while another talked about not knowing who was who, in the group or having any real understanding of what the group was about. "Like if you're changing that often...you haven't really built up, you know, a flow and kind of people are joining not knowing what's happening. And as I say, there's no training really, they get no...they're not told what the group is about, they've no history to the group" (19HD_115831).

The discussion about strong, established relationships and the disruptive influence of frequent personnel changes highlights the importance of time and stable relationships. However, this is

also a theme that can be measured by the factors in the model. Continuity and stability of membership will ensure that supportive relationships are established and positive norms of inclusivity will be established.

Covid-19

Another emergent sub-theme related to the development of relationships was the impact of Covid-19 and the move to online meetings. Interviewees debated the challenges and limitations of virtual communication methods like Zoom and Skype compared to in-person interactions, particularly in the context of building relationships and encouraging collaboration. Several participants expressed concerns that while virtual meetings are effective for completing basic business tasks, they fall short in facilitating deeper, more meaningful connections between members. One participant noted the difference between accomplishing tasks and building relationships, emphasizing that virtual meetings are not conducive to personal interactions that help address specific issues: "We would communicate a lot more regularly now, I think. But I think in terms of, you know, building relationships, you know, with people, you know, you don't get that on a Zoom call. I mean, it's great for getting the basic business done, but if you want to...I want to talk to so-and-so this month because there's something, an issue has come up with the older persons council and I need to talk to somebody, you know, I need to talk to so-and-so about that, but I don't need to bring it into the whole meeting, you get a lot of business done" (13AF_175834).

Another participant highlighted the irreplaceable value of face-to-face interactions for relationship development, noting that informal conversations over a cup of tea or while waiting for a meeting can develop a better understanding of colleagues on a personal level: "You can't really compare the two in relation to being able to develop a relationship by Skype or Zoom, as opposed to physically meeting a person and getting to talk to them. Because by Zoom, you can't have a one-to-one conversation. So usually what happens is, you know, when you have a cup of tea and a biscuit or you meet them outside while you're waiting, you ask them and you get to know a bit more about them personally, as opposed to professionally. And you just, you just develop, you get a feel for what that person is like as opposed to what's on the screen" (5HD_105736).

The limitations of virtual communication were also emphasized by another participant, who pointed out that online meetings are often less engaging and more rigid compared to in-person meetings. The lack of non-verbal cues and the urgency to complete tasks quickly due to potential technical issues detract from the free-flowing nature of in-person interactions: "I don't think it's as free flowing online as it was in person because, it's like everything you just...some people really are uncomfortable with online... I just think people want to go get it done, get their bit done before things, before the technology breaks down, I think in-person allows for more free-flowing [discussion], more engagement and eye contact and body language and all of that rather than, you know you're coming on just say your bit" (4AF_093621).

Again, these quotes suggest that relationship-building is the main casualty of the move to online meetings. While virtual meetings offer convenience and efficiency for certain tasks, they lack the depth and spontaneity of face-to-face encounters that are essential for building trust and understanding among team members.

Mutual respect

One of the key themes that emerged from the interviews related to the importance of mutual respect and equality. Again, this theme was not unexpected and was theorised to be a crucial part of the development of a shared identity. While it was included in the survey, there was universal agreement that people were mutually respectful. However, it emerged from the interview as a significant concern for members. "...there has to be a degree of equality and respect at the table. So that every member is equally respected and equally heard, no matter how big an organisation they come from...every person gets their opportunity to speak, to say their piece, to give their opinion. (7AF_103022) as well as a significant indicator of success, "You know, that we're all treated exactly the same way, that the county manager is treated the same way as myself from [named organisations] we're all treated exactly the same within the meeting and, you know, outside of the meeting as well. Everybody is listened to and their opinions are taken on board and I have seen that growing and developing over the years. [7AF_112901].

In conclusion, while mutual respect is an important consideration in cross-sectoral groups and groups with significant power differentials, researching this theme was more effectively achieved by taking a qualitative approach rather than the use of a de-contextualised survey question.

7 Conclusion

7.1 Introduction

Public managers have long been aware that a 'siloes' mentality may not always offer the best approach to addressing complex social or environmental issues (Christensen and Laegreid, 2007; Bento, Tagliabue and Lorenzo, 2020). To address this concern, governance networks have emerged as a prominent approach to tackling complex social problems and achieving policy outcomes in contested environments. Within governance networks, collaboration has been recognised as an effective method for addressing the complexity and fragmentation inherent in these social issues. While they have become increasingly common, working across organisational and sectoral boundaries is not an innate skill across public management, nor does it appear to be one for which managers (in Ireland) receive much training. In addition, the demands of the control, authority, and accountability span in the public sector make this sort of working model even more challenging than in private sector endeavours.

The opening chapters of this work demonstrated that, in the many decades of research into collaboration in governance networks, an increasingly clear picture of the determinants of effectiveness has been presented. While abundant empirical work has clarified the many structural and functional characteristics prevalent in successful networks, the theoretical models are complex. Furthermore, the practical experience of this researcher suggested that despite the many decades of research, many public managers lack a clear understanding of how cross-sectoral governance networks can achieve effective collaborative outcomes or even if this approach to policy implementation and service provision is genuinely effective.

In this concluding chapter, I will summarise the research questions and their relevance to public management theory and practice. I will outline the approach taken to answering the research questions and present (in simplified form) my research findings and their contribution to theory and practice. Finally, I will consider the limitations that may undermine the conclusions and

discuss the ways these limitations have been minimised before presenting thoughts on the logical next steps in furthering this stream of research.

7.2 Research Questions

The research questions arose from a rigorous examination of literature using both thematic and systematic review methods and sought to answer a number of questions, outlined in Chapter 1 and further developed in Chapter 2.

RQ1: What are the determinants and underlying factors driving effectiveness in governance networks, how is effectiveness defined and measured and what gaps remain in our knowledge?

RQ2: What is the nature of shared identity in a governance network? In other words, do conditions that commonly occur when individuals collaborate in a governance network, combine to create a shared identity and, if so, in what combinations? What conditions are necessary or sufficient for the achievement of a shared identity?

RQ3: Do effective networks create a shared identity? What if any, causal pathways (or combinations of factors) can be found linking the factors that combine to create a shared identity (such as shared goals, interactions, and mutual support etc) and the outcomes for network members, service users and/or community members?

RQ4. If there are causal pathways linking the conditions to shared identity, is there evidence of a mechanism that explains the link between the conditions and the outcomes?

7.3 Summary of Methodology

To address these questions, the research took a multi-method approach, integrating both qualitative and quantitative data to gain a comprehensive understanding of the cases. The research took a configurational approach to causality, looking not at the net effect of a single condition but at a configuration of conditions, acknowledging that a particular condition may have a different effect on the outcome depending on its combination with other conditions. This approach fits with the concept of causal complexity. For this purpose, Qualitative Comparative

Analysis (QCA) offers an ideal approach to developing an understanding of the complex world of governance networks, and it was used to analyse the survey data and answer two of the research questions – RQ2 and RQ3.

Having reviewed existing instruments (see section 2.6), it was found that most were based on the type of identity that is core and intrinsic to a person's definition of themselves rather than the type of temporary, role-related identity considered in this study. Therefore, using a conceptualisation of shared identity as an emergent work-group type of identity, data was collected using a new instrument developed for this study. Knowing that shared identity is conceptually ambiguous, it was felt that it could best be explored using an instrument that asked about underlying constructs, such as a feeling of belonging or commonality with other group members. The perceptions of network participants on the nature and presence of shared identity and the conditions linked to network effectiveness were explored further in semi-structured interviews.

QCA was then used to analyse the survey data and identify the conditions that were either necessary or sufficient for the development of a shared identity. QCA was also used to explore the relevance of the conditions in the model for either subjective or objective effectiveness. With the aim of going beyond the simple identification of conjunctions of conditions that produce the outcome, this study also sought to test for evidence of the causal mechanism, hypothesised to explain how the conditions identified in the QCA analysis produced the outcome. QCA procedures were also used to categorise cases, identify those that were most typical or most irrelevant for the outcome, and, using counterfactual reasoning, draw inferences from in-depth within-case analysis of the selected cases using qualitative data.

7.4 Answering the Research Questions

7.4.1 RQ1 Effectiveness – Determinants and measurement

To answer RQ1, a thematic and systematic literature review was carried out (Chapter 2). Three bodies of literature were explored; literature from public management about the determinants of effectiveness; literature on the theoretical foundations and underlying factors of individual and group identity; and finally, literature on group dynamics.

Individuals and the relationships they form are at the centre of network functioning and effectiveness (Butterfoss, Goodman and Wandersman, 1993) and the nature of the relationships between them must be understood. The thematic review found several determinants operating at the individual and behavioural levels that can influence outcomes. These include member engagement (Kegler and Swan, 2012), the sharing of goals (Vangen and Huxham, 2012), mutual support (Keast and Brown, 2006) and interpersonal trust (Klijn, Edelenbos and Steijn, 2010).

Measurement of effectiveness

One of the key questions to be addressed is what constitutes effectiveness in the context of the governance networks in this study. However, assessing the effectiveness of collaboration within governance networks is a challenging task. There is no consensus on how collaboration should be defined or its effectiveness measured, leading to divergent criteria for judging the effectiveness of governance networks. One of their distinguishing features is that outcomes are jointly owned and delivered, but organisations continue to operate independently, so not every activity undertaken by an organisation can be attributed to the network. On the other hand, organisations may perform activities independently that can be linked to the fulfilment of the goals of the network.

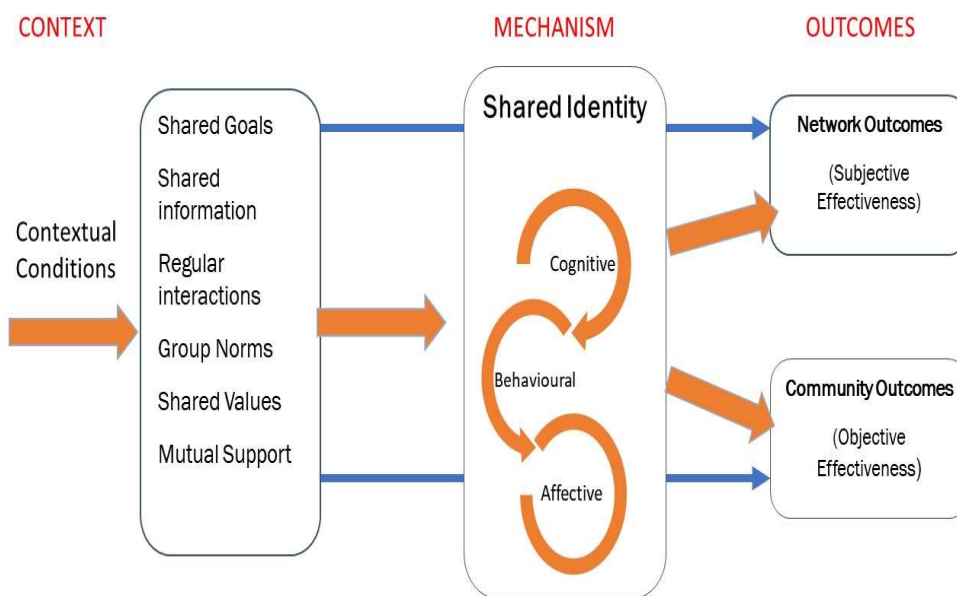
The systematic review of the literature on effectiveness carried out for this study found that many of the empirical studies reviewed used process measures, (often in combination with other measure) such as agreement to collaborate or the existence of a collaborative relationship. The 'attainment of goals' was also one of the most frequently used measures, along with other process measures such as 'implementation of activities' or 'number of promotions, programmes, policy influences or physical projects implemented'. In some studies, the achievement of goals was operationalised into specific quantifiable measures, such as the number of services provided at the lowest cost (combined into a single measure) (Cristofoli and Markovic, 2016). Subjective measures or perceived effectiveness made up the next largest category (30%) and objective measures were used in a minority (20%) of cases. Of those studies that used objective measures, only 20% of them measured effectiveness at the community level. A large number of studies measured outcomes at either the network or organisational level, and only 4% focused on individual outcomes.

The findings from this review provided the theoretical basis and grounding for the research model used to guide this research and informed subsequent research questions. By integrating three bodies of literature, this study has developed a model that was used to test and explain the causal

links between collaborative behaviours and the effectiveness of governance networks. By exploring the causal links between these conditions and shared identity, the ultimate objective was to develop a more parsimonious model, integrating some of the common features of collaboration into a single concept – shared identity.

The process of identification is both individual and collective – individual members identify with the group, and the group develops a shared identity. The systematic literature review revealed that network-level studies have been comprehensively explored. Therefore, taking a different approach from much of the extant research, this study focused more closely on the micro-level, looking at the behaviours and relational processes between the individuals that make up these groups. From this perspective, a research model was developed based on evidence from previous studies. The model was used to test the hypothesised relationship between these behaviours and their outcomes.

FIGURE 7.1 RESEARCH MODEL



7.4.2 RQ2: Model conditions and shared identity

The central argument presented in this research is that many of the factors that contribute to effective, collaborative working in multi-sectoral, multi-organisational governance networks share a common conceptual foundation with those that can produce a shared group identity. Further, it

is hypothesised that the relational processes that produce a shared group identity can, in turn, contribute to the development of effective, collaborative networks.

The literature review explored not only the determinants of shared identity but also the factors that explain how a shared identity is formed. It is clear that there is considerable overlap between the factors that contribute to network effectiveness and those linked to the development of a shared identity. The importance of shared identity lies in its connection with a range of positive outcomes (see section 2.4) For example, findings from one study found that participants who identified with their networks merged their personal identity with the identity of the network and experienced a boost to their self-esteem in parallel to the achievements of the network (Barrutia and Echebarria, 2019). Therefore, it is hypothesised that groups that have developed a shared identity will also be more likely to be effective.

The novelty of the approach taken in this study lay in the introduction of shared identity as a mediating concept to potentially clarify and simplify our understanding of the relational processes in these networks by collapsing certain behaviours into the concept of shared identity. By so doing, the aim was to provide future researchers and practitioners with a clearer foundation on which to build and develop collaborative relationships across sectors and organisations to achieve governance objectives.

The analysis found that none of the five conditions were individually necessary but that, as hypothesised, a combination of factors or conditions was necessary for the development of a shared identity. A combination of shared information or shared goals (INFO + GOAL) and shared goals or contributions to meetings (GOAL + MEET) are necessary for the outcome of shared identity. This means that either shared information or shared goals must be present, and either shared goals or regular contributions to meetings must be present in groups with a shared identity.

Interpreting the intermediate solution, two pathways were found, linking conditions in the model with shared identity. A combination of shared goals and mutual support were found to be sufficient for a shared identity. This means that these conditions are never present in the absence of shared identity, so whenever a group has shared goals and mutual support between members, they will also have a shared identity. Similarly, when they have shared norms, shared information, mutual support, and regular contributions to meetings, they will have a shared identity. As the

feeling of mutual support is common to both pathways, it can be seen as the core condition in the development of a shared identity in the group. It can also be surmised that having shared goals may substitute for the other conditions (shared information, shared norms and contribution to meetings) to produce a shared identity.

TABLE 7.1 CONFIGURATIONS FOR ACHIEVING SHARED IDENTITY

Conditions	Necessary		Sufficient (Intermediate sol)		
	1a	1b	Individually sufficient	2a	2b
Shared Goals	□	□	⊗	○	
Shared Information	□		⊗		○
Mutual Support			⊗	○	○
Contrib to Meetings		□	⊗		○
Shared Norms					○
Consistency	0.928	0.930		0.875	0.932
Raw Coverage	0.732	0.661		0.783	0.491
Unique Coverage				0.300	0.008
Overall Solution Consistency				0.876	
Overall Solution Coverage				0.791	

Source; Fiss, P.C., 2011. Building better causal theories: A fuzzy set approach to typologies in organisation research. *Academy of Management Journal*, 54(2), pp.393-420.

TABLE 7.2 KEY TO SYMBOLS

○	Presence of condition in conjunction (AND)
□	Presence of condition in disjunction (OR)
⊗	Individual necessary condition
⊗	Individual sufficient condition

Based on previous studies, I hypothesised that shared norms would be essential to the development of a shared identity and that shared norms would be developed between network members to allow them to navigate potential issues or conflicts and find better ways of working together. However, the analysis found that shared norms were only in one of the two conjunctions that produce a shared identity – the pathway with low empirical coverage. This finding was also confirmed by the interviews with network members; very few of the interviewees were aware of any commonly agreed-upon norms guiding the group. This suggests that when

people share goals and have developed a feeling of trust and mutual support, it is not necessary to develop norms or rules of engagement; they will adapt their behaviours to work with others in the group, perhaps temporarily subsuming their organisational identity within the shared identity developed by the group.

Having tested the research model, QCA analysis was then used to explore the potential for shared identity to act as a unifying concept, linking behaviours at the individual level with outcomes at the network and community levels.

7.4.3 RQ3 – Shared identity and Effectiveness

The analysis of conditions necessary or sufficient for subjective effectiveness presents a number of empirical patterns that are worth noting. When shared identity is added as a condition, four of the (now) six conditions that are now **necessary** for subjective effectiveness – shared goals, mutual support, shared information, and shared identity—pass the 0.9 threshold for necessity. This means that these conditions must be present for subjective effectiveness to occur.

There are also three necessary conjunctions – mutual support with shared information, mutual support with shared goals, and shared information with shared goals, all of which are necessary for subjective effectiveness. An analysis of sufficiency found that two pathways led to subjective effectiveness. Both included five conditions in the model: the one with the best parameters of fit excluded shared norms, and the other excluded contributions to norms. This suggests that the model is mostly accurate in its depiction of the causes of subjective effectiveness. Subjective effectiveness is essentially a measure of good collaboration, and this finding is unsurprising, given that all were chosen based on empirical evidence from previous studies.

TABLE 7.3

CONFIGURATIONS FOR SUBJECTIVE EFFECTIVENESS

Conditions	Necessary Conjunctions and Disjunctions				Sufficient (Intermediate sol)	
	1a	1b	1c	1d	2a	2b
Shared Goals	⌘		○	○	○	○
Shared Information	⌘	○	▪	○	○	○
Mutual Support	⌘	○	○	▪	○	○
Contrib to Meetings	▪	▪	▪	▪		○
Shared Norms	▪	▪	▪	▪	○	
Shared Identity	⌘			▪	○	○
Consistency		0.903	0.931	0.900	0.884	0.859
Raw Coverage		0.732	0.748	0.771	0.679	0.756
Unique Coverage					0.09	0.167
Overall Solution Consistency					0.89	
Overall Solution Coverage					0.85	

Shared identity is individually necessary for subjective effectiveness and is part of a combination of conditions that are sufficient for subjective effectiveness. However, shared identity is neither necessary nor sufficient for objective effectiveness. Based on the empirical data, the conditions that produce objective effectiveness are contrary to the model tested, and conjunctions are made up of different combinations of absent conditions. The only conclusion that can be drawn is that the factors in the model are not causally linked to objective effectiveness.

The objective effectiveness measure in the HD case was based on the provision of housing to disabled people, and it was expected that the actions of the Steering group would succeed in increasing the proportion of social housing allocated to disabled people. The conclusion that it is not linked to the behaviours or interactions in the Steering group is in one way supported by the comments of a few disenchanted local authority managers who argued that they can and would continue to provide houses regardless of the Steering group.

7.4.4 RQ4 – Mechanism linking conditions and Shared Identity

The analysis carried out (See section 6.5.1) using the qualitative data provides some support for the existence of the mechanism, but not all typical cases provide strong evidence. It was acknowledged across many interviews that building trust and developing relationships (measured by SUPP in the QCA analysis) takes time and consistent effort, and that awareness of the relationships also takes time to build. Groups that were led by a recently appointed programme manager, particularly one that had not had any face-to-face interactions with the group, did not provide strong evidence as the managers were unable to judge whether the group members shared goals, developed relationships, or shared an identity. The data also suggests that successful collaborative groups may have a core group of strongly committed and enthusiastic members as well as some less engaged members. Based on findings in the literature about ‘emotional contagion’ in groups, these enthusiastic members may eventually increase the motivation or engagement of others if there is sufficient interaction between members. Perhaps the most unambiguous evidence comes from the IIR cases. Each of the cases consistently showed an absence of cognitive and affective aspects of the mechanism. The interviewees were generally in agreement about what was missing and talked about a lack of purpose or a level of energy or engagement among network members. These are all consistent with the proposed mechanism.

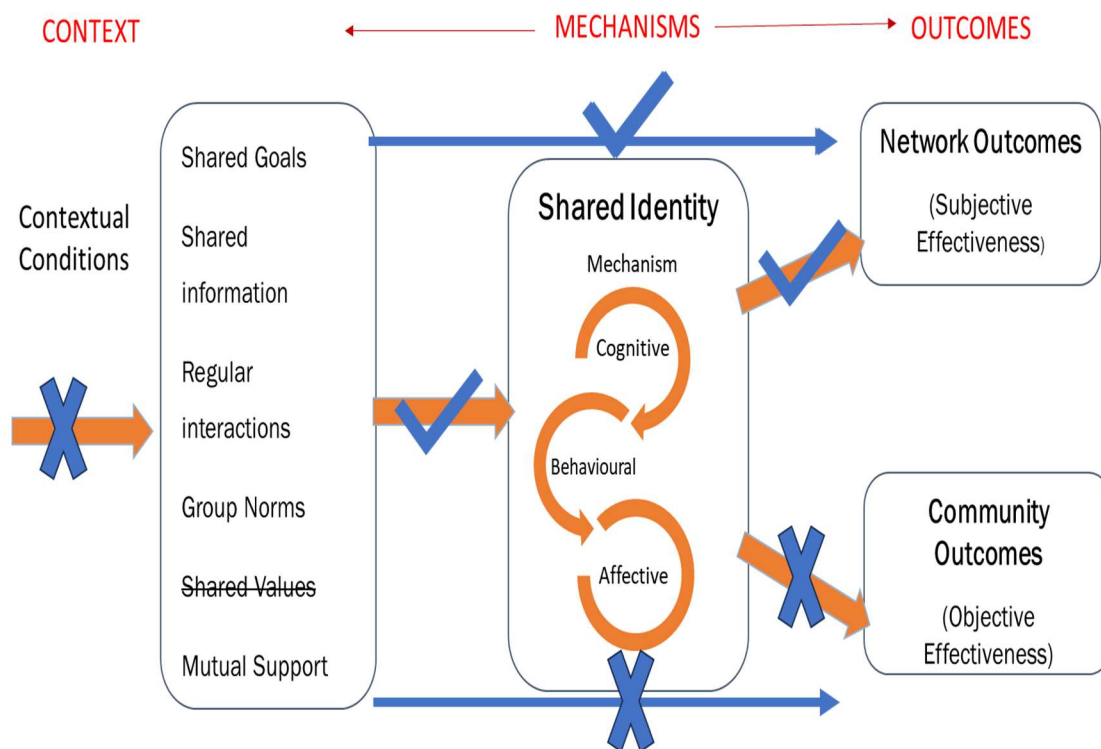
7.5 Contribution to Theory

The contribution to theory from this research is elaborated above in the answers to the research questions. To summarise:

Effectiveness measures: the proposed measures were drawn from existing literature and tested through the QCA methodology and have been categorised as subjective or objective, and relevant at 2 levels: network and community. The QCA showed that demonstrating a relationship between known determinants and objective community effectiveness was not possible, in spite of having a large number of comparable cases. Future researchers will have to think carefully about whether it is feasible to assess the objective effectiveness of networks, never mind the determinants of such an outcome. Subjective effectiveness, related to both network and individual outcomes have been defined and measured and the approach used here may be replicated in future studies.

Determinants of Effectiveness in Governance Networks: Through the identification of the necessary and sufficient conditions that lead to shared identity and subjective effectiveness, this research advances our understanding of the key factors that contribute to greater effectiveness. The cross-case analysis identified patterns within the data that, applying the regularity theory of causality, can be deemed causal for subjective effectiveness – albeit not for objective effectiveness as noted above. Of the six conditions originally considered – 5 were found to be determinants to some extent – with three of the original model conditions were found to be, both individually and in combination, necessary for subjective or network-level effectiveness. In other words, to achieve network-level subjective effectiveness, shared goals, shared information, and mutual support must be present. This suggests that future models (and practice) should include these and that it may be possible to drop the others and still achieve subjective effectiveness. Furthermore, Shared Identity was shown to be necessary for subjective effectiveness, and this research suggests that it can substitute for other factors (shared goals, shared information and mutual support) (See figure 7.2). Finally, the context/resources conditions that could be compared across cases were not found to be key determinants for effectiveness which suggests that future theory-building efforts should pursue the ‘within network’ elements more actively to identify what can actually be done by participants to increase the likelihood of success.

FIGURE 7.2 REVISED MODEL AFTER RESEARCH



Incorporating Shared Identity into other theories of network effectiveness: By integrating literature from social psychology and group dynamics into the models developed within public management, this research contributes to the development of a more parsimonious collaborative governance theory - with a focus on the collaborative processes and dynamics of existing frameworks. This research points to the possibility of substituting the mechanisms **and determinants** of Shared Identity as described herein for the broad range of concepts proposed by previous authors under the heading “Process / Collaborative Dynamics” in Figure 2.1 Comparison of Frameworks in the Literature Review. Perhaps most controversially, the mechanisms of ‘Shared Identity’ might be compared to those proposed by Emerson & Nabatchi (2012) – Principled Engagement, Shared Motivation & Capacity for Joint Action – to assess which group has the most potential for future research into the determinants of network effectiveness. However, it is also important to reflect on the challenges of applying a concept of shared identity to both research and practice – as noted previously in this thesis. While on the one hand identity as a concept is a widely understood and currently debated topic, it is also conceptually ambiguous and its meaning was not immediately apparent to the research participants. From a practical

perspective, the concepts of group cohesion or team-building appeared to resonate more with research participants and these may be productive research and/or practice development path as well.

7.6 Methodological Contribution

The particular type of shared identity that can develop when members of a governance network work together differs from other conceptualisations of identity (see Chapter 2). For this reason, no suitable instrument was available to measure its existence, and one was developed for this study. This instrument differed from existing identity scales in that it used language and concepts more appropriate to these groups and, when tested, was found to have good construct validity. This work represents a first step towards the development of an alternative scale measuring shared identity (or group cohesiveness) in governance networks.

The concept of 'shared identity' was presented in this research as a unifying concept – bringing together some of the conditions known to contribute to collaborative effectiveness. It was tested using a multi-method approach and found to be necessary for network-level (subjective) effectiveness. However, in the qualitative interviews, it became clear that it did not resonate with respondents. Many responses suggested ambiguity; some interviewees equated shared identity with effectiveness or collaboration, others linked it to 'branding' and increasing awareness of the programme, while still others were unclear what the concept meant and asked for further explanations. Based on these findings and supported by Group Dynamics literature, it is proposed that the phrase 'group cohesiveness' could provide a less ambiguous understanding of the unifying concept.

This study used a relatively new procedure (Set-theoretic multi-method research or SMMR) (Schneider, 2023) to explore the causal inferences that can be made from this study by selecting specific cases for further within-case analysis. Having theorised the dimensions and processes that make up the causal mechanism, it then goes beyond the identification of cases to the integration of evidence from qualitative interviews to explain how the conditions in the model produce a shared identity and, in turn, greater network-level effectiveness.

7.7 Contribution to Practice

This study was motivated, to a large extent, by a desire to produce for practitioners a clear and more parsimonious model of collaborative effectiveness. To that end, the following offers suggestions, some of which have already been published in Shannon, S., and Rhodes, M.L., 2023.

As outlined above, there are three dimensions underlying shared identity; behavioural, cognitive, and affective. Evidence from this study suggests that the two most important factors to pay attention to are: 1) the need to share information; and 2) to develop a feeling of trust and mutual support between the members of the group. Both factors call for groups to go beyond a focus on the functional aspects of collaboration, such as passively attending meetings, described by several research participants as the 'tick-box' approach. Instead, evidence from the interviews suggests that network members need to be emotionally engaged, motivated, enthusiastic, and committed to the network. When group members feel engaged or motivated, other factors will fall into place. There will be no need for rules to guide behaviour. Attendance at and contribution to meetings will become a given.

To achieve their goals, people are more likely to openly share information where possible. They will still feel a responsibility to their organisation, but they are more likely to seek to align the goals of the group with those of the organisation. Paying explicit attention to the social and emotional aspects of group dynamics can also help develop supportive relationships and emotional ties among members.

Understanding emotional connections in group work goes beyond affective processes to include cognitive processes. One significant cognitive process in group work is information processing, where group members interpret and analyse information to make informed decisions. As individuals collaborate in a group, they bring their unique perspectives and cognitive abilities to the table, which can lead to diverse and innovative problem-solving approaches. In the AF programmes in this study, several of the older people interviewed said that they were regularly called upon to give their view, and they had many opportunities to ensure that service providers understood things from their perspective. Similarly, the programme leaders spoke about 'the voice of the older person' being central to everything they do and every initiative taken. By ensuring that all members of the group are made aware that their purpose is to improve the lives

of older people, the emotional connection with the goal is increased as members think about the needs of their own relatives or their own future needs as an older person.

This comprehensive approach provides a more profound insight into the social dynamics of group work. Positive emotions can play a pivotal role in the collective success of the group, as emotional states within a group setting are intricately connected and can also be contagious (Vijayalakshmi and Bhattacharyya, 2012). Group work is inherently emotional, with social interactions serving as the strong elicitors of emotions. As group members experience a sense of belonging and establish relationships with others in the group, the emotional connectedness develops a shared identity and a greater commitment to the group's purpose and goals.

To develop a shared identity in a cohesive inter-organizational entity, practitioners may find it useful to consider an approach such as the ASPIRe Model (Haslam, Eggins and Reynolds, 2003). Space does not permit a full discussion of the model, but the first stage of the process may be the most relevant in an inter-organizational context, as it calls for the group to collectively explore the shared characteristics that individual participants consider to be important for their work-related activities by asking them to identify those that they collaborate with most frequently and what characteristics they share. The key point in the application of a model such as this is that it provides an opportunity for the group to become aware of and give equal respect to the identities of each member while also developing and committing to the shared goals of the network and developing opportunities for the type of interactions that promote greater engagement and further commitment.

Based on the evidence from this and many other studies, the following are some strategies a leader can use to cultivate a shared identity within a collaborative group:

Establish a common vision: Encourage the group members to define a shared vision and mission that reflects the collective goals and values of the collaborative effort. Building this shared vision through open discussion and consensus-building will ensure that all members feel invested in the shared purpose.

Highlight interdependence: Discuss the potential contribution of each individual member, ensuring that each member understands the importance of the role they and their organisations can play in achieving the goals of the group.

Encourage open communication: create opportunities for open and transparent communication among group members, and ideally, ensure that each member is called upon to contribute to meetings. Develop an atmosphere where people feel comfortable expressing their thoughts, concerns, and perspectives, and ensure that all voices are heard and respected.

Develop a sense of inclusivity: Promote a culture of inclusivity by acknowledging and valuing the diverse backgrounds, experiences, and expertise of each group member. Encourage the active participation of all individuals and create a space where everyone feels that their contribution is valued. Where the purpose of the group relates to a particular cohort (eg older people or disabled people), it is important to ensure that their views are explicitly sought and given prominence in relation to any proposal brought forward.

Build trust and respect: Prioritise building trust and promote a feeling of mutual respect among group members. Encourage collaborative decision-making and promote transparency in actions and communications. Providing opportunities for informal communication and interactions can contribute to the development and strengthening of interpersonal relationships and trust within the group.

Create shared experiences: Facilitate opportunities for group members to engage in shared experiences, such as sub-group activities, collaborative projects, or joint strategy-development exercises. These experiences can help develop a sense of shared accomplishment, strengthening the group's cohesion and identity.

By implementing these strategies, a leader can effectively cultivate a shared identity among individuals in a collaborative setting, developing a cohesive and collaborative environment where group members feel connected, valued, and committed to achieving shared objectives.

For the national agencies, the findings of this research suggests that the building of equal, mutually respectful relationships between network members is an important contributor to effectiveness. This will mean that stability of membership should be encouraged and focused efforts should be made to ensure that opportunities for face-to-face, informal gathering are made available. Interviewees in many of the successful groups highlighted the importance of the pre- or post-meeting cup of tea or coffee or even in one group an annual get-together at Christmas. These opportunities help group members get to know each other on a personal basis, which in

turn sets off a positive cycle of interactions such as more open sharing of information, greater commitment to each other and to the goals and the building of mutually supportive relationships.

7.8 Limitations

Previous studies have established that contextual factors are relevant for outcomes. In this study, I included two: local authority size as a proxy for resources and ‘programme differences’, as a comprehensive measure intended to capture a range of procedural and historical differences between the two cases. A two-step QCA procedure was used (Schneider, 2019), which is designed to be used with remote (context) and proximate conditions. Despite rigorous application of the procedure, the QCA analysis did not find that either of the two context conditions met the standard to be included in further analysis.

This study purposely selected cases in which many of the normal contextual differences were minimised (as discussed in Chapter 3) in order to retain the analytical focus on the more proximate conditions. For example, all cases were based on local authorities, and each local authority had one network from each programme. They were therefore geographically similar and operated in a similar political, social, and economic environment. Each network was managed by a local authority manager and supported by a national office, which maintained oversight and provided guidance and training. However, there are some differences between the programmes (outlined in section 3.6.2) and to capture these differences, the condition PROG was included in the contextual analysis. To capture any potential resource differences between cases, the condition size was included. The QCA analysis found that neither of these contextual factors was relevant to the outcomes. However, some differences were observed in outcomes between the two programmes. For example, most of the cases in which shared identity and subjective effectiveness were observed were in the Age Friendly programme, and this suggests that further exploration of the differences between programmes could provide greater clarity (see Appendix 26 for further analysis of the differences between the two programmes).

The choice of “Governance networks” as the term to be used to define the units of analyses in this study was arrived at when the research was already advanced and some of the early parts of the study had been completed. The term ‘Governance Network’ was not specifically used for the Systematic Literature review. However, the search that was carried out found and analysed

numerous articles that used the term. As was pointed out by the thesis examiners, a search using 'governance networks' and 'shared identity' could have been fruitful and this is a limitation to the current research that must be acknowledged.

This research focused on governance networks in Ireland, and while 22 groups from a possible 60 were included across the two programmes, they both operate in an Irish public management environment, which may limit the generalizability of the findings. Irish cultural practices or experiences may exert an influence on the nature of the interactions between network participants, which may differ from those in other cultures in ways that have not been accounted for in the research.

Perhaps more significantly, but not uniquely, this study may have been influenced by timing. The survey data collection period commenced in June 2021 and concluded in October that year. This was during the COVID lockdown period, when all meetings were held online, and although Ireland was emerging from lockdown when the semi-structured interviews were carried out (during the first quarter of 2022), in-person meetings had not resumed at that time. There is ample evidence to suggest that the nature of inter-personal interaction and communication is different and participants are less engaged (Rosen and Kelly, 2022) when carried out in-person or online and that connections formed through online communication are suboptimal surrogates of offline ones (Sherman, Michikyan and Greenfield, 2013; Marinucci *et al.*, 2022). Further, it is known that achieving entitativity (an important contributor to shared identity explored in Chapter 2) in a group is more difficult in an online setting (Blanchard and Allen, 2022). Finally, there is evidence that these differences can be mitigated by pre-existing relationships and histories of interaction (Blanchard and McBride, 2020) suggesting that groups composed of people who are already familiar with or friendly with each other will overcome some of the difficulties presented by the online modality. All this evidence suggests that the groups studied in this research may differ from those currently meeting in regular face-to-face meetings. This may limit its generalizability in a post-COVID scenario.

This research was based on a theoretical model grounded in a rigorous examination of the literature. However, it does not include all of the factors that experts have identified. Instead, two contextual and six process conditions were selected based on a review of the main theoretical frameworks and findings from empirical studies (Ansell and Gash, 2008; Emerson, Nabatchi and Balogh, 2012; Bryson, Crosby and Stone, 2015). From these frameworks, conditions were chosen

to explore the perceived overlap between factors that contributed to collaborative effectiveness and shared identity.

While QCA does facilitate a configurational analysis and accepts causal heterogeneity, there is a limit to the number of conditions that can be included in the analysis. Acknowledging the potential heterogeneity of individual perspectives, the aim of this research was to develop a comprehensive understanding of each governance network from the perspectives of several members. All in all, 60 governance networks were approached, and a total of 22 provided sufficient data for inclusion. This resulted in a response rate of 36.6% of networks, which, while adequate from the perspective of network inclusion, was less than optimal when the number of individuals per network is considered. In many networks, the qualitative phase of the research was based on the content of two semi-structured interviews. To address this potential limitation, interviewees were asked to offer their views of the overall network – admittedly a subjective view that may be biased or inaccurate. However, many interviewees confidently quantified (for example) the proportion of engaged to disengaged members based on their experience within group meetings, suggesting that they were capable and fully prepared to offer their views on the performance of the whole network.

Ensuring that data collection in a social setting is fully and accurately representative of the views of all group members can be difficult. It is also generally true that a group of people is unlikely to hold a single cohesive view on many topics. Views may change as circumstances or the composition of the group change. This limitation was addressed through the use of multiple data collection methods to gain as comprehensive a view of the workings of the group as possible.

An additional factor limits the generalisability of the findings. Although all networks that met the inclusion criteria for the study were invited to participate, not all wished to do so. This may have resulted in a potential self-selection bias. Whether the groups that participated in the study were significantly different from those that decided not to participate cannot be known.

7.9 Further Research

This study developed a scale to be used to measure collaborative behaviours and shared identity. This scale performed well in tests of validity and reliability, but further studies could carry out more in-depth research to test this scale with different groups. This research could expand the

number of items and test the items with a broad range of experts in the field before administering them to different populations and evaluating them to determine which items best measure the construct and are suitable for use with a broad range of similar groups.

As discussed above, this research did not carry out a literature search specifically focusing on governance networks and shared identity. To build on the findings of this study, this is an area that could be fruitfully explored by future researchers

The SMMR approach identified cases that were, based on the data, typical, irrelevant, or deviant in different ways. Within-case analysis of combinations of these cases can provide stronger causal inferences linking conditions to outcomes. As this study was exploratory, the focus of data collection was on a range of different conditions. Further studies could follow up with the typical and irrelevant cases identified and carry out more in-depth, process-tracing research focused on the key conditions found in this study.

To address the issue of timing, further research could add a longitudinal aspect to this study by returning to these cases in the future. Many of the HD interviewees suggested that the new strategy they had completed immediately prior to the interview would, as they expected, have a positive impact on the future workings of the group. These groups were also in the process of recruiting disabled people to each steering group. Groups are dynamic entities, and the nature of a group identity will tend to be the product of the interactions between group members. They most likely will change over time as different people join the groups or different network members or managers influence the goals, interactions, and relationships. Returning to the groups at a later stage could also seek to capture the dynamism of the groups and assess the impact of any membership changes on outcomes or on the shared identity.

Many study respondents referred to the benefits of the informal social interactions that were a regular part of meetings before (and since) Covid-19. Further research could explore the relative importance of this condition for the development of cohesion, shared identity, and effectiveness.

7.10 Conclusion

In conclusion, the core finding of this thesis is that the intricacies of the collaborative process can be simplified through a focus on shared goals and mutual support – which can also be measured as ‘shared identity’. The mechanism identified in many of the strongly typical cases provides an

explanation for the link between these conditions and the development of a shared identity. When network members share goals, they carry out activities to achieve these goals, they develop a greater understanding of their shared purpose which brings a greater understanding of each other's 'realities'. This shared reality, when built on over time, can lead to positive feelings such as enthusiasm for and engagement with the goals, as well as positive feelings such as trust and a feeling of mutual support towards other members. These three dimensions form the basis of the process of identification. Networks that show evidence of each of these dimensions are also likely to feel that their groups are effective. In other words, the factors that contribute to building cohesion or a shared identity in a group can lead to a collaborative, network level subjective effectiveness – whether it leads to better community-level outcomes is a question that this research could not answer with the data available.

The central message for practitioners is that building a cohesive group and paying attention to the factors that can lead to positive feelings towards the goals and the other members of the group is as important, or perhaps more so, in a diverse cross-sectoral group. Effectiveness is not simply a case of setting goals and targets; people also need to feel that their contribution to the group is of value to them and to others. Developing an understanding of the reality or the challenges that others are experiencing increases motivation, which in turn sustains engagement. It is, of course, more challenging because the manager cannot rely on hierarchical authority to achieve their goals and instead must accept the individuality and autonomy of each member and organisation. The path to doing so is through an exploration of identities and interdependencies and through the internalisation of the higher purpose and ultimate goal of the group.

Glossary of Terms

Many of the terms used in a QCA study are specific to the method and may not be widely understood. This glossary provides a brief explanation of some of the most frequently used terms in this study.

Source: Mello, Patrick A. (2021) *Qualitative Comparative Analysis: An Introduction to Research Design and Application*, Washington, DC: Georgetown University Press. And Schneider C. and Wagemann, C. (2012) *Set-Theoretic Methods for the Social Sciences* Cambridge University Press.

Boolean AND *	Logical operator that refers to the intersection between two sets (also known as a conjunction in the language of propositional logic). Case membership in the intersection between sets A and B equals the minimum membership score across the respective conditions.
Boolean minimization	Pairwise comparison of Boolean expressions to remove irrelevant elements and attain simpler expressions.
Boolean NOT. ~	Logical operator that refers to the negation of a set (also known as complement in set-theoretic language). Case membership in the negation of set A equals $1 - A$.
Boolean OR. +	Logical operator that refers to the union between two sets (also known as disjunction in the language of propositional logic). Case membership in the union between sets A and B equals the maximum membership score across the respective conditions.
Calibration	A process used to transform qualitative and/or quantitative raw data (uncalibrated data) into membership scores in a target set. The direct method of calibration is carried out by software following the definition of three empirical anchors by the researcher. Another approach (the manual approach) is carried out directly by the researcher assigning set-theoretic membership scores to cases. Each approach requires the prior definition of consistent criteria and close correspondence with the underlying social science concept.
Case	Unit of analysis. In the truth table, cases are assigned to the configuration in which they hold the highest set-membership score.

Case selection	The identification of cases for set-theoretic analysis. Case selection for QCA can be based on purposeful selection, given populations or scope conditions, as the most common approaches.
Conjunctural causation	Describes a setting where single conditions do not individually suffice to generate the phenomenon of interest but where specific combinations of conditions are jointly sufficient for the outcome
Causal asymmetry	Means that a recipe for the outcome can usually not be mirrored symmetrically to explain the non-outcome, but instead requires a separate analysis.
Condition	An attribute, characteristic, or feature of a case that is used to describe and/or explain an outcome. In each condition, cases hold set-theoretic membership scores that result from calibration. The term corresponds to what are described as variables in statistical usage. A key difference between variables and conditions is that the latter result from calibration, whereas the former can also be uncalibrated measures.
Causal mechanism	Generative process where several elements interact to bring about an outcome. Closely related to the within-case method of process tracing that aims at the identification of a causal link between a condition and an outcome.
Configuration	A combination of conditions represented in a row of the truth table.
Conjunction	A combination of two or more conditions (Boolean AND).
Conservative or Complex solution	The conservative solution results from the Boolean minimization of the truth table rows that are associated with the outcome. This solution is termed conservative because it does not incorporate logical remainders to achieve further simplification.
Consistency	Metric that indicates the degree to which the empirical data is in line with a postulated subset relationship. It expresses the percentage of cases set-membership scores in two sets where one is in a subset relationship with the other
Contradictory assumptions	Logical remainders that are assumed to be sufficient for both the outcome and the non-outcome, which occurs when the same logical remainders are used for both analyses. Also referred to as contradictory simplifying assumptions and incoherent counterfactuals.
Counterfactual	Assumption made about a case that did not occur or without empirical evidence. Logical remainders are potential counterfactual cases. That is, they are combinations of conditions without empirical instances for whom the plausibility of the outcome can be evaluated by the researcher.

Coverage	Metric that shows how much of the empirical evidence is accounted for by a condition or conjunction
Deviant case	Case that holds membership in the solution but not in the outcome . For fuzzy sets, this means that membership scores in the solution exceed 0.5 and membership scores in the outcome are below 0.5.
Directional expectation	Expectation derived from theoretical or substantive knowledge whether the presence or absence of a condition should be associated with the outcome of the analysis. The intermediate solution allows for the specification of directional expectations for any number of conditions.
Equifinality	Where multiple paths comprised of individual conditions or combinations of conditions independently lead towards the same outcome.
Easy counterfactuals	Logical remainders that are simplifying (and which thus contribute to a less complex solution) and for which theoretical and substantive knowledge suggests the presence of the outcome.
Enhanced Standard Analysis (ESA)	Analytical refinement of the standard analysis (Ragin 2008), which excludes logical remainders that rest on untenable assumptions (Schneider and Wagemann, 2013).
Fuzzy sets	Sets that allow for graded membership with scores ranging from 0 to 1. Fuzzy sets express qualitative and quantitative differences, distinguishing between levels of membership in a set, with scores above 0.5 being in and below 0.5 being outside the set.
Fuzzy-set QCA (fsQCA)	Analysis conducted with fuzzy sets, where set-membership scores in the conditions and/or the outcome take on values from 0 to 1.
Good counterfactuals	Counterfactuals that do not rest on untenable assumptions and which may or may not contribute to parsimony (Schneider and Wagemann 2012). See also plausible counterfactuals.
Implausible counterfactuals	Logical remainders that are not plausible as counterfactuals because: (1) theoretical and substantive knowledge does not suggest the presence of the outcome, (2) the respective configuration is contradictory, (3) empirically impossible, or (4) conflicts with a statement of necessity.
Impossible counterfactuals	Logical remainders that entail a conjunction of conditions that is not possible in logical terms or by what is known about the world.
Incoherent counterfactuals	Logical remainders that conflict with a previously identified necessary condition.

Intermediate solution	One of three solution types. The intermediate solution results from the Boolean minimization of the truth table rows that meet the consistency and frequency thresholds specified by the researcher. Logical remainders are allowed in the pairwise Boolean minimization based on the directional expectations specified by the researcher.
Intersection	A combination of two or more conditions. See Boolean AND.
INUS condition	Insufficient but necessary part of a condition that is itself unnecessary but sufficient for the result (Mackie, 1965).
Irrelevant cases	Cases where either (1) the outcome or the non-outcome is deemed impossible by what is known about the world, or which are (2) substantively unimportant in light of a study's research aims.
Limited diversity	Phenomenon that occurs when the number of logically possible configurations exceeds the number of empirical cases. Hence, the extent to which there is limited diversity in a given analysis can be seen from the number of logical remainder rows in the truth table.
Logical remainder	Truth table row that is not associated with any empirical case.
Membership score (Set membership value)	Numerical representation of case membership in a given set. Crisp-set membership can assume scores of 1 and 0, while fuzzy set membership can also take on decimal scores in between these values.
Mill's methods	Methods of scientific inquiry developed by John Stuart Mill in <i>A System of Logic</i> (1843). Mill's methods include the method of agreement and method of difference, as well as the lesser-known method of residues and method of concomitant variations, and the joint method of agreement and difference. QCA builds on a systematic application of the joint method.
Model	Term used for the entirety of conditions used in a truth table analysis.
Model ambiguity	The phenomenon that, depending on the structure of the truth table and the assumptions made, several logically equivalent solution terms may be derived from the same empirical data (Baumgartner and Thiem, 2017).
Multi-method research	The combination of two or more research methods to gain inferential leverage. In the set-theoretic context, multi-method research designs typically entail the combination of QCA, as a method for cross-case analysis, with process tracing to conduct within-case analysis, and specifically, for the identification of causal mechanisms. This does not preclude the combination of QCA with other qualitative and/or quantitative methods.

Necessary Condition Analysis (NCA)	A distinct methodology for the identification of necessary conditions in data sets. Rather than working with the metric of consistency, as QCA does, NCA employs different levels of conditions, as in “level X is necessary for level Y” (Dul, 2016; Vis and Dul, 2018).
Necessary condition	A necessary condition means that a factor is always present when the outcome of interest occurs. Put differently, the outcome does occur without the presence of the necessary condition. From a theory perspective, we can say that necessary conditions explain failure because they are a prerequisite for a phenomenon to occur.
Negation	See Boolean NOT.
Negative case	Case that does not hold membership in the outcome.
Notation	QCA draws on different notational systems. Depending on a subfield's custom, it may be preferred to use symbols and terms from Boolean algebra, propositional logic, and/or set theory.
Outcome	The phenomenon to be accounted for in the set-theoretic analysis. Similar (but not identical) to dependent variable in statistical approaches.
Parsimonious solution	The parsimonious solution results from the Boolean minimization of the truth table rows that are associated with the outcome and which meet the consistency and frequency thresholds specified by the researcher. The procedure for the parsimonious solution allows all logical remainders to be used in the pairwise minimization. Notably, the parsimonious solution may rest on untenable assumptions.
Path	One configuration in a solution (which typically includes several paths).
Parameters of fit	Metrics to assess set-theoretic relationships in empirical data. The primary measures of fit for QCA are consistency and coverage, which are calculated independently for set-theoretic relations of necessity and sufficiency.
Pathway case	Case that is uniquely covered by one solution path. See also typical case.
Plausible counterfactuals	Logical remainders that meet all of the following criteria: (1) theoretical and substantive knowledge suggests the presence of the outcome, (2) the respective configuration is not contradictory, (3) empirically possible, and (4) does not conflict with a statement of necessity. Antonym: implausible counterfactuals.
Positive case	Case that holds membership in the outcome.
Proportional Reduction in Inconsistency (PRI)	A measure to identify simultaneous subset relations in the analysis of sufficient conditions.

Prime implicants	Boolean expressions that result from the minimization of truth table rows that are associated with the outcome (primitive expressions). Prime implicants are supersets of the primitive expressions they are derived from. The prime implicant chart helps to determine whether any prime implicants are redundant because the entailed information is already covered by other prime implicants. In such a situation, a simpler solution term can be derived by eliminating the redundant prime implicants.
Primitive expression	Expression that represents a truth table row associated with the outcome. See also prime implicants.
Probability theories of causation	Perspectives on causation where a potential cause is seen as a probability raiser for the occurrence of its effect.
Raw coverage	Metric to assess how much of the empirical evidence is accounted for by a given solution path. See also solution coverage and unique coverage.
Recipe	A configuration that is sufficient for the outcome. In that sense, the term is used interchangeably with path and pathway. But recipe is also used to denote entire solutions.
Regularity theories of causation	Perspectives on causation where a potential cause appears repeatedly and in a regular fashion.
Relevance of Necessity (RoN)	Metric to assess whether a condition that fulfils the formal criteria for necessity may be a trivial necessary condition (Schneider and Wagemann 2012).
Relevant cases	Cases where (1) the outcome and the non-outcome are deemed possible by what is known about the world, (2) and which are substantively important in light of a study's research aims. As a general principle, only relevant cases should be included for case selection. Antonym: irrelevant cases. See also impossible cases.
Robustness tests	Procedures to establish the extent to which the results of the set-theoretic analysis are conditional upon specific analytical choices, such as case selection criteria, calibration thresholds, or decisions made throughout the analysis, including consistency and frequency levels, and the treatment of logical remainders.
Scope condition	Criterion that confines the selection of cases on the basis of theoretical or substantive considerations.
Set	A group of elements that share certain characteristics.
Set relations	QCA evolves around set relations of necessity and sufficiency. See necessary condition and sufficient condition.

Set theory	Unifying theory of mathematics. QCA draws on set theory to analyse social phenomena and the set relations between them.
Simplifying assumptions	Logical remainders that are treated as if they were sufficient for the outcome when deriving the parsimonious and/or intermediate solution. Called simplifying because they simplify the resultant solution and rest on assumptions about counterfactual cases.
Simultaneous subset relations	Phenomenon that may occur with fuzzy-set data when a configuration is both a subset of the outcome and a subset of the non-outcome. This would be a logical contradiction. However, based solely on the measures of consistency and coverage it would be difficult to determine whether a configuration should be treated as sufficient for the outcome or the non-outcome. To identify such situations, the PRI metric was introduced. See proportional reduction in inconsistency.
Solutions	QCA entails three different solution types. These result from the Boolean minimization procedure and the treatment of logical remainders. See complex solution, parsimonious solution, and intermediate solution.
Solution coverage	Metric that helps to assess how much of the empirical evidence is accounted for by all paths in a given solution. See also raw coverage and unique coverage. Standard analysis. Term used to describe the analytical procedure of deriving a complex solution, parsimonious solution, and intermediate solution (Ragin 2008). See also enhanced standard analysis.
Sufficient condition	A sufficient condition means that whenever a factor is present, the outcome is also present. Hence, we can say that sufficient conditions serve to explain success, as they always lead towards the outcome, often in combination with other factors.
SUIN Condition	A sufficient but unnecessary part of a factor that is insufficient but necessary for an outcome (Mahoney et al. 2009).
Trivialness	A condition or configuration that fulfils the criteria for set relations of necessity and/or sufficiency, but which constitutes a trivial finding. See also relevance of necessity.
Truth table	The truth table shows the number of possible combinations of conditions and the empirical distribution of cases across those configurations. The number of possible rows equals 2^k , where k is the number of conditions included in a given study. The truth table further indicates how consistent the set-theoretic relationship of sufficiency is for each row.
Truth table algorithm	The algorithm used for the Boolean minimization and the construction of QCA solution terms. The standard remains the Quine-McCluskey (QMC) algorithm,

but this has been complemented by an enhanced version (eQMC) and the Consistency Cubes algorithm (Duşa 2018).

Truth table analysis	Analytical procedure that involves the Boolean minimization of configurations that are sufficient for the outcome, based on consistency and frequency thresholds specified by the researcher. The truth table analysis yields different solution terms, depending on the treatment of logical remainders.
Two-step approach	QCA variant that splits up the analysis into separate truth table procedures based on the distinction between remote and proximate conditions (Schneider and Wagemann 2006).
Typical case	Case that holds membership in the solution and the outcome and where set membership scores in the latter exceed those in the former.
Unique coverage	Metric that helps to assess how much of the empirical evidence is accounted for by a given solution path. See also solution coverage and raw coverage.
XY Plot	Visual representation of set relations between fuzzy sets (degrees of membership).

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APPENDIX 1 FINDINGS FROM SCOPING REVIEW

Search Terms	1960-90	'91-2000	2001-10	2011-20	Totals
Collaborative partnership(s)	314	4,170	14,900	17,000	36,384
Community Partnership(s)	888	7,920	17,800	5,680	32,288
Collaborative network(s)	288	1,700	11,600	17,900	31,488
Interorganizational Collaboration(s)	210	1,220	9,190	16,700	27,320
Interorganizational Relations	2,500	2,980	7,170	11,600	24,250
Collaborative Governance	68	397	4,180	16,800	21,445
Interagency collaboration(s)	754	2,800	6,550	10,900	21,004
Cross-sectoral collaboration(s)	20	292	2,590	13,100	16,002
Interorganizational Network(s)	786	1,280	4,730	8,780	15,576
Interorganizational Cooperation	508	1,030	3,850	6,860	12,248
Multi-sectoral collaboration(s)	30	214	1,090	3,410	4,744
Governance network(s)	23	264	3,170	12,700	16,157
Collaborative network(s)	348	1,790	10,300	17,800	30,238

Appendix 2 List of Articles reviewed

Authors	Title	Source
Andrews, Rhys; Entwistle, Tom	Does Cross-Sectoral Partnership Deliver? An Empirical Exploration of Public Service Effectiveness, Efficiency, and Equity	2010; Journal of Public Administration Research and Theory, vol 20, issue 3, pp 679-701
Atouba, Y.C. and Shumate, M.D.	Meeting the Challenge of Effectiveness in Nonprofit Partnerships: Examining the Roles of Partner Selection, Trust, and Communication.	2019; Voluntas: International Journal of Voluntary and Nonprofit Organizations, pp.1-15.
Baker, Ellen; Kan, Melanie; Stephen T.T. Teo	Developing a collaborative network organization: leadership challenges at multiple levels	2011; Journal of Organizational Change Management, vol 24, issue 6 pp 853-875
Barile, J.P., Darnell, A.J., Erickson, S.W. and Weaver, S.R.	Multilevel Measurement of Dimensions of Collaborative Functioning in a Network of Collaboratives that Promote Child and Family Well-Being	2012; American Journal of Community Psychology, vol 49(1-2), pp.270-282.
Barrutia, J.M. and Echebarria, C.,	Public managers' attitudes towards networks: different motivations, different attitudes.	2021; Public Management Review, 23(7), pp.1006-1031.
Barrutia, J.M. and Echebarria, C.,	Comparing three theories of participation in pro-environmental, collaborative governance networks.	2019; Journal of environmental management, 240, pp.108-118.
Bowman, A.O.M. and Parsons, B.M.,	Making connections: Performance regimes and extreme events. P	2013; Public Administration Review, 73(1), pp.63-73.
Brennan, L.K., Brownson, R.C. and Hovmand, P.,	Evaluation of Active Living by Design: implementation patterns across communities.	2012; American Journal of Preventive Medicine, vol 43(5), issue 5, pp S351-366
Brewster, A. L.; Tan, A. X.; Yuan, C. T.	Development and application of a survey instrument to measure collaboration among health care and social services organizations	2019; Health Services Research, vol 54, issue 6, pp 1246-1254
Cepiku, D., Giordano, F., Mastrodascio, M. and Wang, W.,	What drives network effectiveness? A configurational approach.	2020; Public Management Review, pp.1-25.
Chapman, Carrie L; Varda, Danielle M	Nonprofit Resource Contribution and Mission Alignment in Interorganizational, Cross-Sector Public Health Networks	2017; Nonprofit and Voluntary Sector Quarterly, vol 46, issue 5, pp 1052-1072
Chen, Bin	Antecedents or Processes? Determinants of Perceived Effectiveness of Interorganizational Collaborations for Public Service Delivery	2010; International Public Management Journal, vol 13, issue 4, pp 381-407
Chen, Bin; Graddy, Elizabeth A.	The Effectiveness of Nonprofit Lead-Organization Networks for Social Service Delivery	2010; Nonprofit Management & Leadership, vol 20, issue 4, pp 405-422
Choi, Cheon Geun; Choi, Sang Ok	Collaborative Partnerships and Crime in Disorganized Communities	2012; Public Administration Review, vol 72, issue 2, pp 228-238
Conner, T.W.,	Exploring the diverse effects of stakeholder engagement on organizational performance.	2017; The American Review of Public Administration, 47(6), pp.634-647.
Cramm, J.M. and Nieboer, A.P.	Relational coordination promotes quality of chronic care delivery in Dutch disease-management programs.	2012; Health Care Management Review, vol 37, issue 4, pp.301-309.
Cristofoli, D. and Markovic, J.	How to make public networks really work: a qualitative comparative analysis.	2016; Public Administration, vol 94 No 1, pp89-110
Cristofoli, D., Markovic, J. and Meneguzzo, M.	Governance, management and performance in public networks: How to be successful in shared-governance networks	2014; Journal of Management & Governance, vol 18, pp77-93
Crooks, Claire V.; Exner-Cortens, Deiner; Siebold, Wendi; Moore, Kami; Grassgreen, Lori; Owen, Patricia; Rausch, Ann; Rosier, Mollie	The role of relationships in collaborative partnership success: Lessons from the Alaska Fourth R project.	2018; Evaluation and Program Planning, vol 67, pp 97-104

Cui, C. and Yi, H.	What drives the performance of collaboration networks: A qualitative comparative analysis of local water governance in China.	2020; International Journal of Environmental Research and Public Health, 17(6), p.1819.
Dietscher, C.	How can the functioning and effectiveness of networks in the settings approach of health promotion be understood, achieved and researched?	2017; Health Promotion International, vol 32, No 1, pp139-148
Douglas, S., Berthod, O., Groenleer, M. and Nederhand, J.	Pathways to collaborative performance: examining the different combinations of conditions under which collaborations are successful.	2020; Policy and Society, vol 14, issue 4, pp 420-444
Edelenbos, J., Klijn, E.H. and Steijn, B.	Managers in governance networks: how to reach good outcomes?.	2011; International Public Management Journal, 14(4), pp.420-444.
Esteve, Marc; Boyne, George; Sierra, Vicenta; Ysa, Tamyko	Organizational Collaboration in the Public Sector: Do Chief Executives Make a Difference?	2013; Journal of Public Administration Research and Theory, pp.1-27.
Fadda, N. and Rotondo, F.	What combinations of conditions lead to high performance of governance networks? A fuzzy set qualitative comparative analysis of 12 Sardinian tourist networks.	2020; International Public Management Journal, vol 33, issue 4, pp 326-344
Fedorowicz, Jane; Sawyer, Steve; Tomasino, Arthur	Governance configurations for inter-organizational coordination: A study of public safety networks	2018; Journal of Information Technology, vol 33, pp326-344
Gazley, B., Chang, W.K. and Bingham, L.B., 2010.	Board diversity, stakeholder representation, and collaborative performance in community mediation centers.	2010; Public Administration Review, 70(4), pp.610-620.
Gazley, Beth	Linking collaborative capacity to performance measurement in government-nonprofit partnerships	2010; Nonprofit and Voluntary Sector Quarterly, pp 53-70
Graddy, Elizabeth A; Chen, Bin;	The Consequences of Partner Selection in Service Delivery Collaborations	2011; The collaborative public manager: New ideas for the twenty-first century; Volume 34, Issue 2, pp 193-203,
Harting, J., Peters, D., Grêaux, K., van Assema, P., Verweij, S., Stronks, K. and Klijn, E.H.,	Implementing multiple intervention strategies in Dutch public health-related policy networks	2019; Health Promotion International; vol 51(7), pp.1051-1078.
Hermansson, H.,	Disaster response in Turkey: Conditions promoting cross-sectoral collaboration and implications for effectiveness.	2019; Administration & Society, vol 40, issue 4, pp 445-460
Herranz, Joaquin	Multilevel Performance Indicators for Multisectoral Networks and Management	2010; American Review of Public Administration, vol 33, issue 2, pp 221-239
Honeycutt, Todd C.; Strong, Debra A.	Using Social Network Analysis to Predict Early Collaboration Within Health Advocacy Coalitions	2012; American Journal of Evaluation, vol 74, issue 6, pp 698-712
Hu, Qian; Knox, Claire Connolly; Kapucu, Naim	What Have We Learned since September 11, 2001? A Network Study of the Boston Marathon Bombings Response	2014; Public Administration Review, vol 11, issue 4, pp 851-869
Jacobsen, Dag Ingvar	Network Context, Trust and Success. Evidence from Regional Governance Networks in Norway	2013; Lex Localis-Journal of Local Self-Government, vol 73, issue 2, pp 355-363
Johansen, Morgen; Leroux, Kelly	Managerial Networking in Nonprofit Organizations: The Impact of Networking on Organizational and Advocacy Effectiveness	2013; Public Administration Review, Vol 26, Issue 4, pp 408-420
Jones, J. and Barry, M	Exploring the relationship between synergy and partnership functioning factors in health promotion partnerships	2011; Health Promotion International, vol 26, issue 4, pp408-420
Kalesnikaitė, V., 2019. Public Performance & Management Review, 42(4), pp.864-888.	Keeping cities afloat: Climate change adaptation and collaborative governance at the local level.	2019; Public Performance and Management Review, vol 31, issue 3, p 551
Kang, Eunjeong	Intersectoral collaboration for physical activity in Korean Healthy Cities.	2016; Health Promotion International, vol 34, issue 4, pp 549-579
Kapucu, Naim; Demiroz, Fatih	Measuring performance for collaborative public management using network analysis methods and tools	2011; Public Performance & Management Review, vol 43 , issue 3, pp 312-330
Kapucu, Naim; Garayev, Vener	Designing, Managing, and Sustaining Functionally Collaborative Emergency Management Networks	2013; American Review of Public Administration, vol 37, issue 1, pp 104-133

Kapucu, Naim; Garayev, Vener; Wang, Xiaohu	Sustaining Networks in Emergency Management; A Study of Counties in the United States	2013; Public Performance & Management Review, vol 37, issue 1, pp104-133
Keast, R. and Mandell, M.P.	Network performance: A complex interplay of form and action.	2013; International Review of Public Administration, vol 18(1), pp.77-93.
Keast, R., and Mandell, M.P.	The collaborative push: Moving beyond rhetoric and gaining evidence	2014; Journal of Management and Governance, vol 27 (4)
Kegler, M.C. and Swan, D.W.,	Advancing coalition theory: the effect of coalition factors on community capacity mediated by member engagement.	2012; Health Education Research, vol 23, issue 3, pp 609-630
Kelman, Steven; Hong, Sounman; Turbitt, Irwin	Are There Managerial Practices Associated with the Outcomes of an Interagency Service Delivery Collaboration? Evidence from British Crime and Disorder Reduction Partnerships	2013; Journal of Public Administration Research and Theory: J-PART; vol 19, issue 4, pp 427-452
Kerret, Dorit;Menahem, Gila	Many Hands Make Light Work: The Role of Collaborative Management in Improving Environmental Information Management by Local Authorities	2016; International Public Management Journal, Vol 27, Issue 4, pp 676–691
Klaster, E., Wilderom, C.P.M. and Muntslag, D.R., 2017. .,	Balancing relations and results in regional networks of public-policy implementation	2017; Journal of Public Administration Research and Theory, vol 27, issue 4, pp676-691
Klijn, E.H., Sierra, V., Ysa, T., Berman, E., Edelenbos, J. and Chen, D.Y.,	The influence of trust on network performance in Taiwan, Spain, and the Netherlands: A cross-country comparison	2016. International public management journal, 19(1), pp.111-139.
Klijn, E.H., Steijn, B., Edelenbos, J. and Vermeeren, B.	Steering for social outcomes in governance networks: The effects of participation and network management.	2011; In New steering concepts in public management (Vol. 21, pp. 165-183).
Klijn, Erik-Hans; Edelenbos, Jurian; Steijn, Bram;	Trust in governance networks: Its impacts on outcomes	2010; Administration & Society, vol 88, issue 4, pp 1063-1082
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Koontz, T.M. and Newig, J.	From planning to implementation: Top-down and bottom-up approaches for collaborative watershed management.	2014; Policy Studies Journal, 42(3), pp.416-442. vol 26, issue 1, pp 1-6
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Littlecott, H. J.; Fox, K. R.; Stathi, A.; Thompson, J. L.	Perceptions of success of a local UK public health collaborative.	2017; Health Promotion International, vol 18, issue 8, pp 1163-1217
Lucidarme, Steffie; Cardon, Greet; Wasem, Annick	A Comparative study of Health promotion networks - Configurations of determinants for network effectiveness	2016; Public Management Review, Vol 18, p1
Madsen, Stine Bligaard; Bureau, Viola	Relational coordination in inter-organizational settings. How does lack of proximity affect coordination between hospital-based and community-based healthcare providers?	2018; International Journal of Integrated Care (IJIC), Vol 70, issue 2, pp 279-288
McGuire, Michael; Silvia, Chris	The Effect of Problem Severity, Managerial and Organizational Capacity, and Agency Structure on Intergovernmental Collaboration: Evidence from Local Emergency Management	2010; Public Administration Review, Vol 20, pp i125-i141
Milward, H. Brinton; Provan, Keith G.; Fish, Amy; Isett, Kimberley R.; Huang, Kun	Governance and Collaboration: An Evolutionary Study of Two Mental Health Networks	2010; Journal of Public Administration Research and Theory, Vol 17, issue 3, pp 380-403
Mischen, Pamela A.	Collaborative Network Capacity	2015; Public Management Review, Vol 16, issue 2, pp135-147

Misener, Katie; Doherty, Alison;	Understanding capacity through the processes and outcomes of interorganizational relationships in nonprofit community sport organizations	2013; Sport Management Review, Vol 25, issue 6, pp 1483-1508
Ngamassi, Louis; Maitland, Carleen; Tapia, Andrea H.	Humanitarian Interorganizational Information Exchange Network: How Do Clique Structures Impact Network Effectiveness?	2014; VOLUNTAS: International Journal of Voluntary and Nonprofit Organizations, pp.1-15.
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Nohrstedt, Daniel	Does Adaptive Capacity Influence Service Delivery? Evidence from Swedish Emergency Management Collaborations	2015; Public Management Review, Vol 48, issue 3, pp 232-244
Nohrstedt, Daniel	Networking and Crisis Management Capacity: A Nested Analysis of Local-Level Collaboration in Sweden	2018; American Review of Public Administration, vol 41, issue 3, pp 596-619
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Noonan, Patricia M.; McCall, Zach A.; Zheng, Chunmei; Gaumer Erickson, Amy S.	An analysis of collaboration in a state-level interagency transition team.	2012; Career Development and Transition for Exceptional Individuals, vol 35, issue 3, p143
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Padot, Rebecca H	How Government and Community Nonprofit Collaboration and Non-Collaboration Affects Public Sector Outcomes	2019; International Journal of Public Administration, vol 42, issue 13, pp1084-1094
Palinkas, Lawrence A; Fuentes, Dahlia; Finno, Megan; Garcia, Antonio R; Holloway, Ian W; Chamberlain, Patricia;	Inter-organizational collaboration in the implementation of evidence-based practices among public agencies serving abused and neglected youth	2014; Administration and Policy in Mental Health and Mental Health Services Research, vol 41, issue 1, pp 74-85
Pallotti, Francesca; Tubaro, Paola; Lomi, Alessandro	How Far do Network Effects Spill Over? Evidence from an Empirical Study of Performance Differentials in Interorganizational Networks	2015; European Management Review, vol 12, issue 3, pp189-208
Peters, D.T., Klijn, E.H., Stronks, K. and Harting, J.	Policy coordination and integration, trust, management and performance in public health-related policy networks: a survey.	2017; International Review of Administrative Sciences vol 83(1):200–222,
Raab, Joerg; Mannak, Remco S.; Cambre, Bart	Combining Structure, Governance, and Context: A Configurational Approach to Network Effectiveness	2015; Journal of Public Administration Research and Theory, vol 25, issue 2, pp 479-511
Ramadass, Shila Devi; Sambasivan, Murali; Xavier, John Antony	Critical factors in public sector collaboration in Malaysia: Leadership, interdependence, and community	2017; International Journal of Public Sector Management, vol 30, issue 5, pp 487-502
Retrum, Jessica H.; Chapman, Carrie L.; Varda, Danielle M.	Implications of Network Structure on Public Health Collaboratives	2013; Health Education & Behavior, vol 40, pp 135-235
Saban, L.I.,	Entrepreneurial brokers in disaster response network in Typhoon Haiyan in the Philippines.	2015; Public Management Review, 17(10), pp.1496-1517.

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Shumate, Michelle;Fu, Jiawei Sophia;Cooper, Katherine R	Does Cross-Sector Collaboration Lead to Higher Nonprofit Capacity?: JBE JBE	2018; Journal of Business Ethics, vol 150, issue 2, pp 385-399
Stadtler, L. and Karakulak, Ö.	Broker Organizations to Facilitate Cross-Sector Collaboration: At the Crossroad of Strengthening and Weakening Effects.	2020; Public Administration Review, vol 80(3), pp.360-380.
Tong, Catherine E;Franke, Thea;Larcombe, Karen;Joanie Sims Gould	Fostering Inter-Agency Collaboration for the Delivery of Community-Based Services for Older Adults	2018; British Journal of Social Work, vol 48, issue 2, pp 390-411
Tønnesen, A.,	Democratic anchorage and performance: Comparing two network approaches to land-use and transport-system development.	2015; Local Government Studies, 41(5), pp.653-672.
Ulibarri, Nicola	Collaboration in federal hydropower licensing: Impacts on process, outputs, and outcomes	2015; Public Performance and Management Review, vol 38, issue 4, pp578-606
Uster, Anna;Beerli, tai;Vashdi, Dana	Don't push too hard. Examining the managerial behaviours of local authorities in collaborative networks with nonprofit organisations	2019; Local Government Studies, vol 45, issue 1, pp 124-145
van Meerkerk, ngmar;Edelenbos, Jurian	The effects of boundary spanners on trust and performance of urban governance networks: findings from survey research on urban development projects in the Netherlands	2014; Policy Sciences, vol 47, issue 1, pp 3-24
Varda, Danielle M.; Retrum, Jessica H.	Collaborative Performance as a Function of Network Members' Perceptions of Success	2015; Public Performance & Management Review, vol 38, issue 4, pp 632-653
Varda, Danielle M; Retrum, Jessica H;	An exploratory analysis of network characteristics and quality of interactions among public health collaboratives	2012; Journal of Public Health Research, vol 1, issue 2, p 170
Vasavada, T.	Managing disaster networks in India.	2013; Public Management Review, 15(3), pp.363-382.
Verweij, S., Klijn, E.H., Edelenbos, J. and Van Buuren, A.	What makes governance networks work? A fuzzy set qualitative comparative analysis of 14 Dutch spatial planning projects.	2013; Public Administration, vol 91, issue 4, pp.1035-1055.
Wang, Weijie	Exploring the Determinants of Network Effectiveness: The Case of Neighborhood Governance Networks in Beijing	2016; Journal of Public Administration Research and Theory, Vol 26, Issue 2, pp 375–388,
Wasem, Annick; Lucidarme, Steffie	Pitfalls and Challenges for Trust and Effectiveness in Collaborative Networks	2014; Public Management Review, vol 16, issue 5, pp 733-760
Wasis, Cameron; Kernoghan, Alison; Riley, Barbara; Popp, Janice; Best, Allan; Milward, H Brinton;	Outcomes of Interorganizational Networks in Canada for Chronic Disease Prevention: Insights From a Concept Mapping Study, 2015	2015; Preventing chronic disease, vol 12, e199, pp1-9
Witesman, Eva;Heiss, Andrew	Nonprofit Collaboration and the Resurrection of Market Failure: How a Resource-Sharing Environment Can Suppress Social Objectives	2017; VOLUNTAS: International Journal of Voluntary and Nonprofit Organizations, pp.1-15. vol 28
Wrobel, Sharon	From Threat to Opportunity: A Head Start Program's response to State funded Pre-K	2012; Journal of Health and Human Services Administration, vol 35, issue 1, pp 74-105
Yi, H.,	Network structure and governance performance: What makes a difference?.	2018; Public Administration Review, 78(2), pp.195-205.
Yodsuwan, Chachaya;Butcher, Ken	Determinants of Tourism Collaboration Member Satisfaction in Thailand	2012; Asia Pacific Journal of Tourism Research, vol 17, issue 1, pp63-80
Ysa, T., Sierra, V. and Esteve, M.,	Determinants of network outcomes: The impact of management strategies.	2014; Public Administration, 92(3), pp.636-655.

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APPENDIX 3 FINDINGS FROM SLR

Authors	Word used (Q1)	Methodology (Q2)	Type of measurement (Q3)	Level of Analysis (Qs2/3)	Outcome measure (Q3)	Key Findings (Q4)
Andrews, Rhys; Entwistle, Tom	Cross-sectoral partnerships	Quantitative - survey and secondary data analysis	Objective	Network and Community	Public service effectiveness, efficiency, equity	Public-public partnership delivers better outcomes; public-private partnership has mixed results.
Atouba, Y.C. and Shumate, M.D.	Interorganizational collaboration and partnerships	Quantitative - Surveys	Perceived Effectiveness	Network	Partnership effectiveness	Trust and communication are critical for effective nonprofit partnerships.
Baker, Ellen;Kan, Melanie;Stephen T.T. Teo	Collaborative networks	Qualitative - Single Case study	Process Measures	Network	Site performance, collaboration activities	Effective leadership at all levels is crucial for collaborative network success.
Barile, J.P., Darnell, A.J., Erickson, S.W. and Weaver, S.R.	Interorganizational collaboration	Quantitative - Survey	Process Measures	Individual and Network levels	Collaborative functioning	Role, attendance, and leader tenure impact collaborative functioning.
Barrutia, J.M. and Echebarria, C.,	Collaborative networks	Quantitative	Perceived Effectiveness	Individual	Participation attitudes and free-rider behaviors	Organizational-level internal motivations and managers' identification with the network are more powerful than external rewards for preventing free-rider behaviors.
Barrutia, J.M. and Echebarria, C.,	Collaborative governance networks	Quantitative - Structural Equation Modelling	Process measure	Network	Participation attitude in collaborative governance networks	Three variables (network resources, image enhancement, and identification) explain attitudes toward network participation. Identification has the strongest influence, creating a motivational mechanism merging personal and network identity.
Bowman, A.O.M. and Parsons, B.M.,	Collaborative networks	Quantitative - Generalized estimating equation (GEE) modelling,	Perceived Effectiveness	Community	Functional network performance	Collaboration is not uniform - variation due to capacity and vulnerability.

Brennan, L.K., Brownson, R.C. and Hovmand, P.,	Partnerships	Mixed- methods, participatory evaluation design, qualitative and quantitative.	Process Measures	Network	Implementation patterns	Community partnerships with more preparation activities implemented more active living initiatives.
Brewster, A. L.; Tan, A. X.; Yuan, C. T.	interorganizational collaboration	Quantitative Survey	Process Measures	Community	Collaboration strategies, collaboration behaviors	Aligning Strategy is crucial for effective health care collaboration.
Cepiku, D., Giordano, F., Mastrodascio, M. and Wang, W.,	Network and public network	QCA Survey and semi- structured interviews and fuzzy set QCA	Objective	Network and Community	Network effectiveness	Network management is key to network effectiveness.
Chapman, Carrie L;Varda, Danielle M	Goal-directed networks	Quantitative - pre-/posttest research design	Objective Measures, Perceived Effectiveness	Organizational and network	Resource contributions, mission alignment	Nonprofits contribute more resources and align better with public health network missions.
Chen, Bin	Interorganizational collaborations	Mixed Methods - interviews, document review and survey	Perceived Effectiveness	Organizational and network	Perceived collaboration outcomes	Resource acquisitions, organizational legitimacy, partner characteristics, and preconditions affect perceived collaboration outcomes.
Chen, Bin; Graddy, Elizabeth A.	Interorganizational relationships	Quantitative survey. fixed- effect and random-effect models	Perceived Effectiveness	Organizations	Client outcomes, organizational learning, inter organizational relationships	Partnerships based on programmatic needs improve client outcomes and relationships.
Choi, Cheon Geun; Choi, Sang Ok	Collaborative partnerships	Quantitative regression analysis	Objective	Network	Crime rates	Partnerships reduce crime in disorganized communities.

Conner, T.W.,	Collaborative partnership	Quantitative - Regression analysis	Perceived Effectiveness	Network	Perceived improvements in organizational performance	Higher levels of collaboration positively relate to perceived improvements in substantive outcomes for Native American students but less impact on process-oriented outcomes
Cramm, J.M. and Nieboer, A.P.	Relational Coordination	Quantitative - survey	Objective Measures, Process Measures	Network (Collaborative partnerships)	Chronic illness care delivery	Enhancing relational coordination among disease-management professionals improves chronic care delivery.
Cristofoli, D. and Markovic, J.	Public Networks	QCA	Objective	Network	Network performance	Formalized mechanisms and network administrators are key for successful shared-governance networks.
Cristofoli, D., Markovic, J. and Meneguzzo, M.	Network	QCA	Process Measures	Network	Network performance	Formalized coordination and network administrators are key for successful shared-governance networks.
Crooks, Claire V.; Exner-Cortens, Deiner; Siebold, Wendi; Moore, Kami; Grassgreen, Lori; Owen, Patricia; Rausch, Ann; Rosier, Mollie	Collaborative Partnerships	Qualitative - Single Case study	Perceived Effectiveness	Individual - participants	Collaborative partnership success	Strong relationships enhance collaborative success.
Cui, C. and Yi, H.	Networking organizational settings; settings approach of Health Promotion (HPSN)	QCA	Objective	Community	Goal achievement	High overall bridging and bonding of social capital and low network density are important determinants of effective collaboration networks.
Dietscher, C.	Collaborative governance	Quantitative - Survey	Objective	Organizational and network	Network functioning and effectiveness	A new framework is needed to study health promotion network effectiveness.
Douglas, S., Berthod, O., Groenleer, M. and Nederhand, J.	Governance networks	QCA	Perceived Effectiveness	Organizational and network	Collaborative performance	Incentives and institutional design or collaborative processes are key to success.

Edelenbos, J., Klijn, E.H. and Steijn, B.	Governance networks	Quantitative - Survey	Perceived Effectiveness	Individuals - Network Managers	Trust, substantive outcomes	Experienced managers achieve good outcomes (trust and substantive outcome). Network managers employing a large number of management activities achieve good outcomes.
Esteve, Marc; Boyne, George; Sierra, Vicenta; Ysa, Tamyko	Network	Quantitative - Survey	Perceived Effectiveness	Organizations	Extent of interorganizational collaboration	Chief executives' qualifications and self- development influence collaboration extent.
Fadda, N. and Rotondo, F.	Public Safety network	QCA fuzzy set qualitative comparative analysis	Perceived Effectiveness	Network	Network performance	Stakeholder involvement is necessary. Two configurations lead to high network performance: formalized coordination with network complexity, and network complexity with stakeholder involvement and management.
Fedorowicz, Jane; Sawyer, Steve; Tomasino, Arthur	Network Governance	QCA Fuzzy set	Process Measures	Network	Network governance effectiveness	Stakeholder management and digital infrastructure competencies are essential for effective governance.
Gazley, B., Chang, W.K. and Bingham, L.B., 2010.	Government- nonprofit partnerships	QCA	Perceived Effectiveness	Network	Organizational performance	Board diversity and stakeholder representation influence organizational performance. Boundary-spanning activities like network ties and revenue sources are crucial.
Gazley, Beth	Interorganizational relationships Interorganizational collaborations	Quantitative - Ordinary Least squares	Perceived Effectiveness	Network	Performance measurement	Shared goals and investment improve collaborative outcomes.
Graddy, Elizabeth A; Chen, Bin;	Multisectoral networks	Quantitative Survey	Perceived Effectiveness	Organizations	Service delivery effectiveness	Programmatic needs enhance client outcomes; legitimacy and transaction costs impact inter-organizational outcomes.
Harting, J., Peters, D., Grêaux, K., van Assema, P., Verweij, S.,	Cross-sector collaboration	Quantitative (3 surveys) and QCA	Process Measures	Network	Intervention strategies	Multisectoral networks aid implementation but need additional participation and networking efforts.

Stronks, K. and Klijn, E.H.,						
Hermansson, H.,	Public network	Qualitative - Single Case study	Perceived Effectiveness	Network and Community	Cross-sectoral collaboration effectiveness	Trust, pre-existing relations, interdependence, knowledge, and resources facilitate cross-sectoral collaboration during disaster response.
Herranz, Joaquin	Coalitions	Mixed methods comparative case study. (Qualitative and Quantitative)	Objective	Organizations	Network performance	Coordination approaches affect multilevel network performance.
Honeycutt, Todd C.; Strong, Debra A.	Interorganizational coordination and collaboration	Quantitative	Process Measures	Network	Early collaboration	Social network analysis is useful for predicting early collaboration.
Hu, Qian; Knox, Claire Connolly; Kapucu, Naim	Interorganizational coordination and collaboration	Mixed methods Content analysis and SNA	Objective Measures, Process Measures	Organizations	Disaster response effectiveness	Long-term planning and communication enhance disaster response.
Jacobsen, Dag Ingvar	Governance networks	Quantitative - Survey	Perceived Effectiveness, Process Measures,	Network	Network outcomes, trust	Contextual factors significantly affect network outcomes, particularly problem-solving and external influence.
Johansen, Morgen; Leroux, Kelly	Intersectoral partnerships	Quantitative - Survey	Perceived Effectiveness	Organizations	Organizational and advocacy effectiveness	Political networking increases advocacy effectiveness, community networking increases organizational effectiveness.
Jones, J. and Barry, M	Cross sectoral Collaboration or collaborative activity	Quantitative - survey.	Perceived Effectiveness	Network	Partnership synergy	Trust and leadership are critical for achieving partnership synergy.
Kalesnikaitė, V., 2019. Public Performance &	Collaborative governance	Quantitative - logistic regression	Objective Measures,	Network and Community	Policy outputs and outcomes	Collaboration enhances policy outputs and outcomes for climate change adaptation.

Management Review, 42(4), pp.864-888.		effect of collaborative activity on the community rating.	Process Measures,			
Kang, Eunjeong	Intersectoral collaboration	Quantitative	Process Measures	Community	Level of intersectoral collaboration	Healthy Cities have higher collaboration rates, but support activities are mainly administrative. Legal and financial supports needed to strengthen collaboration.
Kapucu, Naim; Demiroz, Fatih	Network and networked governance	Social Network Analysis	Objective	Network	Network performance	Network performance varies between planned and actual response networks.
Kapucu, Naim; Garayev, Vener	Interorganizational relationships; networked governance	Social Network Analysis	Process Measures	Network	Network sustainability, network relationships	Relationships and ICT utilization enhance sustainability; complexity does not impact sustainability.
Kapucu, Naim; Garayev, Vener; Wang, Xiaohu	Network - differentiated between cooperation, coordination and collaboration	Quantitative - survey	Perceived Effectiveness	Network	Network sustainability, interorganizational trust	Goal convergence, ICT utilization, and interorganizational trust sustain emergency management networks.
Keast, R. and Mandell, M.P.	Collaborations	QCA	Perceived Effectiveness	Individual and Network levels	Network performance	Network form and human dynamics determine network performance.
Keast, R., and Mandell, M.P.	Community coalitions	QCA	Process Measures	Network	Collaborative structure, mechanisms	Effective collaboration requires new ways of working, managing, and leading. Intense, interdependent relationships are key.
Kegler, M.C. and Swan, D.W.,	Partnerships and interorganizational collaborations	Quantitative	Perceived Effectiveness	Community	Community capacity (new skills, sense of community, social capital)	Member engagement is key to enhancing community capacity through coalitions.
Kelman, Steven; Hong, Sounman; Turbitt, Irwin	Collaborative management	Quantitative - survey.	Objective Measures, Process Measures	Individual	Crime reduction, collaboration management practices	Effective management practices improve outcomes only under favorable conditions.

Kerret, Dorit;Menahem, Gila	Collaborative Management	Quantitative - survey; two-step multiple regression analyses	Objective	Organizations	Environmental outputs	Collaborative management enhances local environmental performance.
Klaster, E., Wilderom, C.P.M. and Muntslag, D.R., 2017. .,	Networks	QCA	Objective Measures, Process Measures	Network	Goal attainment, network relations	Mature networks demonstrate better balance between network relations and goal attainment. Network governance is key.
Klijn, E.H., Sierra, V., Ysa, T., Berman, E., Edelenbos, J. and Chen, D.Y.,	Governance networks	Quantitative - Structural Equation Modelling	Perceived Effectiveness	Network	Trust, network performance	Trust enhances network performance. Network management strategies positively impact performance and trust.
Klijn, E.H., Steijn, B., Edelenbos, J. and Vermeeren, B.	Governance networks	Quantitative - structural equation modelling (SEM)	Perceived Effectiveness	Network	9 different outcome measures - Innovation, integrated solution, contribution of stakeholders, problem-solving capacity, robustness, efficiency, conflict resolution, network-building and stakeholder satisfaction.	Higher levels of stakeholder participation and active network management result in higher trust and broader societal outcomes.
Klijn, Erik-Hans; Edelenbos, Jurian; Steijn, Bram;	Governance networks	Quantitative	Perceived Effectiveness	Network	Trust, project outcomes	Trust influences outcomes. Network management improves trust levels.
Klijn, Erik-Hans; Steijn, Bram; Edelenbos, Jurian;	Governance networks	Quantitative - survey	Perceived Effectiveness, Process Measures,	Network	Network management strategies, outcomes	Trust enhances network performance. Network management strategies also positively associated with performance and trust.
Koontz, T.M. and Newig, J.	Interorganizational collaboration	Mixed methods - case study and survey data.	Objective Measures, Process Measures,	Network	Implementation of collaborative recommendations,	Resources and networks are crucial for implementation, regardless of approach.

					environmental improvements	
Korthagen, I. and Klijn, E.H.,	Network	Quantitative - Structural Equation Modelling	Perceived effectiveness	Network	5 outcome measures - Innovative character, Integral nature of solution, Effectiveness of solutions, Effectiveness in the future and the relationship between costs and benefits	Commercialized news and mediatized politics negatively affect trust relations between network actors and perceived network performance.
Langabeer, J. R.; Champagne-Langabeer, T.; Helton, J. R.; Segrest, W.; Kash, B.; DelliFraine, J.; Fowler, R.	Multi-sector collaboration and the collaborative	Quantitative - pre-/posttest research design, applied median tests of differences	Objective	Network	Treatment times	Collaboration reduces treatment times and improves community health outcomes.
Littlecott, H. J.; Fox, K. R.; Stathi, A.; Thompson, J. L.	Collaborative public networks	Mixed methods - quantitative survey and qualitative interviews	Perceived Effectiveness	Network	Perceived success, sustainability	Multisectoral collaboration can be successful despite differing needs of contributors. Early involvement of practitioners enhances goals and sustainability.
Lucidarme, Steffie; Cardon, Greet; Wasem, Annick	Collaborative Public Networks	QCA	Process Measures	Network	Network effectiveness	Structural and managerial determinants are dominant in impacting network effectiveness.
Madsen, Stine Bligaard; Burau, Viola	Relational Coordination	Qualitative - Single Case study	Process Measures	Organizations	Coordination quality	Strong informal relationships coordinate core tasks effectively. Structural challenges hinder non-core task coordination.
Mcguire, Michael; Silvia, Chris	Intergovernmental collaboration	Quantitative	Objective Measures, Process Measures,	Organizations	Intergovernmental collaboration, problem severity	Problem severity, managerial skills, organizational capacity, and agency structure influence collaboration extent and effectiveness.

Milward, H. Brinton; Provan, Keith G.; Fish, Amy; Isett, Kimberley R.; Huang, Kun	Collaborative networks	QCA	Process Measures	Network	Network governance, trust	For-profit governed networks differ from nonprofit governed networks in relationships, trust, and performance.
Mischen, Pamela A.	interorganizational relationships	QCA	Perceived Effectiveness, Process Measures,	Network	Network success	Governance and knowledge management enable networks to use resources effectively.
Misener, Katie; Doherty, Alison;	Interorganizational relationships	Qualitative - Single Case study	Perceived Effectiveness, Process Measures,	Organizations	Relationship processes, program/service quality, operations, community presence	Trust and engagement in relationships improve program quality and community presence.
Ngamassi, Louis; Maitland, Carleen; Tapia, Andrea H.	Interorganizational collaboration	Mixed methods - multiple sources, including surveys, interviews, and online database search	Objective	Network	Network effectiveness	Integration and cliques improve humanitarian network effectiveness.
Nicaise, P., Grard, A., Leys, M., Van Audenhove, C. and Lorient, V.,	Collaboration	Quantitative Survey	Process Measures	Network	Collaboration quality, client-centered care	Client-centered care and leadership enhance collaboration quality.
Nohrstedt, Daniel	Collaboration	Mixed methods - regression analysis and case study	Objective	Network	Goal attainment, public satisfaction with services	Collaboration partners enhance goal attainment; learning and accessibility do not impact service delivery.
Nohrstedt, Daniel	Collaboration; Networking	Quantitative - Survey	Objective Measures,	Organizations	Goal attainment, collaboration	Low levels of networking improve goal attainment; high levels show no additional

			Process Measures			benefits. Stable relationships and clear collaboration terms are crucial.
Nolte, I.M. and Boenigk, S.,	Public-nonprofit partnerships	Qualitative - Single Case study	Perceived Effectiveness	Network	Performance of public-nonprofit partnerships	Communication, trust, and experience are vital inputs; lead organization network is the prevalent governance structure.
Nolte, Isabella M	Public-nonprofit networks	Quantitative - Survey	Perceived Effectiveness	Network	Collaboration outcomes	Collaborative activities improve outcomes for partnerships, individual organizations, and target communities.
Noonan, Patricia M.; McCall, Zach A.; Zheng, Chunmei; Gaumer Erickson, Amy S.	Interagency Collaboration	Mixed methods	Objective Measures, Process Measures,	Network	Network density, collaborative strategies, group cohesion, student outcomes	Significant increase in network density. Collaborative strategies improved transition and student outcomes.
Nowell, Branda	Community collaboratives	Quantitative - Survey	Perceived Effectiveness	Individual and Network levels	Collaborative outcomes	Misalignment in problem understanding hampers collaborative effectiveness.
Ofem Brandon; Arya Bindu; Borgatti, Stephen P	Interorganizational collaborations or a collaborative	Social Network Analysis	Perceived Effectiveness	Network	Collaborative success	Social network properties like structural embeddedness and centrality impact collaborative success.
Opolski, K., Modzelewski, P. and Kocia, A.	Governance networks	Quantitative - Survey	Perceived Effectiveness	Network	Perceived effectiveness of service delivery	Interorganizational trust correlates with perceived effectiveness of service delivery networks.
Padot, Rebecca H	Community nonprofits; Collaboration	QCA	Objective	Individuals/organizations	Public sector outcomes	Collaboration with nonprofits enhances public sector outcomes; blocking nonprofits reduces effectiveness.
Palinkas, Lawrence A; Fuentes, Dahlia; Finno, Megan; Garcia, Antonio R; Holloway, Ian W; Chamberlain, Patricia;	Inter-organizational collaboration	Qualitative - Single Case study	Process Measures	Organizations	Implementation of evidence-based practices	Collaboration enables resource pooling and information exchange for successful implementation.

Pallotti, Francesca; Tubaro, Paola; Lomi, Alessandro	Interorganizational networks	Social Network Analysis	Objective	Organizations	Performance differentials, network effects	Network integration and structural equivalence reduce performance differentials. Membership in multiple sub-groups initially reduces differentials, but high membership leads to divergence.
Peters, D.T., Klijn, E.H., Stronks, K. and Harting, J.	Intersectoral policy networks	Quantitative - Survey	Perceived Effectiveness, Process Measures,	Network	Integrated public health policy, network performance	Management and trust are positively related to integrated public health policy and network performance.
Raab, Joerg; Mannak, Remco S.; Cambre, Bart	Networks; centrally integrated networks	Mixed Methods - Document review and QCA	Objective Measures, Process Measures,	Community	Network effectiveness, stability, resource availability	Effective networks are centrally integrated, stable, and have either financial or administrative resources.
Ramadass, Shila Devi; Sambasivan, Murali; Xavier, John Antony	Collaborations	Quantitative	Perceived Effectiveness	Individuals/organizations	Collaboration outcomes, interdependence	Leadership and community are crucial for successful public sector collaboration.
Retrum, Jessica H.; Chapman, Carrie L.; Varda, Danielle M.	Interorganizational collaboration	Social Network Analysis	Perceived Effectiveness, Process Measures,	Network	Public health collaborative outcomes, network structure	Density positively influences outcomes. Breadth creates consensus challenges.
Saban, L.I.,	Governance networks	Social Network Analysis	Perceived Effectiveness	Network	Coordination in response and relief efforts	Entrepreneurial brokers play a major role in governance networks in disaster response. Strategic use of brokers enhances coordination in disaster management.
Scott, T.	Collaborative governance	Quantitative	Objective Measures, Process Measures,	Network and Community	Environmental outcomes, collaborative governance	Collaborative governance improves environmental outcomes. Management activities are crucial for gains.
Shrestha, M.K.,	Partners / partnership	Quantitative - regression analysis survey	Objective	Network and Community	Project implementation success	Strong relationships with partners improve project implementation success.
Shumate, Michelle; Fu,	Cross-sector social partnership (CSSP)	Quantitative - Hierarchical	Perceived Effectiveness	Network	Nonprofit capacity	Enduring government-nonprofit relationships improve strategic planning capacity. No

Jiawei Sophia;Cooper, Katherine R		multiple regression analysis				systematic relationship between collaboration and overall capacity.
Stadtler, L. and Karakulak, Ö.	Cross-sector collaboration	QCA	Process Measures	Network	Collaborative weakening, facilitation role	Brokers can both strengthen and weaken cross-sector collaboration.
Tong, Catherine E;Franke, Thea;Larcombe, Karen;Joanie Sims Gould	Inter-Agency Collaboration	Mixed Methods - survey and semi-structured interviews	Perceived Effectiveness, Process Measures,	Individual and Network levels	Service objectives, collaboration effectiveness	Shared vision and communication are key for successful inter-agency collaboration.
Tønnesen, A.,	Governance networks	Qualitative - document analysis and qualitative interviews	Objective and Perceived Effectiveness	Network	Implementation of policy, process outcomes	Two governance networks studied - the one with lower stakeholder involvement and smaller structure has faster implementation and resource use, while the other shows strong efforts to mobilize and coordinate a wide set of actors. Both approaches effective, but through different mechanisms.
Ulibarri, Nicola	Collaboration	Quantitative - Survey	Perceived Effectiveness, Process Measures,	Network	Process outcomes, decision-making impacts, environmental and economic changes	Collaboration influences a range of outcomes, with principled engagement being critical for all outcome variables.
Uster, Anna;Beerli, Itai;Vashdi, Dana	Collaborative networks	Quantitative - survey	Process Measures	Organizations	Collaborative network performance	Inclusive governance and financial support improve performance; monitoring-controlling behaviours reduce performance.
van Meerkerk, Ingmar;Edelenbos, Jurian	Public or governance network	Quantitative	Perceived Effectiveness	Network	Trust, network performance	Boundary spanners enhance trust and performance in governance networks.
Varda, Danielle M.; Retrum, Jessica H.	Interorganizational networks	Quantitative	Perceived Effectiveness	Network	Perceptions of success	Trust and resources enhance success perceptions; diversity may hinder them.
Varda, Danielle M; Retrum, Jessica H;	Collaborations and collaboratives	Quantitative Survey and Social network	Perceived Effectiveness	Network	Collaboration outcomes, perceptions of success	Trust and perceived value are crucial for successful public health collaboratives.

		analysis - Hierarchical Linear Modelling (HLM) and regressions				
Vasavada, T.	Networks	Mixed Methods Social Network Analysis and Qualitative interviews	Perceived Effectiveness	Network	Network effectiveness	Trust, participant number, goal consensus, and network-level competencies influence disaster network effectiveness.
Verweij, S., Klijn, E.H., Edelenbos, J. and Van Buuren, A.	Governance networks	QCA fuzzy set qualitative comparative analysis	Perceived Effectiveness, Process Measures,	Network	Stakeholder satisfaction, network management	Network complexity and adaptive management enhance stakeholder satisfaction.
Wang, Weijie	Governance networks	Mixed Methods: SNA, fuzzy set QCA, Linear regression,	Objective	Network and Community	Network effectiveness	Network density and resource munificence are key for small network effectiveness.
Wasem, Annick; Lucidarme, Steffie	Collaborative networks	QCA	Perceived Effectiveness, Process Measures,	Organizational and network	Trust, network effectiveness	Network flexibility and trust are critical for effective networks.
Wasis, Cameron; Kernoghan, Alison; Riley, Barbara; Popp, Janice; Best, Allan; Milward, H Brinton;	Interorganizational networks	Mixed Methods - concept mapping, interviews	Perceived Effectiveness	Network	Network outcomes	Identified nine key outcomes, including enhanced learning and improved collaborative action. Measurement challenges noted.
Witesman, Eva;Heiss, Andrew	Non-profit collaboration	Agent-based Monte Carlo simulation	Objective	Organizations	Economic outcomes, resource-sharing	Encouraging collaboration can lead to inefficiencies, especially if objectives are not commonly shared.

Wrobel, Sharon	Inter-Agency Collaboration	Quantitative - examination of secondary data and survey	Perceived Effectiveness	Network	Service delivery improvement	Enhanced services through collaboration with school districts improved perceptions of success and service delivery.
Yi, H.,	Governance networks	Quantitative	Objective Measures, Process Measures,	Network	Governance performance	High average linkages and clustered relationships improve governance network performance.
Yodsuwan, Chachaya;Butcher, Ken	Collaborations	Quantitative	Perceived Effectiveness	Network	Member satisfaction	Trust, communication quality, and perceived benefits enhance member satisfaction in tourism collaboration.
Ysa, T., Sierra, V. and Esteve, M.,	Networks	Quantitative - Partial least square (PLS) approach to Structural Equation modelling	Perceived Effectiveness	Network	Network outcomes and trust	Management strategies strongly affect network outcomes and enhance trust. Facilitative leadership positively impacts network management and trust, while complexity negatively impacts trust. Managers have significant influence on network dynamics.

CODE	SUBEFF	OBJEFF	GOAL	NORM	MEET	SUPP	INFO	IDEN
1AF	2.00	1.50	8.50	6.00	7.50	7.50	8.00	8.50
1HD	1.75	2.00	7.00	7.00	7.25	7.75	8.00	8.50
2AF	1.50	3.00	7.00	7.50	8.50	7.50	7.50	7.50
2HD	1.25	2.50	6.33	6.00	7.25	6.67	7.67	7.00
3HD	1.64	2.50	7.14	6.42	6.48	6.64	7.00	7.36
4AF	2.20	2.00	8.13	7.20	7.58	8.03	8.40	8.00
4HD	2.33	2.00	8.00	7.60	6.97	8.00	7.77	7.60
5HD	1.67	2.00	6.67	6.53	7.04	7.00	6.67	6.17
6AF	2.00	2.50	8.00	7.33	7.65	8.33	8.33	7.33
7AF	2.33	2.50	8.00	6.50	7.51	8.50	8.00	7.93
8AF	2.50	2.50	7.67	7.33	8.17	8.17	8.17	8.50
8HD	2.00	2.00	6.50	7.00	5.50	6.00	5.50	7.00
11AF	2.75	1.00	7.75	8.25	7.50	8.00	7.75	7.58
11HD	1.50	3.00	8.00	7.00	7.50	5.50	7.50	7.25
12AF	2.50	2.00	8.00	8.00	7.17	8.67	8.67	8.00
13AF	2.33	1.50	9.00	6.17	8.33	8.00	8.67	8.75
14AF	1.00	2.00	6.50	6.00	6.25	7.50	8.00	7.00
17HD	1.67	3.00	6.75	8.13	5.99	7.00	6.83	8.17
18AF	2.00	3.00	7.50	8.00	7.88	8.00	7.50	7.50
18HD	2.00	2.00	7.33	6.67	6.83	7.67	7.33	7.67
19AF	2.30	1.50	8.22	7.56	7.67	8.00	7.89	8.16

19HD	1.40	4.00	6.95	6.40	7.50	6.80	6.40	7.40 ⁵
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APPENDIX 5 RAW DATA RESPONSES TO SURVEY QUESTIONS

How often are the following statements true?	Most of the time		Sometimes		Rarely/ Never	
	AF	HD	AF	HD	AF	HD
If conflicts or disagreements arise, members discuss them openly to find a solution	70%	60%	14%	23%	16%	18%
Different people lead the discussion, and most people contribute equally	64%	30%	31%	56%	5%	13%
Members challenge each other to find better solutions to issues	23%	20%	49%	49%	28%	31%
Members offer support and advice to each other to help solve problems	79%	60%	19%	38%	2%	7%
Members share information freely to increase understanding of issues	86%	60%	14%	30%	0%	6%
Members are primarily focused on the activities carried out by their organisation	68%	60%	29%	36%	3%	5%
Members are encouraged to express their views before a decision is made	79%	70%	18%	21%	4%	9%
Members seem reluctant to tell others what they really think	5%	10%	55%	52%	39%	39%
Many members sit back and let others do the work	9%	20%	54%	56%	38%	22%

Members share the same goals and are committed to working together to achieve them	62%	52%	33%	38%	5%	10%
I feel we are very united as a group and work really well together	55%	30%	41%	57%	5%	14%

APPENDIX 6 CALIBRATION OF CONDITION SETS

Raw GOAL	Calib GOAL	Raw NORM	Calib NORM	Raw MEET	Calib MEET	Raw SUPP	Calib SUPP	Raw INFO	Calib INFO
8.50	0.99	6.00	0.05	7.5	0.78	7.50	0.79	8.00	0.95
7.00	0.49	7.00	0.49	7.25	0.61	7.75	0.89	8.00	0.95
7.00	0.49	7.50	0.81	8.5	0.99	7.50	0.79	7.50	0.74
6.33	0.12	6.00	0.05	7.25	0.61	6.67	0.24	7.67	0.84
7.14	0.59	6.42	0.15	6.48	0.16	6.64	0.23	7.00	0.37
8.13	0.96	7.20	0.64	7.58	0.82	8.03	0.95	8.40	0.99
8.00	0.95	7.60	0.85	6.97	0.41	8.00	0.95	7.77	0.88
6.67	0.26	6.53	0.20	7.04	0.45	7.00	0.45	6.67	0.21
8.00	0.95	7.33	0.72	7.65	0.85	8.33	0.98	8.33	0.98
8.00	0.95	6.50	0.18	7.51	0.78	8.50	0.99	8.00	0.95
7.67	0.87	7.33	0.72	8.17	0.97	8.17	0.97	8.17	0.97
6.50	0.18	7.00	0.49	5.50	0.01	6.00	0.05	5.50	0.01
7.75	0.90	8.25	0.97	7.50	0.78	8.00	0.95	7.75	0.88
8.00	0.95	7.00	0.49	7.50	0.78	5.50	0.01	7.50	0.74
8.00	0.95	8.00	0.95	7.17	0.55	8.67	0.99	8.67	1.00
9.00	1.00	6.17	0.08	8.33	0.98	8.00	0.95	8.67	1.00
6.50	0.18	6.00	0.05	6.25	0.09	7.50	0.79	8.00	0.95

6.75	0.31	8.13	0.96	5.99	0.05	7.00	0.45	6.83	0.28
7.50	0.80	8.00	0.95	7.88	0.92	8.00	0.95	7.50	0.74
7.33	0.71	6.67	0.27	6.83	0.32	7.67	0.86	7.33	0.61
8.22	0.97	7.56	0.83	7.67	0.86	8.00	0.95	7.89	0.92
6.95	0.45	6.4	0.14	7.5	0.78	6.8	0.32	6.4	0.12

APPENDIX 7 TT MINIMISATION FOR THE ABSENCE OF SHARED IDENTITY

Sol	Expressions for outcome ~IDEN	Incl	PRI	CovS	CovU	cases
CS	~GOAL*~NORM*~SUPP*INFO*MEET	0.955	0.824	0.277	0.103	1
	~GOAL*~NORM*~SUPP*~INFO*~MEET	0.983	0.939	0.341	0.168	2
PS	~GOAL*~SUPP*INFO	0.858	0.553	0.341	0.075	1
	~GOAL*~NORM*~SUPP*~MEET	0.967	0.878	0.402	0.000	2
	~GOAL*~NORM*~INFO*~MEET	0.966	0.879	0.370	0.026	2
IS	~GOAL*~NORM*~SUPP*~MEET	0.967	0.883	0.402	0.137	2
	~GOAL*~NORM*~SUPP*INFO	0.934	0.747	0.333	0.067	1

APPENDIX 8 NECESSARY -ABSENCE OF SUBJECTIVE EFFECTIVENESS

Boolean exp	inclN	covN	RoN
~SUPP + ~INFO + ~GOAL + ~NORM + ~IDEN	0.920	0.708	0.761
~SUPP + ~INFO + ~GOAL + ~NORM + ~IDEN	0.916	0.624	0.713
~SUPP + ~GOAL + ~NORM + ~MEET + ~IDEN	0.908	0.630	0.712

For the counterfactual analysis, the absence of subjective effectiveness, all three solutions were derived. The parsimonious solution was either the absence of shared goals or the absence of mutual support produced the absence of subjective effectiveness.

APPENDIX 9 PARSIMONIOUS SOLUTION ABSENCE OF SUBEFF

Boolean expression	inclS	PRI	covS	covU
~GOAL	0.921	0.862	0.626	0.132
~SUPP	0.889	0.804	0.545	0.084
~NORM * ~IDEN	0.961	0.921	0.522	0.038
M1	0.901	0.838	0.768	

APPENDIX 10 PARSIMONIOUS SOLUTION ABSENCE OF SUBEFF

Boolean expression	inclS	PRI	covS	covU
~GOAL	0.921	0.862	0.626	0.132
~SUPP	0.889	0.804	0.545	0.084
~NORM * ~IDEN	0.961	0.921	0.522	0.038
M1	0.901	0.838	0.768	

APPENDIX 11 SUFFICIENCY FOR OBJECTIVE EFFECTIVENESS AND ABSENCE OF OBJECTIVE EFFECTIVENESS

	Sufficient for OBJEFF			Sufficient for ~OBJEFF		
Conditions	Cons.Suf	Cov.Suf	PRI	Cons.Suf	Cov.Suf	PRI
GOAL	0.695	0.722	0.579	0.442	0.848	0.230
NORM	0.783	0.709	0.684	0.413	0.692	0.146
SUPP	0.683	0.722	0.498			
INFO	0.662	0.657	0.528			
MEET	0.772	0.701	0.680			
IDEN	0.707	0.718	0.590			

The absence of shared goals shared information, mutual support and shared identity were sufficient for objective effectiveness, but the coverage for these terms was below 0.5.

APPENDIX 12 SUFFICIENT FOR THE ABSENCE OF SHARED IDENTITY

Sol	Expressions	Incl	PRI	CovS	CovU	cases
CS	~GOAL*NORM*SUPP*INFO*MEET	0.803	0.000	0.364	0.254	2AF
	GOAL*~NORM*SUPP*INFO*~MEET	0.872	0.731	0.339	0.229	14AF
PS	~GOAL -> ~IDEN	0.810	0.494	0.593		14AF, 2AF
IS	~GOAL -> ~IDEN	0.810	0.494	0.593		14AF, 2AF

When we compare the parameters of fit for each of the solutions, we see that the complex solution produced one model with good parameters of fit and three possible 'pathways' to the outcome; the pathway with the highest unique coverage explains 22% of cases; mutual support, shared information and good contribution to meetings lead to the outcome of shared identity (unique coverage of 0.230).

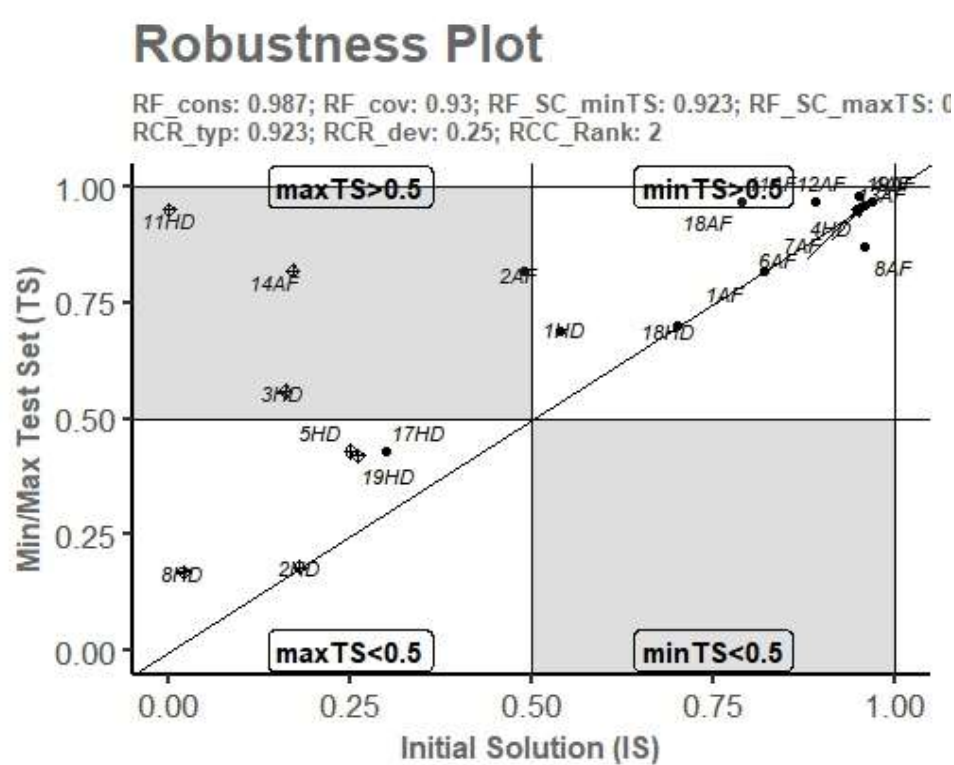
On occasion, the output reports 'NA', this suggests that the number of runs may have been too low to detect the boundary. To address this, the general advice is to increase the number of runs. In this research, whenever 'NA' appeared, the number of runs was increased up to the maximum empirically available range in the data. When NA continues to appear, it can be taken as evidence of a large sensitivity range – in other words the solution was stay the same within a large range of options (Oana & Schneider, 2021).

It is also important to also take a case perspective by first visualising the relationship between the IS and the min and max test sets and then examining the cases to determine the ratio of robust to non-robust cases. The robustness plot for NORM shows where the cases lie on the graph. Cases in the upper right quadrant and the lower left are described as robust cases. The cases above the diagonal in the upper right are robust typical cases or below the diagonal are deviant consistency cases. Having many of the cases in these two quadrants means that the classification of cases is robust to the changes they have been tested against. The cases in the lower left are either extreme deviant or irrelevant cases. The lower right and upper left quadrants are described as the 'forbidden quadrants' (Oana and Schneider, 2021) as cases in these quadrants are most likely to decrease the robustness of the results. Cases in the upper-left quadrant are cases that may be included in the maxTS but not in the IS. In this study, there is no case in the lower right quadrant and three in the upper left suggesting that most cases are robust.

Intersection of minimal/maximal test set with the initial solution. The robustness case ratio provides more information about the robustness of the cases in this study. We see that RCRtyp ranges from a low of 0.5 to a high of 0.923. This means that out of all potential typical cases, when the calibration is changed for GOAL 92% of the cases are robust and the RCRdev on the other hand is 0.25 This means that out of all potential deviant cases consistency, only 25% are robust. This is in line with the information we obtained from Figure 5.6 above where we can see that we have only one robust deviant consistency case, and only one possible and shaky deviant consistency case.

Additionally, the output provides information on how many cases of a certain type there are out of all the cases in the analysis and out of all the cases that share the same qualitative membership

in the outcome. This provides more detailed information on the raw number and share of a particular case type beyond the case ratios.



APPENDIX 14 ROBUSTNESS PARAMETERS FOR ALL CONDITIONS

	RCR_typ	RCR_dev	RCC Rank
Robustness Case Ratio (SUPP)	0.769	0.2	4
Robustness Case Ratio (GOAL)	0.923	0.25	2
Robustness Case Ratio (NORM)	0.846	0.333	4
Robustness Case Ratio (MEET)	0.846	0.333	4
Robustness Case Ratio (INFO)	0.538	0	4

For example, we see that we have 12 robust typical cases which amount to 54% percent of the cases in the analysis and to 85% of all the cases that are members of the outcome. In other words, out of all the cases that have the outcome to be explained, more than three quarters are robust typical. See below for the categorisation of cases into the various types.

APPENDIX 15 ROBUSTNESS DETAIL ON CHANGING CALIBRATION OF GOAL

Type	Boolean Exp	Cases in intersection	Total cases Y	Cases
Robust Typical IS*MIN_TS and Y > 0.5	GOAL*SUPP	12/22 = 54.5%	Y > 0.5 12/14 = 85.71%	1AF 1HD 4AF 4HD 7AF 8AF 11AF 12AF 13AF 18AF, 18HD 19AF
Robust Deviant IS*MIN_TS and Y < 0.5	GOAL*SUPP	1/22 = 4.5%	Y < 0.5 1/8 = 12.5%	6AF
Shaky Typical IS~MIN_TS and Y>0.5	~GOAL*INFO*NORM*SUP P	0/22 = 0%	Y>0.5 0/14 = 0%	No cases
Shaky Deviant IS*~MIN_TS and Y < 0.5	~GOAL*INFO*NORM*SUP P	0/22 = 0 %	Y < 0.5 0/8 = 0 %	No cases
Possible Typical ~IS*MAX_TS Y > 0.5	GOAL*~SUPP + ~GOAL*~NORM*SUPP ~GOAL*SUPP*~INFO	1/22 = 4.55%	Y > 0.5 1/14 = 7.14%	2AF
Possible Deviant ~IS*MAX_TS and Y < 0.5	GOAL*~SUPP + ~GOAL*~NORM*SUPP + ~GOAL*SUPP*~INFO	3/22 = 13.64%	Y < 0.5 3/8 = 37.5%	3HD, 11HD, 14AF
Extreme Deviant Coverage ~IS*~MAX_TS and Y > 0.5	~GOAL*~SUPP	1/22 = 4.55%	Y>0.5 1/14 = 7.14%	17HD
Irrelevant cases ~IS*~MAX_TS and Y < 0.5	~GOAL*~SUPP	4/22 = 18.18%	Y<0.5 4/8 = 50%	2HD, 5HD, 8HD, 19HD

The table below shows minor differences that apply when the calibration is changed for a different condition. Some Boolean expressions have changed but Robustness Cases when changing calibration for MEET condition is changed.

APPENDIX 16 ROBUSTNESS CASES WHEN CHANGING CALIBRATION FOR MEET

Type	Boolean Exp	Cases in intersection	Total cases Y	Case names
Robust Typical IS*MIN_TS and Y > 0.5	GOAL*SUPP	12/22 = 54.5%	Y > 0.5 12/14 = 85.71%	1AF 1HD 4AF 4HD 7AF 8AF 11AF 12AF 13AF 18AF, 18HD 19AF
Robust Deviant IS*MIN_TS and Y < 0.5	GOAL*SUPP	1/22 = 4.5%	Y < 0.5 1/8 = 12.5%	6AF
Shaky Typical IS~MIN_TS and Y>0.5	~GOAL*INFO*NORM*SUPP	0/22 = 0%	Y>0.5 0/14 = 0%	No cases
Shaky Deviant IS*~MIN_TS and Y < 0.5	~GOAL*INFO*NORM*SUPP	0/22 = 0 %	Y < 0.5 0/8 = 0 %	No cases
Possible Typical ~IS*MAX_TS Y > 0.5	GOAL*~SUPP + ~GOAL*NORM*SUPP*~INFO	1/22 = 4.55%	Y > 0.5 1/14 = 7.14%	2AF
Possible Deviant ~IS*MAX_TS and Y < 0.5	GOAL*~SUPP + ~GOAL*NORM*SUPP*~INFO	3/22 = 13.64%	Y < 0.5 3/8 = 37.5%	3HD, 11HD, 14AF
Extreme Deviant Coverage ~IS*~MAX_TS and Y > 0.5	~GOAL*~NORM + ~GOAL*~SUPP	1/22 = 4.55%	Y>0.5 1/14 = 7.14%	17HD

Irrelevant cases ~IS*~MAX_TS and Y < 0.5	~GOAL*~NORM + ~GOAL*~SUPP	5/22 = 22.7%	Y<0.5 5/8 = 62.5%	2HD, 5HD, 8HD, 14AF, 19HD
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APPENDIX 17 ROBUSTNESS DETAIL ON CHANGING CALIBRATION OF SUPP

Type	Boolean Exp	Cases in intersection	Total cases Y	Case names
<u>Robust Typical</u> <u>IS*MIN_TS and</u> <u>Y > 0.5</u>	<u>GOAL*INFO*NORM</u> <u>+ GOAL*INFO*SUPP</u>	<u>10/22 =</u> <u>54.5%</u>	<u>Y > 0.5</u> <u>10/14 =</u> <u>71.4%</u>	<u>1AF 1HD</u> <u>4AF 4HD</u> <u>7AF 8AF</u> <u>11AF 12AF</u> <u>13AF</u> <u>19AF</u>
<u>Robust Deviant</u> <u>IS*MIN_TS and</u> <u>Y < 0.5</u>	<u>GOAL*INFO*NORM</u> <u>+ GOAL*INFO*SUPP</u>	<u>1/22 = 4.5%</u>	<u>Y < 0.5</u> <u>1/8 =</u> <u>12.5%</u>	<u>6AF</u>
<u>Shaky Typical</u> <u>IS~MIN_TS and</u> <u>Y>0.5</u>	<u>~GOAL1*INFO1*NORM1 +</u> <u>GOAL1*~INFO1*SUPP1</u>	<u>2/22 =</u> <u>9.09%</u>	<u>Y>0.5</u> <u>2/14 =</u> <u>14.2%</u>	<u>18AF,</u> <u>18HD</u>
<u>Shaky Deviant</u> <u>IS*~MIN_TS</u> <u>and Y < 0.5</u>	<u>~GOAL1*INFO1*NORM1</u>	<u>0/22 = 0 %</u>	<u>Y < 0.5</u> <u>0/8 = 0 %</u>	<u>No cases</u>
<u>Possible Typical</u> <u>~IS*MAX_TS</u> <u>and Y > 0.5</u>	<u>~GOAL1*INFO1*~NORM1 +</u> <u>GOAL1*~INFO1*~SUPP1 +</u> <u>GOAL1*~NORM1*~SUPP1 +</u> <u>INFO1*~NORM1*~SUPP1 +</u> <u>~GOAL1*~INFO1*NORM1*SUPP1</u>	<u>1/22 =</u> <u>4.55%</u>	<u>Y > 0.5</u> <u>1/14 =</u> <u>7.14%</u>	<u>2AF</u>
<u>Possible</u> <u>Deviant</u> <u>~IS*MAX_TS</u> <u>and Y < 0.5</u>	<u>~GOAL1*INFO1*~NORM1 +</u> <u>GOAL1*~INFO1*~SUPP1 +</u> <u>GOAL1*~NORM1*~SUPP1 +</u> <u>INFO1*~NORM1*~SUPP1 +</u> <u>~GOAL1*~INFO1*NORM1*SUPP1</u>	<u>4/22 =</u> <u>18.1%</u>	<u>Y < 0.5</u> <u>4/8 = 50%</u>	<u>2HD, 3HD,</u> <u>11HD,</u> <u>14AF</u>
<u>Extreme</u> <u>Deviant</u> <u>Coverage</u>	<u>~GOAL1*~INFO1*NORM1 +</u> <u>~GOAL1*~INFO1*SUPP1</u>	<u>1/22 =</u> <u>4.55%</u>	<u>Y>0.5</u>	<u>17HD</u>

<u>$\sim IS * \sim MAX_TS$</u> <u>and $Y > 0.5$</u>			<u>$1/14 =$</u> <u>7.14%</u>	
<u>Irrelevant cases</u> <u>$\sim IS * \sim MAX_TS$</u> <u>and $Y < 0.5$</u>	<u>$\sim GOAL1 * \sim INFO1 * NORM1 +$</u> <u>$\sim GOAL1 * \sim INFO1 * SUPP1$</u>	<u>$2/22 =$</u> <u>9.09%</u>	<u>$Y < 0.5$</u> <u>$2/7 =$</u> <u>28.57%</u>	<u>5HD, 8HD,</u> <u>19HD</u>

The final test that was done, tests which of the three test solutions performs worst which helps to clarify which changes have most impact on the robustness or the solution. In the table below the 'SC' or set coincidence tells us how large the overlap is between the IS and the alternative solutions created. When the calibration for GOAL is changed in TS2 the worst performing test is Test set 1 – which involved changing the consistency level. For all the other conditions, it is test set three that is the most problematic for robustness. This test set was produced by changing both the calibration and the frequency cut from one case to two. The sensitivity range test had already indicated that the frequency cut was sensitive to change so it is not surprising that a test set developed by making two separate changes to the parameters, creates the biggest problem for robustness.

APPENDIX 18 WORST TEST FOR GOAL

Test set	Boolean expression	Rank	SC
2	$NORM * SUPP + SUPP * MEET$	4	0.861
1	$GOAL + NORM * SUPP$	2	0.835
3	$SUPP$	2	0.853

APPENDIX 19 WORST TEST FOR SUPP

Test set	Boolean expression	Rank	SC
3	$INFO$	4	0.753
1	$NORM * INFO + GOAL * SUPP * MEET$	3	0.841

2	GOAL+NORM*SUPP	2	0.835
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APPENDIX 20 WORST TEST FOR NORM

Test set	Boolean expression	Rank	SC
3	GOAL	4	0.858
1	GOAL + NORM*SUPP	2	0.835
2	GOAL*SUPP + SUPP*INFO*MEET	1	0.975

APPENDIX 21 WORST TEST FOR MEET

Test set	Boolean expression	Rank	SC
3	GOAL	4	0.858
1	GOAL + NORM*SUPP	2	0.835
2	GOAL*SUPP + NORM*SUPP	2	0.946

APPENDIX 22 WORST TEST FOR INFO

Test set	Boolean expression	Rank	SC
3	$\sim$ GOAL*SUPP+GOAL* $\sim$ NORM+GOAL* $\sim$ MEET	4	0.503
2	$\sim$ GOAL*NORM*SUPP+GOAL* $\sim$ NORM*SUPP+GOAL*NORM* $\sim$ MEET	2	0.549
1	GOAL + NORM*SUPP	2	0.835

Of the five conditions, changes to the calibration of INFO present the greatest problem for the robustness of our IS or parsimonious solution. The set coincidence is small between the Test sets and the IS and the robustness fit parameters are also poor. In conclusion, the tests suggest that while not perfect, the results remain robust to a large extent.

Developing TS1 by changing the consistency level to 0.80 instead of 0.91 produces a range of expressions that make up the set that is TS1 (GOAL + NORM*SUPP + NORM*MEET + SUPP*MEET). below shows the parameters of fit for the RC based on changing the calibration for one of the five conditions.

The robust core was always be either the same or a subset of the IS. Changing the calibration for each condition produces changes to test sets 2 and 3. See below for the parameters and solutions produced when the calibration for NORM is changed.

APPENDIX 23 ROBUSTNESS PARAMETERS FOR NORM

Solution	Expression	InclS	PRI	CovS	CovU
Initial	GOAL*SUPP	0.875	0.827	0.783	0.081
	NORM*SUPP*INFO	0.913	0.860	0.603	0.043
	SUPP*INFO*MEET	0.948	0.921	0.651	0.010
TS1	SUPP*INFO*MEET	0.948	0.921	0.651	0.010
	GOAL	0.848	0.779	0.867	0.101
	NORM*SUPP	0.824	0.718	0.542	0.000
	NORM*MEET	0.829	0.718	0.542	0.000
	SUPP*MEET	0.878	0.821	0.678	0.011
TS2	NORM*INFO	0.913	0.860	0.603	0.093
	GOAL*SUPP*MEET	0.921	0.874	0.686	0.175
TS3	INFO	0.852	0.789	0.832	

Solution	Expression	InclS	PRI	CovS	CovU
Test Set	GOAL*INFO*NORM	0.914	0.858	0.585	0.003
	INFO*MEET*NORM	0.927	0.870	0.520	0.000
	INFO*NORM*SUPP	0.916	0.870	0.571	0.010
	GOAL*INFO*MEET*SUPP	0.946	0.919	0.633	0.150
	expression	0.929	0.896	0.753	

The Boolean expression for the Robust core when the calibration for the condition 'NORM' is changed (GOAL + SUPP + INFO + (NORM*MEET) and when the calibration for GOAL is changed,

this expression changes slightly, with the addition of NORM to the expression (GOAL + SUPP + (NORM*INFO) + (NORM*MEET)). As the calibration for each condition is changed other parameters also change.

APPENDIX 24 PARAMETERS FOR THE ROBUST CORE

	Cons.Suf	Cov.Suf	PRI
Robust Core (SUPP)	0.932	0.715	0.903
Robust Core (GOAL)	0.889	0.755	0.844
Robust Core (NORM)	0.875	0.783	0.827
Robust Core (MEET)	0.875	0.783	0.827
Robust Core (INFO)	0.977	0.538	0.961

APPENDIX 25 SUMMARY OF IDENTITY MEASURES

Cases	Uncalibrated measure	Interviews Yes/No	Indicative interview quote
1AF	10.0	No	It makes sense, but not really...I mean, the guards are the guards, we are...the [named org], so we all have our own identity already. It's... it's everybody does their own thing really
1HD	10.0	No	I don't think so because it is just the changes in personnel on the group, you kind of lose continuity then.
2AF	8.5	Yes	I think there is quite a strong identity in terms of age friendly qualities
2HD	8.31	Yes	the organisations on the housing group, they may feel a sense of ownership and a sense of participation, engagement
3HD	8.91	No	It's not sitting with me yet..the identity of the group....I think that we all need to be on the same page.
4AF	9.6	Yes	yeah, I do, I think the Age friendly Alliance in [local authority 4] is...like its very much part of...people's awareness

4HD	9.0	Yes	They do, but I feel it needs to be worked on
5HD	7.28	No	I hope so in time..
6AF	8.66	Yes	And once the rest of us see the cooperation coming from the table and being taken offline, that's a win
7AF	9.1	Yes	Yeah absolutely, I think so, I think we have we have come together like a good, strong group
8AF	9.83	No	I feel that needs to be more frequent meetings in order to progress work and report back, there needs to be a proper review mechanism
8HD	8.5	Yes	the collaboration has been brilliant in [local authority area] and I think that is what has got us across the line
11AF	8.83	Yes	it's good, they certainly work together
11HD	8.25	No	Very close to it I would say
12AF	9.33	Yes	It was so obvious there, the benefit of you know, people working together with the shared objective
13AF	10.5	No	they're not there yet but I think they're starting to get there...maybe in another couple of months
14AF	8.0		No interview comment
16HD	8,0	Yes	Yes I think so yes..I certainly feel that people are listening to each other more
17HD	9.42	No	I think that might be a bit aspirational
18AF	9.0	No	we're on the road, but are we anywhere close to the end of the journey? No, not at all, not even remotely
18HD	8.67	No	I don't know if the feeling about the group is that strong
19AF	9.49	Yes	I hope so...they're all in some way invested, you know, directly or indirectly know
19HD	8.8	No	Any group can but it needs facilitation and it needs intention. Does this group have it at the moment? No

1) Introduction

Despite the failure of the contextual conditions to display a necessity relationship with the outcome, evidence from both the qualitative interviews and the survey data suggested that contextual factors relating to the different programmes may have had an impact on some of the conditions, and, on the nature of the interactions and the quality of the relationships developed in the two programmes. Therefore, to fully explore whether programme differences exist, the dataset was split by programme (AF or HD) and tests for necessity and sufficiency were carried out. In this section, the results of the analysis of the two datasets was be summarised; first considering the analysis of necessity for shared identity and then proceeding to identify any individually sufficient conditions as well as any conjunctions or disjunctions that are sufficient for the development of a shared identity. Finally, the results of the minimisation of the truth table was be presented showing the combination of conditions that contribute to the development of a shared identity.

As the regular meetings are the main forum for interactions between network members, one of the factors (conditions) to be included in the Qualitative Comparative Analysis (QCA) to follow, is the contribution that network members make to meetings. Similar numbers of respondents in the AF and HD programmes described themselves as regular non-contributors (5% and 6% respectively) and regular full contributors (30% and 34% respectively). More than one in ten respondents (11%) in the HD networks found it difficult to contribute because of a lack of knowledge or experience compared to only 2% of AF respondents. The overall level of ‘non-contribution’ in the HD programme was higher (26%) than in the AF programme (12%).

APPENDIX B 1 CONTRIBUTION TO MEETINGS

<i>Agreement with the following statement</i>	<i>AF%</i>	<i>HD%</i>
<i>Difficulty due to my level of experience</i>	2%	11%
<i>Difficulty due to shortage of time/competing priorities</i>	5%	9%
<i>I attend but do not contribute much for other reasons</i>	5%	6%
<i>I contribute when the discussion relates to my organization's core activities</i>	58%	40%

I lead or contribute to most discussions and offer help or resources to others wherever I can | 30% 34%

APPENDIX B 2 AGREEMENT WITH STATEMENTS

	Most of the time		Sometimes		Rarely or Never	
How often are the following statements true	AF	HD	AF	HD	AF	HD
If conflicts or disagreements arise, members discuss them openly to find a solution	70%	60%	14%	23%	16%	18%
Different people lead the discussion and most people contribute equally	64%	30%	31%	56%	5%	13%
Members challenge each other to find better solutions to issues	23%	20%	49%	49%	28%	31%
Members offer support and advice to each other to help solve problems	79%	60%	19%	38%	2%	7%
Members share information freely to increase understanding of issues	86%	60%	14%	30%	0%	6%
Members are primarily focused on the activities carried out by their organisation	68%	60%	29%	36%	3%	5%
Members are encouraged to express their views before a decision is made	79%	70%	18%	21%	4%	9%
Members seem reluctant to tell others what they really think	5%	10%	55%	52%	39%	39%
Many members sit back and let others do the work	9%	20%	54%	56%	38%	22%
Members share the same goals and are committed to working together to achieve them	62%	52%	33%	38%	5%	10%
I feel we are very united as a group and work really well together	55%	30%	41%	57%	5%	14%

2) Analysis of Necessity

Using the **HD dataset**, with the standard cut-off levels of consistency (incl.cut = 0.9), coverage (cov.cut = 0.6) and Relevance of Necessity (ron.cut=0.5), no necessary conditions were found for any of the three outcomes – shared identity (IDEN), subjective effectiveness (SUBEFF) or objective effectiveness (OBJEFF).

When analysing the **AF dataset**, with the same cut-off levels we see a different pattern. Three conditions – mutual support, **shared information (INFO)** and **shared goals (GOAL)** passed the 0.9 threshold for necessity but the RoN level of 0.239 of mutual support (SUPP) suggests that the relationship is trivial. However, the parameters of fit for the other two conditions indicate that these conditions can be considered necessary for the development of a shared identity.

The software also offered a way of exploring the presence of what is known as SUIN conditions, defined as a “sufficient but unnecessary part of a factor that is insufficient but necessary for an outcome’ (Mahoney, James, Kimball, Erin, Koivu, 2009) or necessary conjunctions of conditions. A number of necessary conjunctions were found for shared identity in the AF dataset but again, the HD data showed a different pattern. The HD data appears to be relatively symmetrical; many of the conditions that produce the outcome, when negated, produce the absence of the outcome.

In the AF data, in addition to the single conditions of shared goals and shared information, five conjunctions (or the intersection of sets of conditions) exceed the threshold of 0.9 for necessity; a set containing mutual support AND shared information; mutual support and shared goals; shared information and shared goals; mutual support and shared information and shared goals and finally a combination of contribution to meetings and shared norms are necessary for a shared identity - SUPP*INFO + SUPP*GOAL + INFO*GOAL+ SUPP*INFO*GOAL + MEET*NORM

In the HD case a number of different disjunctions are necessary for the outcome. However, Dusa (2019) warns that in some cases the researcher must be alert to the possibility of ‘automatic super concepts’. These are disjunctions derived from the data environment rather than concepts with genuine theoretical meaning. In other words, while the software can find all possible necessary expressions from a certain data, the researcher must be cautious about assuming that they should be interpreted as higher order concepts. Certainly, in this case, given the abundance

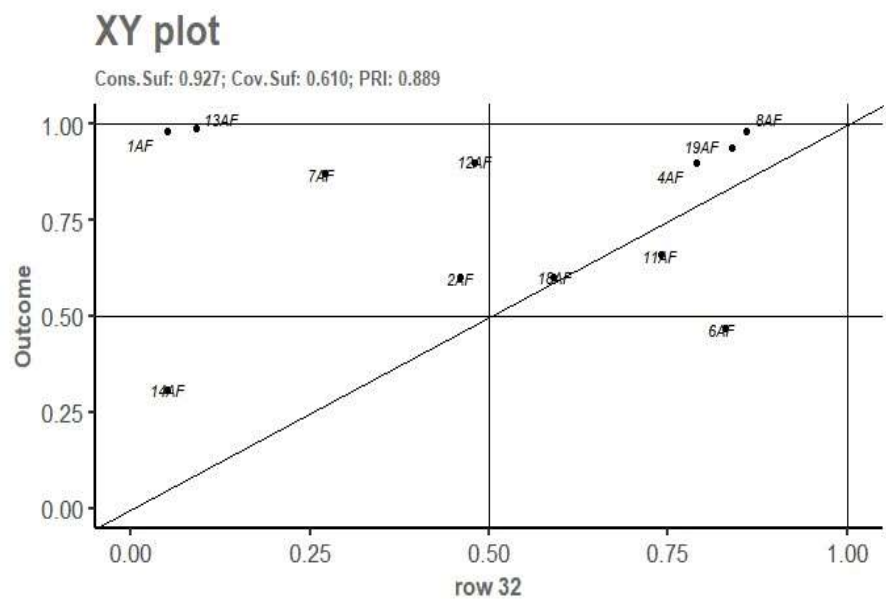
of permutations in the HD data, it is questionable whether they can all be relevant theoretical concepts.

3) Analysis of Sufficiency

In the analysis of sufficiency, again a different pattern emerges between the two programmes. The standard for sufficiency is generally considered to be somewhat lower than that for necessity and 0.8 or even 0.75 level have been considered acceptable in published research (Schneider and Rohlfing, 2016).

In the AF case, all five conditions were found to be individually sufficient for the development of shared identity with good parameters of fit for coverage and PRI. For the negated outcome (absence of shared identity $\sim$ IDEN) one of the negated conditions, the absence of shared goals, is sufficient for the outcome. In the HD case, three conditions, shared goals (GOAL), shared information (INFO) and mutual support (SUPP) passed the minimum threshold for sufficiency (albeit with barely acceptable levels of coverage and PRI).

To complete the analysis of the two datasets, a truth table was developed and minimized for each dataset. In the AF dataset, the data presented a very clear picture; four truth table rows (combinations of conditions) represented 11 of the 12 cases and 10 of these had the outcome. To decide on an appropriate raw consistency threshold, it was apparent that there was a significant gap in the raw consistency levels between row 7 (raw consistency level 0.532) and row 32 (0.927). Furthermore, row 32 contained 6 cases, one of which had the conditions but not the outcome. When this row was plotted (see below) it was clear that it was only marginally below the 0.5 threshold between having and not having the outcome. Therefore, this case was retained for analysis and the consistency level was set at 0.92.



The software provides us with the parameters of fit of consistency and coverage in addition to a measure of PRI (or proportional reduction in inconsistency). It is generally recommended that PRI consistency scores should be high and preferably at a similar level as the consistency score configurations with PRI scores below 0.5 indicate significant inconsistency. Again, we see a different pattern of relationships between the conditions and the various outcomes in each of the two datasets. Using the AF data, the parsimonious solution suggests that three different combinations, each with two conditions – shared goals or shared norms; shared goals or contribution to meetings; shared norms or contribution to meetings are sufficient to produce a shared identity. Minimising the truth table to produce either the complex or the intermediate solution offered the same result.

APPENDIX B 4 HD DATA – PATHWAYS TO SHARED IDENTITY

Soln	Expressions	Incl	PRI	CovS	CovU	cases
	GOAL*NORM*SUPP*INFO*~MEET	0.967	0.937	0.382	0.131	4HD
CS	GOAL*~NORM*SUPP*~INFO*~MEET	0.882	0.654	0.246	0.072	18HD
	~GOAL*NORM*SUPP*INFO*MEET	0.949	0.885	0.237	0.015	

PS	SUPP-> IDEN	0.808	0.718	0.634		1HD, 18HD 4HD
IS	GOAL*SUPP -> IDEN	0.860	0.766	0.509	0.230	18HD4HD
	NORM*SUPP*INFO*MEET	0.958	0.892	0.294	0.015	1HD

APPENDIX B 5 QCA SOLUTIONS FOR SHARED IDENTITY

Sol	AF	HD
CS	GOAL*NORM*SUPP*INFO	GOAL*NORM*SUPP*INFO*~MEET
	GOAL*SUPP*INFO*MEET	GOAL*~NORM*SUPP*~INFO*~MEET
	NORM*SUPP*~INFO*MEET	~GOAL*NORM*SUPP*INFO*MEET
PS	GOAL-> IDEN	SUPP-> IDEN
	NORM-> IDEN	
	MEET-> IDEN	
IS	GOAL*NORM*SUPP*INFO	GOAL*SUPP
	NORM*SUPP*MEET	NORM*SUPP*INFO*MEET
	GOAL*SUPP*INFO*MEET	

In a QCA study, causal symmetry is never assumed – or that the conditions that produce the outcome was also, when absent, produce the absence of the outcome. Therefore, to conclude this comparison of the two programmes, the conditions sufficient for the negated outcome ~IDEN were also analysed. (For full details see Appendix 1)

4) Necessity and sufficiency of shared identity for effectiveness

Finally, to address the question of whether a shared identity is necessary or sufficient for effectiveness in each of the programmes, the above tests were carried out with shared identity

(IDEN) as the condition and either subjective or objective effectiveness as the outcomes. As there is only one condition, a truth table cannot be developed.

The analysis shows that a **shared identity is necessary** for subjective effectiveness in the AF programme but not in the HD programme. There is no necessity relationship between shared identity and the absence of subjective effectiveness in either programme. Similarly, there is no necessity relationship between shared identity and either the presence or absence of objective effectiveness in either programme

APPENDIX 27 NECESSITY FOR SUBJECTIVE AND OBJECTIVE EFFECTIVENESS AF AND HD

Positive outcome (SUBEFF)				Negative Outcome (~SUBEFF)		
Condition	Cons	Cov	RoN	Cons	Cov	RoN
AF IDEN	0.943	0.812	0.625	0.734	0.333	0.320
HD IDEN	0.812	0.388	0.586	0.591	0.511	0.639
Positive outcome (OBJEFF)				Negative Outcome (~OBJEFF)		
Condition	Cons	Cov	RoN	Cons	Cov	RoN
AF IDEN	0.798	0.450	0.364	0.883	0.663	0.482
HD IDEN	0.657	0.731	0.763	0.744	0.560	0.663

Shared identity is sufficient for subjective effectiveness in the AF programme but again, not in the HD programme. In fact, shared identity is sufficient for the absence of subjective effectiveness in the HD programme. Shared identity is not sufficient for the absence of subjective effectiveness in the AF data and not sufficient for either the presence or absence of objective effectiveness in either programme.

APPENDIX 28 SUFFICIENCY FOR SUBJECTIVE AND OBJECTIVE EFFECTIVENESS

Positive outcome (SUBEFF)				Negative Outcome (~SUBEFF)		
Condition	Cons	Cov	RoN	Cons	Cov	RoN
AF IDEN	0.812	0.943	0.751	0.333	0.734	0.120

HD IDEN	0.388	0.812	0.148	0.808	0.582	0.732
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Condition	Positive outcome (OBJEFF)			Negative Outcome (~OBJEFF)		
	Cons	Cov	RoN	Cons	Cov	RoN
AF IDEN	0.450	0.798	0.319	0.663	0.883	0.582
HD IDEN	0.731	0.657	0.586	0.560	0.744	0.322

5) Conclusion

To summarise the analysis of the two datasets, it is apparent that the AF data more closely fits the research model and further, that more AF cases are explained by the research model. The parsimonious solution for both datasets lead to different results – in the AF data three individual conditions – shared goals, shared norms or contribution to meetings lead to the outcome while in the HD data it is only mutual support that leads to the outcome. The intermediate solution for the AF case (which includes the directional expectations of the research model to minimize the truth table), produces three pathways with different conjunctions or combinations of three or four of the five conditions in the model leading to a shared identity. The HD programme shows two pathways to a shared identity; either shared goals and mutual support or shared norms, mutual support, shared information and contribution to meetings leading to a shared identity.

One of the key differences between the programmes is in the cases with shared identity. In the AF data ten cases out of the twelve cases have the outcome while in the HD programme four cases out of ten cases have the outcome. The potential explanation for these differences is explored in Chapter 6.

APPENDIX 29 VALIDITY TESTS

1. TOTAL VARIANCE EXPLAINED

Extraction Method: Principal Axis Factoring

Factor	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %

1	8.262	45.903	45.903	7.768	43.156	43.156
2	1.566	8.702	54.605			
3	1.163	6.460	61.065			
4	.972	5.401	66.466			
5	.810	4.499	70.966			
6	.754	4.187	75.152			
7	.719	3.993	79.145			
8	.607	3.371	82.516			
9	.508	2.822	85.338			
10	.452	2.513	87.851			
11	.397	2.205	90.056			
12	.354	1.968	92.024			
13	.310	1.723	93.747			
14	.274	1.522	95.269			
15	.261	1.447	96.716			
16	.221	1.225	97.941			
17	.202	1.123	99.065			
18	.168	.935	100.000			

Introduction

Can you give me the name of the Alliance/Steering Group you manage and tell me a bit about your membership of the Alliance/Steering Group; how long have you been in the group and how significant is it in your normal day to day work?

From the perspective of the local authority, what is the key role or roles you play in relation to the Alliance/Steering Group; what do you want to or believe you can achieve?

Collaboration Conditions

Shared goals;

- The Alliance/Steering Group has developed a local strategy which contains a number of different goals. What would you see as the main goal of the Alliance/Steering Group and
- to what extent do you feel that this goal is shared with the majority of members?
- What about the level of commitment to the goals – are they similar around the table or do they vary from person to person?
- Do you feel that people in the group see a value in working together to achieve their goals and if so, how do you know this?

Norms/Agreed rules;

- To what extent do the groups agree their own ways of working or are guided by national protocols setting out how they should work eg size of the group, who should be invited to become a member, how they make decisions?
- When you became a member of the group did you receive any guidance/training or go through any induction process to tell you how the group worked together?
- Regular interactions; Can you tell me a bit about how the group interact in meetings and outside of meetings, is there open discussion or is it moderated by one person? Do most people get an opportunity to speak at every meeting?
- Internal communication/sharing of information; Do you feel that people in the group share information or other resources freely?

Trust and Mutual support;

- When people work together over a period of time they often establish relationships based on trust and mutual support, where people feel that they can call on other members to help if they have an issue that needs their support. To what extent do you think this happens in your Alliance/Steering Group ?

Shared values;

- Coming from different organisations, people typically have different values or different ways of seeing the world. Has there ever been any discussion of organisational values at Alliance/Steering Group meetings?
- Are you aware of any differences between the values of individuals or the organisations they represent and if so to what extent do you think this is or could be an issue or potential cause of conflict?
- Are you aware of any change that may have occurred between people as a result of working with others in these groups?

Collaboration

- I am interested in understanding how people collaborate in groups, What do you understand by collaboration, what is good collaboration and how would you know it? What do you think are the potential barriers to good collaboration?

Shared identity

- What do you understand to be a shared identity and in your opinion does the group you belong to have one? Do you identify with this group?

Effectiveness

- How effective do you think the group is overall, why do you think this? what do you think the group could achieve in ideal circumstances?

External communication;

- How do you report to or consult with your organisation or other stakeholders about the work being done in the Alliance/Steering Group? Follow-up... if a decision was to be made in the Alliance/Steering Group would you have to consult someone or would you make a decision and report what has been agreed?

APPENDIX 31 COMPARISON - AGE FRIENDLY AND HOUSING NETWORKS

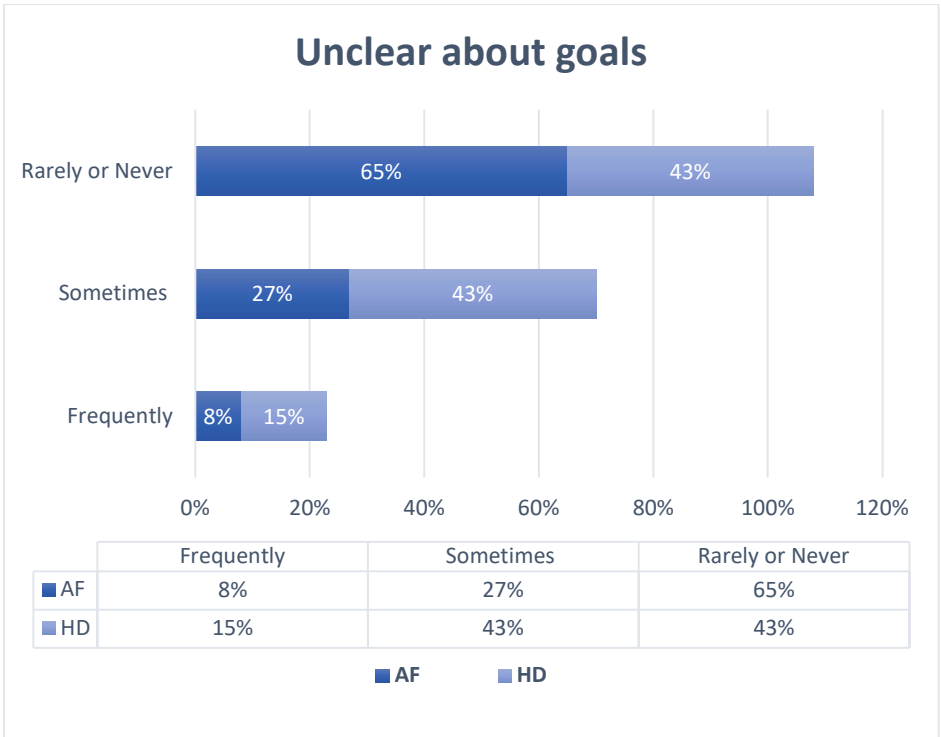
As the regular meetings are the main forum for interactions between network members, one of the factors (conditions) to be included in the Qualitative Comparative Analysis (QCA) to follow, is the contribution that network members make to meetings. Similar numbers of respondents in the AF and HD programmes described themselves as regular non-contributors (5% and 6% respectively) and regular full contributors (30% and 34% respectively). More than one in ten respondents (11%) in the HD networks found it difficult to contribute because of a lack of knowledge or experience compared to only 2% of AF respondents. The overall level of 'non-contribution' in the HD programme was higher (26%) than in the AF programme (12%).

APPENDIX 32 CONTRIBUTION TO MEETINGS

<i>Agreement with the following statement</i>	<i>AF%</i>	<i>HD%</i>
<i>Difficulty due to my level of experience</i>	2%	11%
<i>Difficulty due to shortage of time/competing priorities</i>	5%	9%
<i>I attend but do not contribute much for other reasons</i>	5%	6%
<i>I contribute when the discussion relates to my organization's core activities</i>	58%	40%
<i>I lead or contribute to most discussions and offer help or resources to others wherever I can</i>	30%	34%

More than one third, (37%) of AF respondents feel that the group is highly effective compared to only 8% of HD respondents. Almost one in 5 (19%) of the HD members reported that the group was either not very or not at all effective, compared to 7% of AF members.

APPENDIX 33 GOAL CLARITY



APPENDIX 34 HD DATA – NECESSITY FOR SHARED IDENTITY

Condition	Positive outcome (IDEN)			Negative Outcome (~IDEN)		
	Consistency	Coverage	RoN	Consistency	Coverage	RoN
SUPP	0.640	0.803	0.872	0.374	0.507	0.774
INFO	0.610	0.841	0.908	0.498	0.594	0.795
GOAL	0.709	0.779	0.826	0.595	0.566	0.707
NORM	0.741	0.769	0.803	0.584	0.525	0.664
MEET	0.502	0.702	0.844	0.621	0.752	0.867
~SUPP	0.528	0.494	0.596	0.819	0.663	0.689
~INFO	0.705	0.619	0.625	0.866	0.658	0.651
~GOAL	0.604	0.633	0.722	0.767	0.695	0.758
~NORM	0.543	0.601	0.728	0.744	0.713	0.788

~MEET	0.823	0.715	0.685	0.754	0.567	0.589
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¹No necessary conditions meeting the thresholds for consistency (0.9), coverage (0.6) and relevance

APPENDIX 35 NECESSARY CONDITIONS FOR AF DATA - IDENTITY

Condition	Positive outcome (IDEN)			Negative Outcome (~IDEN)		
	Consistency	Coverage	RoN	Consistency	Coverage	RoN
SUPP	0.980	0.800	0.245	1.000	0.248	0.079
INFO	0.982	0.856	0.540	1.000	0.266	0.160
GOAL	0.957	0.881	0.635	0.814	0.229	0.210
NORM	0.682	0.801	0.732	0.771	0.278	0.429
MEET	0.866	0.867	0.704	0.785	0.241	0.293
~SUPP	0.080	1.000	1.000	0.196	0.753	0.984
~INFO	0.191	1.000	1.000	0.471	0.891	0.985
~GOAL	0.166	0.741	0.949	0.592	0.809	0.962
~NORM	0.392	0.846	0.923	0.467	0.309	0.726
~MEET	0.249	0.788	0.937	0.589	0.241	0.881

APPENDIX 36 SUIN CONDITIONS FOR AF AND HD PROGRAMMES

Programme	Solution	Incl	CovN	RoN
AF IDEN	INFO	0.962	0.856	0.540
	GOAL	0.961	0.881	0.635
	SUPP*INFO	0.950	0.864	0.592
	SUPP*GOAL	0.941	0.881	0.660

	INFO*GOAL	0.934	0.918	0.781
	SUPP*INFO*GOAL	0.922	0.918	0.781
	MEET*NORM	0.923	0.838	0.543
AF ~IDEN	No configurations using these cut off values			
Programme	Solution	Incl	CovN	RoN
HD IDEN	SUPP + ~MEET	0.916	0.687	0.560
	INFO + ~MEET	0.942	0.700	0.564
	~MEET + NORM	0.901	0.675	0.549
	MEET + GOAL + NORM	0.942	0.700	0.564
	MEET + SUPP + NORM	0.940	0.707	0.579
	SUPP + INFO + ~GOAL	0.938	0.674	0.511
	SUPP + INFO + NORM	0.903	0.715	0.626
HD ~IDEN	MEET + ~SUPP	0.922	0.638	0.575
	MEET + ~INFO	0.953	0.618	0.511
	MEET + ~GOAL	0.901	0.655	0.562
	~SUPP + ~INFO	0.919	0.659	0.553
	~SUPP + ~GOAL	0.901	0.617	0.553
	INFO + ~GOAL	0.922	0.633	0.566
	~INFO + ~ NORM	0.943	0.629	0.537

APPENDIX 37 INDIVIDUALLY SUFFICIENT CONDITIONS FOR SHARED IDENTITY

Outcome	Condition	Incl	Cov	PRI
AF IDEN	GOAL	0.881	0.961	0.847
	NORM	0.801	0.682	0.725
	INFO	0.856	0.962	0.812
	SUPP	0.794	0.980	0.739
	MEET	0.867	0.866	0.826
AF ~IDEN ¹	~GOAL	0.824	0.588	0.526
	~NORM	0.312	0.459	0.120
	~INFO	0.798	0.484	0.000
	~SUPP	0.753	0.191	0.000
	~MEET	0.576	0.578	0.246
HD IDEN	GOAL	0.779	0.706	0.571
	NORM	0.769	0.741	0.630
	INFO	0.841	0.610	0.703
	SUPP	0.803	0.640	0.709
	MEET	0.702	0.502	0.329
HD ~IDEN ¹	~GOAL	0.695	0.767	0.490
	~NORM	0.713	0.744	0.448

	~INFO	0.658	0.866	0.399
	~SUPP	0.663	0.819	0.444
	~MEET	0.567	0.754	0.301

1 One of the AF negated conditions reached the cut off level for sufficiency consistency and coverage.

Most respondents express positive views about behaviours in their networks. The majority 'frequently agree' with all positive statements about network behaviours across both programmes.

APPENDIX 38 COLLABORATIVE BEHAVIOUR STATEMENTS

How often are the following statements true?	Most of the time		Sometimes		Rarely/ Never	
	AF	HD	AF	HD	AF	HD
If conflicts or disagreements arise, members discuss them openly to find a solution	70%	60%	14%	23%	16%	18%
Different people lead the discussion, and most people contribute equally	64%	30%	31%	56%	5%	13%
Members challenge each other to find better solutions to issues	23%	20%	49%	49%	28%	31%
Members offer support and advice to each other to help solve problems	79%	60%	19%	38%	2%	7%
Members share information freely to increase understanding of issues	86%	60%	14%	30%	0%	6%

Members are primarily focused on the activities carried out by their organisation	68%	60%	29%	36%	3%	5%
Members are encouraged to express their views before a decision is made	79%	70%	18%	21%	4%	9%
Members seem reluctant to tell others what they really think	5%	10%	55%	52%	39%	39%
Many members sit back and let others do the work	9%	20%	54%	56%	38%	22%
Members share the same goals and are committed to working together to achieve them	62%	52%	33%	38%	5%	10%
I feel we are very united as a group and work really well together	55%	30%	41%	57%	5%	14%

Similarly, the majority of respondents stated that negative statements about the behaviours in their network were rarely or never true. However, there were some exceptions; for example, in response to the statement that 'Many members of the group sit back and let others do the work' 20% of HD respondents said that this was frequently true and 56% said it was sometimes true. This is compared to 9% and 54% in the AF programme. In the HD programme 15% of respondents said it was frequently true that they were unclear about the goals of the programme and a further 43% were 'sometimes unclear' compared to 8% and 27% in the AF programme.

1. *Shared Goals*

Goal agreement is not a tangible fact, it is a judgement that network participants are required to make. Therefore, when asked about the goal agreement of others in the network, interviewees look to proxies or indicators to make a judgement. For example, many members used regular attendance at meetings or their contribution to collaborative activities as evidence of shared goals, "Yeah, I think people are supportive of the goals ...there seems to be a was there, for sure, because people do attend" 18HD_111026. One tangible measure that is used in the survey and easily interpreted from qualitative statements is goal clarity. Without clarity about the goals of the network, it is debatable whether any goals could be shared.

2. *Shared Norms*

Norms are (similarly intangible) accepted ways of working that tend to develop in groups as people work together. They can apply to group processes or ways of interacting with each other and can act as a guide to group members in the appropriate way of behaving in a particular group. Interviewees were asked if they were aware of particular ways of working or if they had received any induction into the group's processes. Responses suggested that many were not clear about whether norms existed within the group, "there would have been terms of reference drawn up at the outset of what when we would have started initially" 11HD_093751. Another interviewee interpreted the question as referring to the most common way of behaving, "I have to say the alliance are a very positive group and because there's never any negativity... It'd be quite a friendly kind of committee so I think the norm is kind of they'd be very friendly towards each other" 19AF_103217.

Other interviewees interpreted the question as referring to rules, "Well, there are rules, but to be honest with you, we've never looked at them. And I'm long enough around to know that when you have to start looking at rules, you're in trouble, right? we operate on a goodwas basis." 2AF_105528

And another, "I wouldn't say that there's a particular set of rules for this particular committee. Like, we in the local authority would apply the same rules to all of the other committees in terms of values and attendance and issuing apologies and, you know, inviting people to speak and having an open floor 3HD_120157

3. *Shared Information*

Sharing information is a behaviour that can be observed and remarked on and interviewees were mostly positive about information sharing in their networks. In the AF programme, the standard format for most meetings is to go around the 'table' (or to each participant in a zoom call) and ensure that every member speaks... "we would ensure that everybody contributes...so that means that everyone has an opportunity to say where they're coming from, if they're working with another partner or a number of partners, what they are planning to achieve from that"

12AF_143541

Or...we have the update, say the regional programme manager was give an update, I'll give my update or the chairman gives his update and the agencies that are represented give their updates..." 11AF_153417 "I think there's a fairly good open sharing of information goes on, and I think the reason for that really is that there's no competition there" 14AF_100114

The benefit of information sharing was observed on by one programme manager discussing the impact on a new member, "she was delighted with the information that was shared across the partners and...she was saying what she's going to bring to the meetings the next time in terms of updates of different stats from [her organisation]. You know so again, they didn't know each other before this..."18AF_153046

In the HD cases, the sharing of information was often a formal process that required data sharing agreements to be put in place. However, there is evidence that this has been actively worked on by the groups "we got a pilot project to try and capture the needs so we can share it with the council. So...we're ready to do that with the councils now, okay, with GDPR covered off in it and they're not frightened by it" 17HD_111222 This fear and the action taken was confirmed by the Manager in the national office, "I was down in XXXX about a year ago and they were trying to work out ... where the issue with GDPR was...because that's one of the biggest things and they agreed that actually the HSE [health organization] was going to get the consent of all of their clients to ask the local authority were they on the housing list so that they could work together then...and that's I think the biggest achievement"

4. *Trust and mutual support*

The perception that a group member could rely on, or felt that they would be supported by, others in the group is used as an indicator of trust and positive relationships. Many interviewees

were very clear in their response to this question “Well, I would find that it's a very good working relationship, particularly if, for instance, an older person in the community has an issue and I need to make contact with a specific person on the Alliance. I know I'll get a response and a direction and I know that from experience. So that's why I suppose I would say that the relationship is very good across the board.” 12AF_143541

During the Covid-19 period many of the AF Alliances had a special role in providing extra services to older people who were unable to leave their homes. Consequently, their relationships with others on the Alliance developed, “...certainly during Covid, when quite a number of the alliance members had to work together, trust really came into it, because it was very serious and in the meetings if a particular agency was saying, look we can bring this to the table or we can do this particular action, nobody doubted that yes, that they were going to go away and do that . And sure enough, at the next meeting they'd come back and say, we did do that and this is what the outcome was” 6AF_153707

Others focused more on relationships and relationship-building “There would be a gathering beforehand, it would always be tea and there's a kind of kitchen area, so people would be having chats and stuff beforehand. And that just kind of helps towards bringing it together as a team”. 7AF_210220

Another interviewee explained the importance of developing relationships with other in the group “it's making those connections, the personal touch, it's always about the personal touch, we are in Ireland and it's not going to change, It's about the personal touch and sharing your knowledge” 11HD_135957

Others pointed out that relationships and trust take time and effort to develop and in the context of groups such as these can be affected by staff changes “the HSE in particular would have built up a good relationship with us and the staffing changes can affect that as well. There was somebody who was very good and she just left now, and she's been going to be replaced with somebody else who I haven't met yet but...em it depends on the people as well” 19HD_115831

However, relationship-building was not a positive experience for all, as one member explained “it's the different organizations that maybe work together...they know each other and they'd be meeting for coffee or that kind of thing so they have a relationship but then the ones who are

outside like me or the two new people who are coming in...we're not part of an organization, we're standing on our own outside" 8HD_103333

When established, the benefits of those relationships can extend beyond the group meetings, "...but that co-operation certainly has lasted outside of the group because there are people now that I can contact, nothing got to do with this group, if I want to find out about something or...do this thing, or did you see that? And I find that very helpful" 1HD_115849

5. *Interactions at meetings*

This concept is intended to capture the overall contribution that individuals make to the group meetings. Interviewees were asked to describe the meetings and the level of interaction between people. Many interviewees spoke about regularity of meetings, or expressed concern about attendance, "there is an issue sometimes of people...they don't attend and don't tend to substitute or there's no report sent to me...in fairness, when the people are there they're all interested, they're all engaged and they're asking questions so I would say there is good engagement" 11AF_153417

"I know it sounds like I'm talking out of school, but you've asked me to be honest with you...and so I say the attendance at some of these meetings were not good" 11HD_093751

Others discussed the change that had occurred in the general atmosphere of the meetings when the move to online meetings occurred, "...everything became very formal and, you know, people give their report, but there was less... people who are less inclined to interact...you just do your report next, next...and that was the complete opposite to when people were meeting face to face" 12AF_143541

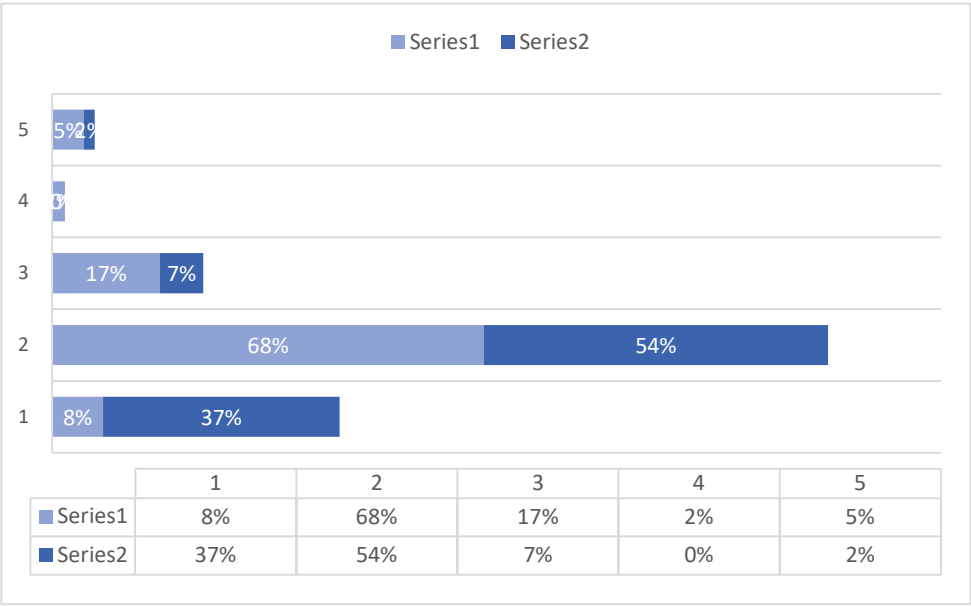
Regularity of meetings was pretty good...it would have been pretty good, I'd say two thirds to three quarters. At the moment, are we getting 50 percent...people are sick of Zoom as well...it's very easy to say...Christ not another Zoom meeting, how was I get out of this one." 12AF_153209

While expressing a generally negative view about the group, one interviewee found that as a minimum, the fact that meetings were held was a positive indicator, "...look I suppose the positive thing was no meetings were ever cancelled due to poor attendance. So I think people were wasing to turn up wasing to give their ideas and wasing to see how we could progress it...you

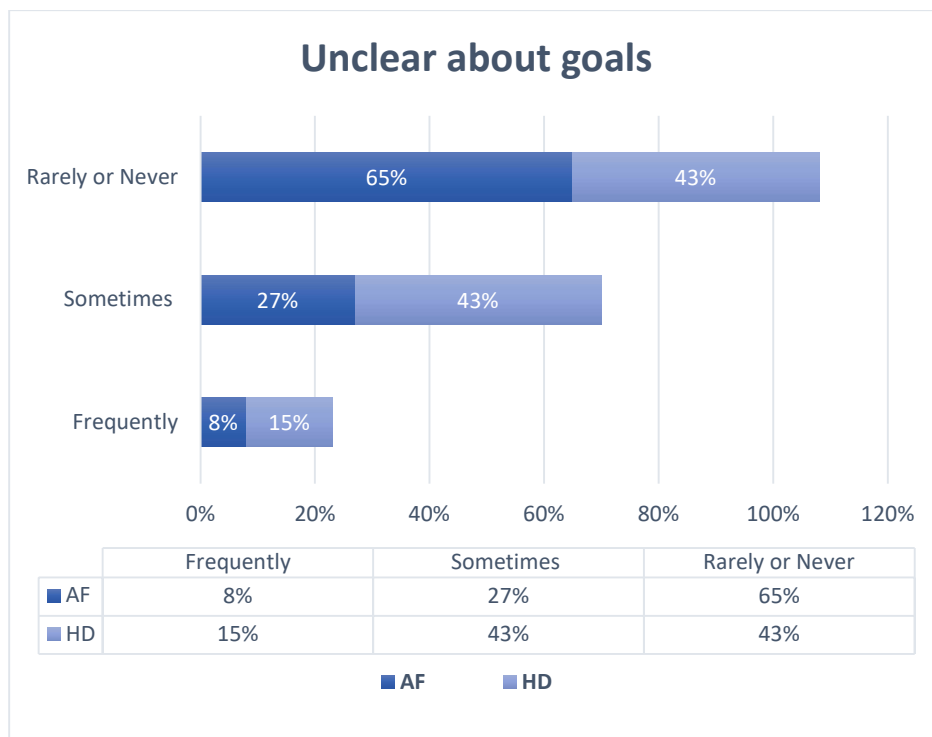
know, it's such a busy sector so you see people giving up their time and coming on and giving their ideas...there is some positivity” 3HD_123804

A final comment suggests an understanding of the significance of meeting attendance for the group, “the level of involvement [in the meetings] has increased dramatically over the three years...and we tried to get the same person because if there is continuity...because it takes a while even to build a group...an alliance, to get people to maybe be more open with each other” 13AF_175834

APPENDIX 40 OPINIONS ON EFFECTIVENESS



APPENDIX 41 OPINIONS ON GOAL CLARITY



Most respondents express positive views about behaviours in their networks. The majority 'frequently agree' with all positive statements about network behaviours across both programmes.

APPENDIX 42 COLLABORATIVE BEHAVIOUR STATEMENTS

How often are the following statements true?	Most of the time		Sometimes		Rarely/ Never	
	AF	HD	AF	HD	AF	HD
If conflicts or disagreements arise, members discuss them openly to find a solution	70%	60%	14%	23%	16%	18%
Different people lead the discussion, and most people contribute equally	64%	30%	31%	56%	5%	13%
Members challenge each other to find better solutions to issues	23%	20%	49%	49%	28%	31%
Members offer support and advice to each other to help solve problems	79%	60%	19%	38%	2%	7%

Members share information freely to increase understanding of issues	86%	60%	14%	30%	0%	6%
Members are primarily focused on the activities carried out by their organisation	68%	60%	29%	36%	3%	5%
Members are encouraged to express their views before a decision is made	79%	70%	18%	21%	4%	9%
Members seem reluctant to tell others what they really think	5%	10%	55%	52%	39%	39%
Many members sit back and let others do the work	9%	20%	54%	56%	38%	22%
Members share the same goals and are committed to working together to achieve them	62%	52%	33%	38%	5%	10%
I feel we are very united as a group and work really well together	55%	30%	41%	57%	5%	14%

Similarly, the majority of respondents stated that negative statements about the behaviours in their network were rarely or never true. However, there were some exceptions; for example, in response to the statement that 'Many members of the group sit back and let others do the work' 20% of HD respondents said that this was frequently true and 56% said it was sometimes true. This is compared to 9% and 54% in the AF programme. In the HD programme 15% of respondents said it was frequently true that they were unclear about the goals of the programme and further 43% were 'sometimes unclear' compared to 8% and 27% in the AF prog

ramme (see Appendix 1 Table xx)