Challenges of collaboration in implementing radical food innovation in the Swedish institutional Context

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Abstract

In the transition to more sustainable food systems, food innovations, especially radical ones, are considered a key solution. However, implementing them is not without institutional, cognitive, and cultural challenges. Implementation of these innovations is a complex process, requiring integration of sociocultural, institutional, and policy changes. Therefore, solutions cannot be addressed solely by entrepreneurs or the private sector. Collaboration and communication between governments and other stakeholders are in demand. Innovative solutions in food are usually proposed by innovative entrepreneurs who play a role in developing solutions for sustainability. However, those micro/small entrepreneurial businesses often face difficulties in establishing collaborations with other stakeholders. In order to understand what makes the collaboration and communication between radical food innovation projects provided by micro entrepreneurial businesses, and the institutional innovation support in the Swedish food sector seem to experience perceived dysfunction, this thesis mainly focuses on one of the intangible factors, which is interaction at the meso level that specifically takes place during the implementation stage of radical food innovations between micro-entrepreneurs engaged in radical food innovations and public authorities. To do so, the study focuses primarily on identifying the different discursive frames that shape the stakeholders' understanding of the interaction process that occurs during the implementation stage of these innovations, which can provide an initial understanding of how stakeholders construct the interaction process. Three discursive frames emerged from the analysis: speed frame, cautious frame and emotion frame. Additionally, the analysis adds an additional layer of understanding, as it revealed potential tensions between the frames and their underlying assumptions, which were elaborated further by paradox theory. Three potential paradoxical tensions emerged from the discursive frames: speed/cautious, fear/hope and bureaucracy/innovation. Although stakeholders may not be aware that they are framing and there are paradoxical tensions, the analysis illuminates a number of tension management strategies that appear to be useful to be adopted for collaboration and communication improvement.

Keywords: Radical food innovation, Collaboration, Implementation, Regulation, Bureaucracy, Administration, Policy, Discursive frame, Paradox.

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1. Introduction

1.1 Problem formulation

Food innovation refers to the process of challenging and transforming traditional food systems to create more sustainable practices (Geyzen et al., 2019) across the food chain from production and distribution to sales, consumption, to waste handling (Uzel, 2021). In the context of global challenges, radical innovations in food play a critical role in transforming the traditional food industries (Kuzminov et al., 2018). Radical food innovations (RFI) are defined as a transformative change in the food industry that incorporates a high degree of novel scientific and technological knowledge, altering markets, production processes, business models, socio-cultural relations, and consumer lifestyles. Despite the promise of radical innovations, there are challenges related to public perception, policy, regulations, and the sustainability of new technologies (ibid.). Innovations in food are widely recognized as a key solution to addressing the challenges of food security, malnutrition and sustainability (Kuzminov et al., 2018; Bigliardi et al., 2020; Pamplona et al., 2024). Implementing and developing innovative solutions cannot be addressed solely by entrepreneurs or the private sector (Mahardhani, 2023). Their implementation demands collaboration between governments and other stakeholders (Pamplona et al., 2024), and coordinated actions across the entire food supply chain (Jurgilevich et al., 2016). In addition, stronger communication and interaction between business and government need to be developed more intensively for policy and governance development contribution (Sanina et al., 2017). This is because companies such as food companies need to engage with diverse forms of knowledge, which requires active participation of external partners (Rauter et al., 2017; cited in Bigliardi et al., 2020). In addition, implementation of these innovations is a complex process, requiring integration of sociocultural, institutional, and policy changes (FAO, 2021), as innovations today are not only about technological advances for productivity and economic growth but also involve new social and organizational structures—norms, views, arguments, identities, and interactions (Leeuwis and Aarts, 2011).

Innovative solutions in food are usually proposed by innovative entrepreneurs who play a role in developing solutions for sustainability. Innovative entrepreneurship generates new products, production methods, services or business models that drive firm development and societal growth (Agarwal, Audretsch, & Sarkar, 2007; Carree and Thurik, 2003; McKelvie, Brattström, & Wennberg, 2017; cited in Bradley et al., 2021). However, those micro/small enterprises are typically in a middle growth stage—who are beyond the very early stages, and not yet reached the scale or stability of well-established companies, they are not yet eligible for certain types of policy interventions designed for large, established companies (Bradley et al., 2021), and they are not yet very well-researched (Sweden's Food Arena, 2021). In the Swedish food sector, approximately 95% of innovative food businesses are micro-enterprises with fewer than ten employees, with significant potential to contribute to local economic growth. These companies often face difficulties in establishing collaborations with other stakeholders (ibid.).

Typically, collaboration in the innovation process involves four main stakeholders: academia, entrepreneurs, government (including policymakers and the administrative agencies), and society (Leontjevs and Ādamsone, 2013). However, although administrative structures in Sweden are designed to support innovation, they are often perceived as complex and rigid, slowing down the innovation process (Sweden's Food Arena, 2021). This illustrates how the broader institutional environment—comprising both formal and informal constraints—shapes the complex interactions between public administrations and private actors, which can either support or impede innovative entrepreneurship (Bradley et al., 2021). These constraints include both formal (regulations, laws, constitutions, and property rights), and informal (codes of conduct, taboos, sanctions, customs, and traditions) elements (Bradley et al., 2021). According to North (1990, p. 97, cited in Bradley et al., 2021) these are "humanly devised constraints that can structure political, economic and social interaction"—which influence how actors relate and collaborate in practice. Therefore, when stakeholders collaborate to apply innovation, the space for meaningful change—called a discursive space, where the sphere of doing and the sphere of thinking come together—is often constrained by institutional and organizational complexity, including networks and actors that are shaped by prevailing views, social relations, and conflicting goals and assumptions (Aarts and Leeuwis, 2008). In addition, Gray (2004) highlighted that the failure of collaboration is not solely due to procedural or organizational factors, but can also be explained by the different frames adopted by the stakeholders regarding the issues, the nature of the interaction, and their identities, all of which significantly impact the possibility of collaboration. This leads us to the importance of understanding the spaces and contexts in which actors interact when implementing innovation. This aligns with van Wijk et al. (2018), who emphasize the role of

meso-level interactive spaces in fostering collaboration, co-creation, and the adaptation of innovations within broader institutional contexts. Stahl et al. (2024) point out that the meso-level—where interactions among actors, organizations, and systems take place—remains underexplored in innovation research. The authors demonstrate that these intermediate organizational levels are key in shaping, interpreting, and sustaining innovation processes by bridging individual projects and broader institutional contexts. I argue that this level is also particularly important for understanding the communication and collaboration challenges that emerge during the implementation stage of RFI.

The innovation process is not only technical or economic but fundamentally social and communicative (Reynolds et al., 2023). Creativity often depends on intangibles like communication, interaction, collaboration, knowledge, reputation, culture, flexibility, trust and social capital. These intangibles are keys to creating and sustaining dynamic multi-channel networks inside innovation ecosystems, however they are often overlooked in studies in favour of more tangible resources (O'Donnell et al., 2003; Luoma-aho & Halonen, 2010; World Intellectual Property Organization, 2017). Therefore, to understand what makes the collaboration and communication between RFI projects provided by micro entrepreneurial businesses, and the institutional innovation support in the Swedish food sector seem to experience perceived dysfunction, this thesis focuses on one of the intangible factors, which is interaction that specifically takes place during the implementation stage of RFI. Understanding the interaction can contribute to improving the collaboration and communication that play a role in enhancing the level of innovation in the Swedish food sector. Järvelä et al., 2016 argued that interaction plays a role in enabling collaboration and communication. In addition, stakeholders' interactions play a key role in helping environmental research contribute to the societal shift toward sustainability (Knaggård et al., 2019). To do so, the study focuses primarily on identifying the different discursive frames that shape the stakeholders' understanding of the interaction process that occurs during the implementation stage of these innovations, which can provide an initial understanding of how stakeholders construct the interaction process. Every stage of innovation (creation and definition, adoption and implementation, and development and management) presents its own opportunities and challenges, anticipating these challenges and taking proactive measures to reduce them can increase the chances of long-term innovation success (Ye, Jha, & Desouza, 2015).

1.2 Research Aim and Questions

This thesis explores how inter-organizational stakeholders—specifically micro-entrepreneurs engaged in RFI and public authorities in Sweden—construct meaning around the interaction through the institutional discourses. By examining these discursive constructions, the study contributes to the understanding of what makes collaboration and communication seem to experience perceived dysfunction at the stage of implementation. Gaining this understanding is essential for improving communication and collaboration in the context of RFI.

To achieve this aim, this thesis will address the following questions:

Q 1: How, with what discursive frames, do stakeholders construct the interaction process in the context of RFI implementation challenges?
Q 2: Which tensions emerge from the discursive frames? How can these tensions be theorized?
Q 3: How do the stakeholders perceive, respond to and cope with the tensions?
Q 4: How do these frames and emerging tensions influence the interaction process, and in turn, shape collaboration and communication?

2. Research Design

This chapter outlines the research design, detailing the selected approach, data collection process, theoretical and analytical frameworks, and a methodological reflection.

2.1 Study Approach: Interpretive

For interpretive approaches, individuals' perspectives are rich in meaning, formed gradually and often with difficulty through the ongoing efforts of ordinary people facing concrete, uncertain, complex, and persistent challenges (Hajer and Wagenaar, 2003, cited in van Hulst et al., 2024). This study adopts an interpretive approach grounded in a social constructivist worldview, which suggests that reality is constructed and given meaning through social interactions (Schwartz-Shea and Yanow, 2011; Putnam and Banghart, 2017; Creswell and Creswell, 2018). This aligns with the thesis aim, which focuses on how meanings around the interaction process are constructed through the discourses used by stakeholders in the context of implementing RFI, in order to contribute to the understanding of what makes the collaboration and communication seem to experience perceived dysfunction in this context. Furthermore, in organizational communication, scholars examine how meaning is created through language, symbols, and social interactions. These approaches have shaped studies on topics like organizational discourse, culture, identity, change, and the ways in which individuals or groups explain and justify actions and decisions within an organization (Putnam and Banghart, 2017). Multiple meanings emerge from these interpretations, encouraging the researcher to explore the complexity of different perspectives (Creswell and Creswell, 2018). This study explores how meaning is created through language and social interaction. Accordingly, it adopts an exploratory analytical approach.

In connection with this approach, which is commonly associated with abductive inquiry, this thesis employs abduction as an iterative process of moving back and forth between the collected materials and theoretical literature (Schwartz-Shea and Yanow, 2011, p. 27). I engaged in an ongoing dialogue between the empirical data and the frame theory, refining my understanding until meaningful connections emerged. I first applied frame analysis, focusing on how meanings around the interaction process are constructed through the discourses used by stakeholders, which I refer to as discursive frame analysis. After the application of frame analysis, I recognized that some tensions between the identified discursive frames seem to cause challenges in collaboration and communication for implementing

RFI. Therefore, I moved back and forth between the documented findings (discursive frames) and the paradox theory to explore and explain the tensions. For further elaboration on the application, see section 2.3. The tensions were not predefined but rather emerged inductively from the interaction between discursive frames, and they had the character of paradoxes, where competing demands coexist. I found that paradox theory (Lewis, 2000) provided a useful theoretical lens. In addition, I adopted a constitutive approach, as Putnam, Fairhurst, and Banghart (2016) argued that social interaction and language are key to how paradoxes develop, emphasizing a constitutive approach to understanding paradoxes in organizational communication. Furthermore, I consciously maintained a self-reflexive approach throughout, aligning with the recommendations for qualitative research outlined by Creswell and Creswell (2018). This is particularly important in an interpretive approach, where the researcher plays a central role in sense-making and data interpretation (Schwartz-Shea and Yanow, 2012, p. 109). Reflexivity is defined as "a set of continuous, collaborative, and multifaceted practices through which researchers self-consciously critique, appraise, and evaluate how their subjectivity and context influence the research processes" (Olmos-Vega et al., 2023, p. 241).

2.2 Data sources and collection

This study used a qualitative method to achieve its research aim. It offers an in-depth understanding of stakeholders' perspectives and discursive patterns regarding their experiences and challenges during implementation. The flexibility of qualitative research makes it suitable to study the interaction process influenced by social and managerial factors. It helps uncover patterns, themes, and meanings constructed through the stakeholders' discourses. This method is also used to gain insight into a specific context rather than to generalize findings. To understand the inter-organizational interaction process, this study integrates multiple data sources: a seminar (YouTube-recorded video), interviews, a podcast, and a case study document. Given that communication and interaction take place across different contexts, relying on a single source would risk overlooking the diversity of discourses shaping these interactions. The selected data represent key discursive arenas where stakeholders involved in the innovation implementation process construct meanings and express concerns. The seminar (YouTube video) captures social interaction among the key stakeholders who are the focus of this study. The podcast similarly represents a social interaction between micro-entrepreneurs and a consultant agency, which also occurs within the norms of public discussion. In contrast, the interviews provide individual reflections, free from the norms of public discourse, allowing micro-entrepreneurs to articulate their experiences and perspectives more openly. Lastly, the case study document offers an additional

layer of insight by presenting perspectives from a real-world project. These naturally occurred (YouTube video, podcast and report), and produced (interviews) data, provided both authentic interactions and targeted reflections. By incorporating diverse discursive arenas—ranging from structured institutional discussions to informal reflections—this multi-source approach enables a more nuanced analysis of how stakeholders frame the interaction processes. This methodological choice aligns with the need to capture the complexity, where discourses emerged and evolved in various communicative settings. Flick (2014, p. 11-12) highlights using diverse data sources, which provides a more comprehensive understanding of the research topic by revealing insights not apparent from a single source. In order to identify patterns, themes, and relationships within the data, I transcribed the raw data types into written text, this process also facilitated the management and integration of the diverse data sources—(Flick 2014, p. 75).

Audiovisuals: The dataset includes one audiovisual material (a non-participatory online event) that was transcribed and translated. This is a YouTube-published seminar that forms part of the discourses I am investigating. The seminar was selected as a data source because it provides unique insights into the interaction process during the implementation of RFI in Sweden. It features key stakeholders, including three micro-entrepreneurs, eight representatives from various public authorities, two representatives from a consultancy agency specializing in collaboration models, and one representative from an NGO-driven food innovation. According to Fazeli, Sabetti, and Ferrari (2023), videos as data help researchers understand the evolution and transformation of human interactions and relationships, as well as the emergence of patterns under various conditions and interpretations. The discussion highlights real-world challenges, particularly regulatory barriers, and emphasizes the need for improved communication and collaboration. By analyzing the discourse in this seminar, this study gains valuable perspectives on how different stakeholders frame the interaction process through their discourses. As the seminar is publicly available, ethical concerns such as informed consent do not apply. The seminar originally in Swedish and was translated into English. **Interviews:** The dataset includes three interviews with micro-entrepreneurs, directly involved in implementing RFI. These interviews are crucial to understanding the interaction process. The perspectives offer first-hand insight into how interactions unfold and the challenges they face when navigating regulations, institutions, and bureaucracy. These interviews provide valuable insights into the dynamics at play in these interactions. One semi-structured interview (one-on-one) with a micro-entrepreneur lasting 45 minutes was conducted virtually via Google Meet. This entrepreneur's activity is in circular urban farming. Another 40 minutes of an unstructured walk-and-talk interview was also with a circular urban farming micro entrepreneur. The third was a 35-minute

semi-structured virtual interview via Zoom with a hydroponic urban farming micro-entrepreneur. Interview questions focused on the challenges encountered during the implementation of innovations and the ongoing challenges they continue to face. These discussions also provided insights into how these challenges are influenced by, and reflect, the broader interaction process. **Audio recording:** The dataset also includes a podcast, offering real-time, informal discourse that provides insights into the interaction process. It enhances the understanding of the challenges entrepreneurs face. It features a discussion between a micro-entrepreneur, and a consultant agency. This conversation highlights real experiences navigating the administrative system, shedding light on the challenges and complexities encountered in implementing RFI. The podcast was produced in Oct-2024 and uploaded to a social media platform. It captures authentic, real-time perspectives. Unlike the structured interviews, the podcast is a more spontaneous and informal discourse. It complements the interviews by adding further insight into the interaction process. The audio originally in Swedish, was transcribed and then translated into English.

2.3 Theoretical Framework

This section outlines the two theoretical choices (frame and paradox theories), and explain how they are applied to the aim of this thesis.

2.3.1 Frame-driven Paradox Approach

This thesis draws on two complementary theories to understand the communication and collaboration in RFI implementation: frame theory and paradox theory. Frame theory guided the identification of the discursive frames, while paradox theory enabled a deeper interpretation of tensions within and between those frames. Frame theory is the primary analytical lens, revealing how stakeholders interpret the interaction process through discourses, which is central to this study's aim. Gray (2004) highlighted that the failure of collaboration is not solely due to procedural or organizational factors, but can also be explained by the different frames adopted by the stakeholders, understanding stakeholders' frames is key to understand the development of collaborative partnerships and the possibility of their success or failure (ibid.).

After the application of frame analysis, certain contradictions were recognised between the frames, which seem to contribute to tensions. Initially, those elements within the frames appear to make sense on their own when examined in isolation, but upon closer examination, contradictions arise. Frame analysis helps recognize

these tensions between frames and their underlying assumptions, as Entman (1993, p.55) stated that "Many...texts exhibit homogeneous framing at one level of analysis, yet competing frames at another". However, to better understand the nature of these tensions and their impact on the collaboration, and whether the stakeholders are applying coping strategies. If so, then what makes collaboration and communication continue to experience perceived dysfunction? I found paradox theory (Lewis, 2000) provided a useful theoretical lens, as the tensions displayed typical paradox traits and this helped in deepening the understanding. Vangen (2016) proposed that collaborations that seek to address multifaceted societal challenges are paradoxical by nature, therefore, the paradox lens can help better understand cooperation dynamics and how to lead and manage collaborative efforts, ultimately leading to better outcomes for addressing pressing societal challenges.

2.3.2 Frame Theory and Frame Analysis in a Discursive Context

Bateson (1973) described framing as a meta-communicative process where actions become signs that contribute to specific understandings in the course of interaction (cited in van Hulst and Yanow, 2016). According to Erwin Goffman (1974), cited in van Hulst and Yanow (2016), frames serve as cognitive structures that guide how individuals perceive and communicate social realities. Goffman emphasized that the definition of a situation is developed or adapted unconsciously by the parties through the course of interactional communication (ibid.). Goffman defined a situation that is constructed by various interpretations, in which various modes of "framing a situation" are involved as a competition to shape ideas (van Hulst and Yanow, 2016). This competition moves the focus from individual preferences to a common understanding, aligning with Schön and Rein's (1994) view that frames are constructed through actors' interactions and are context dependent (ibid). Frames manifest during communication, where some information and features of a situation are highlighted and become more noticeable and meaningful to the audience, while others seem to remain absent (Entman, 1993). This study focuses on reconstructing frames within the discourses. Frame analysis is an approach that provides interpretive perspectives on social interactions. It examines the meaning-making process, which can be either conscious or unconscious (Lindekilde, 2014), and helps reveal the socially constructed nature of reality. By identifying what is included or excluded, frame analysis reveals embedded meanings within a given scene and highlights areas needing aspects that may require transformation (Lindekilde, 2014). In this thesis, frame analysis focuses on understanding how the interaction process is framed through the language used by stakeholders. The analysis examines the two functions of frame: diagnosis of a situation and the action

bias related to the situation (van Hulst and Yanow, 2016). The first function answers "What is happening?" and the second answers "What should we do?" These questions are central to human interaction and meaning-making (Schön and Rein, 1994; van Hulst and Yanow, 2016). The analysis explores how language constructs and makes salient particular elements of the interaction process and how stakeholders frame them. Sense-making involves multiple interpretations shaped by actors' experiences, skills, and education that could frame the situation (van Hulst and Yanow 2016). It also includes aspects that are drawn upon from indirect and direct intersubjectivity interactions with others (ibid.). In this thesis, the diagnosis refers to how stakeholders construct meaning around the interaction process that takes place during the implementation stage of RFI, while action bias reflects their suggested responses. Recognizing the salient elements of the diagnosis & action bias enables the reconstruction of the frames in the analysis.

The analysis focuses on identifying the elements that are made salient through the use of language, phrases, metaphors, themes, statements, and keywords. I focus on reconstructing discursive frames, a specific application of frame analysis. Discursive framing refers to the use of specific words, concepts and phrases to define problems, assign causes, and suggest […] solutions (Rushton & Williams, 2012; cited in Ngqangashe et al., 2022). "Scholars locate frames in the discursive system which people use in daily communication, and argue that the study of frames gives insight into how people understand and negotiate their world" (Fisher, 1997). Framing and discursive approaches both examine how language shapes social interactions (Van Hulst et al. 2024). Drawing on the work of Entman (1991, 1993), frames can be manifested through the presence or omission of specific words, language, metaphors, phrase clusters, sources of information, and evaluative statements within the text. In my analysis, frames are not judged as positive or negative; rather, I assess their salience and role in shaping the discourse.

I grounded my analysis on van Hulst and Yanow's work, derived from Schön and Rein's concept, which illustrates a framework for analysing the framing process in policy settings, a process that is depicted as containing a diversity of participants. I found the analytical framework even applicable to the topic of my study, which focuses on the interaction process at the interorganizational level. I focus on reconstructing the embedded frames of the stakeholders through the discourses. Frame analysis acknowledges that stakeholders may not be completely conscious of how their actions are influenced by underlying frames (Westin, 2019; Schön and Ren 1994; Van Hulst and Yanow, 2016). Therefore, this approach helps highlight the different constructed meanings used by stakeholders through the discourses. Van Hulst and Yanow (2016) explain that framing and reframing involves three types of entities: the substantial substance of the [...] issue, the identities and

relationships of players involved in [...] process, and the [...] process itself (Van Hulst & Yanow 2016; Dewulf et al. 2009). Since this thesis concerns the stakeholders' meaning assigned to the interaction process, the analytical framework emphasizes the process frame. A process frame refers to the way in which participants interpret their interaction process (Dewulf et al., 2009). According to van Hulst & Yanow (2016, p.103), the following section outlines the iterative steps used to conduct the frame analysis.

The data set includes audio recordings, audiovisual, interviews and written documents (see Section 2.2). I first read the data for familiarization. I approached the materials with the concept of process entity in mind (van Hulst and Yanow, 2016). Analysis revealed that meaning-making around the interaction process was central to the stakeholders' perspectives. This aligned with the research objectives, providing valuable insights into the interaction process. I applied qualitative content analysis (Schreier 2012) to categorize and analyze the data, identifying patterns, themes, and meanings within the material, while remaining grounded in the context of the research objectives. Integrating framing theory allows identification and assessment of the salience elements within the text, revealing underlying themes and highlighting key features (Entman, 1993; Scheufele, 1999). Three color-coding rounds were conducted. In the first round, I focused on relevant words, phrases, metaphors, and statements related to the interaction process. These include content where stakeholders discussed collaboration efforts, challenges, decisions, barriers and opportunities, acceptance and rejection, justification, timing, emotions and mixed messages. Second, on expressions of goals, interests, demands, and perspectives. Third, on shared stories about prior experiences. Fourth, on the incorporated values embedded in interaction. In the second round, I paid attention to the discourses, focusing on the language, concepts, and definitions that were conveyed through words, phrases, statements, and metaphors related to the interaction processes. After all, I compiled all highlights in one single document, and I examined the language used. In the third round, I focused on the types of situations the stakeholders are diagnosing and how they form the associated action biases, and I focused on the underlying assumptions to distinguish between those categories that appeared through the key materials. Additionally, I paid attention to what was not mentioned about the interaction process. Furthermore, I simplified the findings and drew the preliminary frames. These were followed by supervisor discussions and feedback. I repeated these steps until reaching the final discursive frames, see chapter 3.

2.3.3 Paradox Theory and Application

This analysis draws on Lewis's (2000) framework for exploring paradox. Lewis (2000) in *Exploring Paradox: Toward a More Comprehensive Guide*, explains that interconnected elements (e.g., demands, emotions, messages, interests, perspectives, practices) that seem illogical and conflicting when they coexist but are logical when viewed independently are paradoxes. I found this definition aligns with the types of tensions revealed by the frame analysis. Lewis (2000, p.771) also argues that "paradoxes are recognizable and socially constructed by the actors' rhetoric and conversations", making the framework useful for understanding the tensions, and their impact on the collaboration and communication, and whether the stakeholders are applying coping strategies. If so, what makes the collaboration and communication continue to experience perceived dysfunction? In this study, the tensions emerged from the interplay between discursive frames, their underlying assumptions and interpretations, supporting de Carlo's (2005) view that frame analysis can be used initially to map conflicting viewpoints in negotiation settings, and that integrating paradox theory enables deeper understanding of the tensions, and facilitates transformation in complex cases. Similarly, Shu (2022) also highlights the value of combining paradox and framing theories to gain an understanding of how possible tensions can be managed during the development of sustainable new products. Therefore, the first step for exploring paradoxes, according to Lewis (2000), is identification, which includes recognition and interpretation of the tensions. Although stakeholders may be unaware they are framing the interaction process or managing tensions, by focusing on the language and interpretations within the discursive frames, it became possible to observe how tensions emerged and were potentially managed. The analysis examined how stakeholders (such as micro-entrepreneurs and authorities) responded to tensions through frames that included narratives and co-developed meanings. Tensions were classified based on Lewis (2000) as either salient and negotiated through sensemaking or latent unnoticed and persistent due to inherent complexity (Smith & Lewis, 2011). Lewis (2000) classifies interrelated paradoxes into three types: self-referential loops, mixed messages, and system contradictions (Putnam, 1986; cited in Lewis, 2000, p. 763). Following Lewis's framework, I categorized tensions under learning and organizing paradoxes. The next step was to conceptualize and map paradoxes to represent tensions. Mapping paradox helps represent tensions and defenses in actions (Lewis, 2000). A both/and approach was used to conceptualize the tensions and mapping was used to detect how stakeholders implicitly defend contradictions or manage them.

2.4 Methodological Reflections

The qualitative approach provided a rich, context-sensitive understanding of communication and collaboration in the context of RFI within the Swedish food sector. However, applying frame analysis as the primary analytical method also posed certain challenges. Identifying frames requires moving beyond the surface meaning of language and making inherently subjective interpretations. I address this through iterative reading to ensure consistent, grounded interpretations. Frame analysis allowed for recognizing the tensions that were not visible in the raw data. Documenting frames and their assumptions helped surface these tensions. Interpreting paradoxes requires recognizing latent tensions, which requires attentiveness to statements, narratives, phrases, keywords and metaphors that are used by stakeholders to frame the interaction. Another methodological consideration was the use of multiple data sources. While this strengthened the findings, it introduced varying constraints across data types. For instance, interviews enabled probing meanings, but the seminar and podcast provided limited ability for clarification. Securing interviews for this study was challenging, emails alone were not sufficient. Instead, the most effective method involved attending events related to agriculture, food and innovation, where I could engage directly with participants and explain that I am conducting academic research and seeking their perspectives. This approach facilitated scheduling interviews. Prior to the interviews, I sent each interviewee an official email that included a consent letter. All the data were handled carefully to ensure trust and research integrity. Additionally, to ensure privacy, participant identities were anonymized to protect personal data and prevent confidentiality breaches. Stakeholders in this study were selected based on their direct involvement in the challenges of implementing RFI. Finally, I acknowledge that my interpretive lens influenced how I engaged with and interpreted the data. My position as an environmental communication student and a non-native participant in the Swedish food system may have shaped how I interpreted the stakeholders' experiences and discourses. This positionality was both a limitation and a strength—allowing me to view the data critically but also empathetically from a semi-outsider's perspective.

3. Findings

By applying frame analysis to the discourses of stakeholders involved in the RFI implementation process, three distinct process frames emerged: the speed frame, the caution frame, and the emotion frame. These frames highlight the different ways in which the interaction between actors is understood. In this chapter, I will present the results of the analysis by reviewing the diagnostics of the interaction process as they emerged in the discourses, along with the action biases associated with each frame. Following that, I present the emerged tensions: speed/caution, fear/hope, and bureaucracy/innovation.

3.1 Frames

3.1.1 Speed Frame

The first process frame is the speed frame, which encompasses slow vs. fast (time). This frame's diagnosis consists of bureaucracy as an obstacle, a complex regulation, a cultural mindset, administrative control, and traditional communication. The diagnosis includes the need to accelerate the interaction process, as slow administrative procedures and delayed responses are portrayed as obstacles to timely innovation. The diagnosis includes the importance of fast interaction for innovation success to meet the urgency of sustainable food. Discourses within this frame reveal the importance of rapid interaction for the success of innovation. Rapid interaction is considered essential for addressing pressing issues and implementing required changes without unnecessary delay. Through the language used, these discourses demonstrate a preference for urgency and quick action. Words such as "push," "quick," "urgent," "pace," and "agility" are used to shape a narrative that prioritizes immediacy and efficiency in action. This frame positions fast interaction not just as a necessity but as a viable pathway to accelerate the innovation implementation, casting slowness in communication and interaction as a major obstacle to innovation success, contributing to the idea that moving fast is the way to go. Speed-related terms are strategically used to reinforce the idea that rapid and fast responses are essential for achieving successful outcomes. Statements such as: “From a business perspective, it takes a lot of time to have authority contacts, time that you could otherwise spend on your business”, “The slow processes of the administration do not go together with the needs of innovative companies for fast processes, “ it's a fast-moving environment”, “We need to move forward much faster than before”, and “If we don't go faster, we're gonna have trouble”. All of these statements show how the slow interaction process is perceived

as a key barrier to fast action and decision-making. These statements reflect how slow interaction is viewed as a challenge that must be overcome to ensure rapid movement in the innovation process.

The discourse within this frame also used comparison language through metaphor, contrasting the desired fast responses with the slow responses. The food sector is compared to sectors such as the automotive industry to intensify the call for urgency in food innovation. For example, in a cohesive statement, such as:

> "If we compare it with, for example, the car industry. In the car industry, they said 10 years from now, 15 years from now, you will not be allowed to sell a car with a combustion engine anymore. Right? That's what's happening. Right? So, the car industry has a knife against the throat. Suppose they don't fix that and get essentially battery cores up and running. They're going to have a real problem, right? Yeah. But nobody has said that if you don't produce food sustainably, you're not allowed to sell food. No. But the food production system is a big problem from a climate point of view. As the transportation industry is, we would be a sort of thing because we can put pressure on the primary transport industry, but we don't put the same pressure on the food supply chain".

The statement suggests that, although the food industry presents a similar environmental challenge to the transportation industry, there is less pressure on the food supply chain than in the automotive industry. The discourses depicted pressure as positive for reinforcing fast responses and actions that can lead to fast transformation. Through this comparison, it is concluded that there is an urgent need to stimulate change in the food sector through sustainable innovation, with the process being accelerated by activating strategic communication and raising awareness.

The discourses within this frame include the current bureaucracy, which is depicted as an impediment to the implementation of food innovation and sufficient communication. The discourses attributed the slow pace of communication and approval for the innovation to these systems. In the discourses, shared experiences of stakeholders on navigating bureaucratic language, describing it with a phrase like "difficult to understand' and it is burdened by hierarchical complexity. Terms such as "the system needs to be changed," "the system is complex," and expressions like "movement" and "shift" were used to signal a demand for radical transformation in the system to align with the goals of food innovation. These phrases underscore the diagnosis that the current system slows down the advancement of food innovation and hinders the communication process. The term "slow" was frequently linked to negative outcomes, positioning it as a significant barrier or obstacle to successful innovation. Within the speed frame the current system was connected with the term "slow," associating it directly with negative outcomes for both innovation and communication, thus positioning it as a barrier to success. The terms "movement"

and "shift" were used to express the urgency for the system to evolve, signalling the need for a complete transition to a new approach and emphasizing the scale of transformation required within the bureaucratic, administrative systems and regulatory processes. These expressions and terms reflect the stakeholders' understanding of the interaction process, which is viewed as directly impacted by institutional and systemic challenges.

The discourse described bureaucracy as a long, hierarchical structure, as evidenced by statements such as: “There are many authorities involved, and as an entrepreneur, you can feel lost and alone in this, having to navigate this entire process and knowing who to contact”, and “We would have gained two or three years compared to our European colleagues in this field.” Furthermore, the bureaucratic system is described as slow, complex, and inherently complex, involving a large volume of requests, traditional working methods, and multiple administrative requirements. The discourses in this context also highlight the slowness of responses and the time-consuming nature of interactions, which impact the speed of the interaction process, as seen in the following statements: “Communicating with authorities takes a long time, time that could be used for your work. Long response times.”, “There are fewer innovations now than there were a few years ago because of the slowness of the system” and “I said I have seen many examples where the innovation power has lost momentum precisely because the world of authorities has not facilitated or encouraged”.

The discourses reveal that the bureaucratic system struggles to adapt to changes and new procedures, primarily due to its routine nature and its learning constraints. The bureaucratic system appears to impose constraints on this transformation by clinging to its established structures, rules, and traditional ways of working. Conversely, innovation requires real transformation, which the current system struggles to accommodate. “Companies and authorities together must look at how we raise the level of knowledge. We have to find ways to do that. We've received some grants and so on, so I see it as a bit of our role to be able to do that as well. but in the long run, we cannot have the situation where we, as entrepreneurs, constantly have to educate…about what we are willing to help to do it together” Thus, the discourse portrays bureaucracy as an inherited, slow, and complex structure that significantly slows down the interaction and the implementation.

In addition, another diagnosis of the speed frame is the need for regulatory facilitation. Terms such as "complex," "rigid," "hard," "outdated," and "not aligned" were frequently used in the language within this frame to describe the current regulations and policies. These regulations and policies, which are intended to support the implementation, were not perceived as essential tools for facilitation

but rather as barriers that slow down the communication process, which in turn complicates the flow of information and delays decision-making within the innovation process. This is clearly illustrated in one of the statements:

> "The first is that it is enormously time-consuming to understand the types of laws and regulations that you are affected by. It's about the fact that you have a lot of contacts, that there are many authorities involved and that as an entrepreneur, you can feel quite lost and alone in this and that you yourself have to pull through this whole process and figure out who you have to contact. I've personally experienced it firsthand, where you look at some rules and you say, yes, but I don't understand it, and then you dig deeper, and you get to the point where they point to European law on the EU website that says, yes, you have to follow these laws, and it is admittedly difficult to read. So I understand what they have tried to do, but it is admittedly difficult to read, and then I sit and clear my head and say, but this won't work. I can't, I have to be a legal expert to understand. And I'm not, and I can't afford to do that".

This shows that the current regulations fail to meet the needs of innovation, stressing the need for flexibility and a supportive regulatory environment to accelerate the process and facilitative roles instead of controlling administrative roles. This controlling role was described through one of the discourses within the speed frame as a role that has a braking and inhibiting effect on innovation "Regulations and the role of authorities in the innovation system are lagging, there are many companies today who feel that the authorities inhibit rather than promote innovation from happening".

In addition, the diagnosis includes the indication of the lack of adaptive communication practices rooted in traditional education and formalized ways of receiving and conveying innovative ideas. This mismatch between current communication methods and the needs of food innovation is seen as a barrier to communication and collaboration. The discourse demonstrates how traditional methods of communication associated with formal education are criticized, with report writing portrayed as an ineffective means of conveying innovation. This is demonstrated by an expression that dismisses reporting as useless, proposing a more sensory and experiential communicative alternative, such as:" we're trained at university to produce results in reports, there are many ways to learn and communicate, but learning reports are probably the least useful way. Right? I don't send a report to people who want to buy our products. I take them to our facility and let them smell it, taste it, hear it and experience it. And the same thing goes for so many other things. I mean, when we need the authorities to understand what we do, we invite them to come and visit us because then they will walk away enlightened, but if we write the report, it doesn't mean anything….It takes several years before the authorities reach the point where they go Oh! We understand, but also, everybody works in challenging circumstances. It's a lot of work and effort,

and they don't have the time. So, we also have to be better at communicating what we do in ways that mean they don't have to come and visit us".

This frame constructs a view that sees time as a critical factor in the success of innovation and the need to move beyond slow, traditional processes. The Frame constructs the urgent need to catalyze rapid change in the food system through faster, more effective engagement. It also emphasises the importance of reforming bureaucratic systems to enable effective innovation. This framework demonstrates how time can become a tool for negotiating the legitimacy and necessity of innovation.

The discourse reveals an action bias within the speed frame, emphasizing the need to transform bureaucratic structures to accelerate interactions. Collaboration is discursively framed as essential to this transformation, calling for a shift from siloed operations to unified, collective efforts. A statement within this frame has highlighted this demand: "Without food, there is no society. Everyone here is sort of employed with some kind of support system, and then we can't just have a controlling role…we must also take responsibility to help and promote the transition, then it would also be fun if the authorities also wanted to be involved in, for example, projects that we are conducting. I think it will be a way to speed up this transition, simply connect us closer." This frames collaboration not only as an ideal but as a necessary intervention to speed up the process. One concrete manifestation of this action bias is the Collaborative Multiagency Communication model. It is positioned as a direct response to bureaucratic slowness, enabling mutual learning and collective problem-solving between food entrepreneurs and public authorities. As described: "Pilots also bring the company together with a multi-agency expert group, which dives deep into this challenge and identifies key issues to work on." Further, the discourse promotes a shift from isolation to integration: "That means we need to move from working alone in silos to a more unified system and more cooperation. Also, take help from each other because there is also a lot of learning." This signals the importance of joint learning and alignment of priorities to support innovation and reduce delay. Leadership is also constructed as a key accelerant. The need for cultural change is tied to proactive, empowering leadership: "It requires powerful leadership, which also drives the cultural change that needs to happen. In order for employees to start thinking and acting completely differently, innovative thinking also needs to be rewarded by the authorities." Leadership here is not just directional—it is transformative, driving a faster, more innovative administrative culture.

3.1.2 Cautious Frame

The second emerged frame from the discourses is cautious. This frame diagnosis consists of careful regulation compliance, limited room to act, resource insufficiency, and the uncertainty of novelty of food innovation. This frame portrays the interaction process as vulnerable and deliberate. This suggests that thoughtfulness and deliberation are present in the interaction process when dealing with food innovation, particularly due to uncertainties. Caution may require careful and slow steps to avoid mistakes. The discourse diagnoses include the deeply rooted organizational work cultures within bureaucratic systems. The discourse points to a fear of making mistakes within the system, which leads to a cautious approach to decision-making. Bureaucratic cultures tend to reward safety and adherence to established protocols. This appeared through a choice of statements such as: "The cultural change is perhaps the absolute most difficult part, because you have to look at what kind of cultures, what kind of norms we have, how do we do things within an authority or between authorities?...And when you go through these processes, it can take several years, but it is not the fault of any individual, but rather the way the system has developed over a hundred years", and "There a fear of making mistakes, which means that you always need braces and waist belts before; like talking, you kind of don't dare to give any recommendation that you can get in trouble for feels like an administrator…It is like a culture that rewards the one who has done the right thing in all situations." As a result, the discourse portrays the interaction process as cautious, affected by the cultural mindset. For example, the discourse emphasizes regulation compliance as a key factor shaping interactions, demonstrating how stakeholders must navigate legal frameworks carefully to avoid unintended consequences. This appeared in a statement such as: "And then the risk is that you don't follow laws and regulations without even knowing about it. And it's not an escape." The diagnosis includes also regulation compliance, leading the cautious interaction process, and shaping how stakeholders navigate innovation. The discourse shows that strict adherence to legislation establishes a structured and risk-averse engagement, where compliance takes precedence over flexibility. For instance, the phrases: "We wear several hats...Our mission is to work according to the legislation but we have space, that is what is our challenge to find ways that still pull us forward and put that on that topic", and "I am unit manager and I have said before enabler, facilitator, pusher." shows that authorities stakeholders recognize the limitations imposed by regulations but simultaneously seek opportunities within legal boundaries. The discourse added that the diagnosis includes the 'limited room for action' that shapes the cautious interaction process, emphasizing the constraints faced by authorities stakeholders in facilitating change, which is illustrated by the statement: "Can only make change to a certain extent…and this is because the authorities have limited room for action here , we also see that politicians should be co-creators in this process". This statement shows that caution is needed when

making decisions or taking action, as inclusive collaboration is needed. The phrase "everyone must understand that the system is complex and difficult" further underscores the need for awareness from all stakeholders of the complexity that requires time and carefulness, which seems to reflect the cautious in the interaction process. Furthermore, the diagnosis of this frame also includes the influence of innovative novelty, which leads to uncertainty such as on responsibilities, and regulation indicating the knowledge gap. As a result, the responsibilities of the authorities to respond to the demands of food innovation have not yet been clearly distributed, which raises curiosity in interaction and can cause delays in decision-making. This situation is clearly expressed in the used language through a phrase such as: "Since it's quite new, we should contact…the responsibilities have not yet been clearly distributed. And we've noticed that on different scales." And "You may also not know which laws are to be applied as an official, and which documents you need to submit as an entrepreneur. And this is a challenge for everyone in the process, both the entrepreneurs and the authorities, because they are also navigating something that is unknown." Similarly, in another phrase: "You are not really prepared for what is coming and what you need to be able to respond to as an authority". Moreover, the discourse shows that the diagnosis also includes resource insufficiency as a key factor contributing to a cautious interaction process. The statement: "We are in a situation where we know that we are short of resources now within the entire state…and there is always a tendency to really only focus on the central part of one's mission…There is a matter of course in the times we live in...challenges, cuts in budgets, the geopolitical climate, with many other things, push the budgets down."

The discourse constructs suggested **action biases** that emerge as a response to the cautious interaction process. An action bias includes simplifying regulations. It positions authorities as key drivers of necessary shifts. A phrase highlighted this: "It won't happen by itself unless the authorities are involved." Another action bias suggests including a facilitative role as key to overcoming barriers to innovation while staying within legal frameworks, thus fostering a more flexible yet cautious regulatory environment. The statement, "What we can do ourselves within the authorities are these first parts that deal with regulatory simplification and develop a proactive way of working with the legislation," reflects an effort to streamline regulatory processes. Additionally, it suggests the significance of political involvement as a means to expand the room for action. It underscores the importance of working within a unified supportive system, fostering cross-sectoral collaboration. Moreover, the discourse suggests the inclusion of other stakeholders to foster a more comprehensive approach in the phrase, "we will be able to do that, but also need to collaborate with the sector and with other authorities, of course, with academia, with municipalities and the like. It needs to contain several different

areas.” This seems to expand the scope of collaboration beyond stakeholders. The discourse, therefore, calls for a more inclusive interaction process. Furthermore, action bias suggests upgrading the level of knowledge as a fundamental precondition for informed decision-making, particularly in response to the uncertainty surrounding the novelty of the innovation. It suggests a shift from reactive decision-making to “proactive preparedness,” fostering a move from fear, which seems to emerge from the risk of noncompliance, or uncertainty. Moreover, the action bias suggests applying a new approach that encourages practical testing of solutions in real-world settings. Participants see this initiative as a new way to develop the way of working with innovations in food and accelerate its implementation. This was seen by participants as a new approach to increase the understanding of the innovation challenges and possible solutions to mitigate possible risks. The action bias also suggests having government guidance in the early stage. They also highlighted the need for clear governance to help prioritize action, resources, and decisions in the implementation. They see these steps as facilitating, clarifying, speeding up, and preventing any negative consequences. Nevertheless, the discourse underscores the need for any regulatory adjustments to align with existing legislation to avoid legal consequences, ensuring that innovation can proceed while safeguarding compliance with legal standards.

3.1.3 Emotion Frame

The discourses revealed an emotion frame, which highlighted the strong emotions and reactions that are raised during the interaction process, influencing stakeholders’ engagement and perceptions. Emotion plays a crucial role in shaping responses to the challenges and opportunities within the food innovation process. The discourses show how emotions are embedded in the interactions, affecting decision-making, trust, and motivation among stakeholders. Some emotions were implicitly embedded, while others were explicitly embedded within the language. The first diagnosis includes frustration, which is explicitly and implicitly apparent in the language used. These emotions were expressed in correlation with the narratives about the difficulties faced by micro-enterprisers in navigating regulatory barriers. In association with frustration, other emotions appeared, such as exhaustion, suffocation, and scepticism. Some of these emotions seem to be manifested in a statement such as: “ Is it possible to do that for what we need? That's maybe a little more frustration or scepticism; it takes political will. I feel that there are willings…hopefully it will drop so fingers, but then policies suffocate, we as a company are so few we can't handle it”. Another diagnosis is hope, which emerges within the interaction process, shaping stakeholders’ expectations for the acceptance and implementation of novel food innovations. The metaphorical language used in the discourse, such as “we are trying to be rock stars, that’s the role we have,” reflects enthusiasm and a strong hope. In addition, the discourse

highlighted dialogue as a source of hope. Phrases such as "It is a great opportunity to enter into a dialogue". In addition, the used of"survivor" term describes those who persist despite systemic challenges. The language in use characterized micro-enterpruners as survivor of these challenges, comparing their experience to an extended time of acquiring and honing survival skills. This approach emphasizes the substantial burden that innovators face when dealing with bureaucratic hurdles, emphasizing the crucial need for increasing the role of authorities in promoting and fostering innovation. Another diagnosis includes emotion arising from the perceived disparity in how innovations are assessed. A statement reflecting and justiifiyng on that: "Some companies also feel that there are different interpretations of the rules and unequal assessment between companies, but it can be different levels of supervisors, different regions of the country, so you feel that we do this in a slightly uneven way," the language shows that this perception has led among micro-enterpreneurs to a sense of unfair treatment of innovations. The overall implicitly reconstructed feeling is that of the victim, conveyed through language, where all the emotions generated during the challenges of the implementation process are accumulated. Additionally, the discourse shows that the use of the metaphor of Don Quixote further highlights the emotional complexities surrounding innovation. The novel book of Don Quixote talks about a brave, noble Spanish soldier, skilled as a warrior but mistaken in his perceptions, such as confusing windmills with giants. His efforts, though noble, are often misunderstood by others. The novel explores themes like idealism vs. reality, the power of perception, and the tension between dreams and the real world, highlighting the pursuit of noble but sometimes misguided goals. The statement "it is going to be difficult for Don Quixote, who hopefully doesn't find windmills but can help build and develop Industry 2.0 out in the countryside, preferably out on Koster" appear to conveys a vision of transformation, where challenges (like windmills) must be addressed rather than merely battled against. The metaphor acknowledges the emotional toll of dealing with rigid bureaucratic administrative processes. Therefore, the discourses seem to present innovation not just as a technical endeavour but as an emotionally charged effort driven by emotions, positioning innovation as a process that requires both resilience and reimagining of systemic structures to enable sustainable change.

The discourse constructs action bias within the emotion frame as a necessary intervention to shape the interaction process, particularly in maintaining the optimism link with hope. The discourse suggests that certain strategic actions can counteract emotional tensions and foster a more constructive innovation environment. One key action is enhancing knowledge and trust through strategic dialogues among all stakeholders. By fostering open communication, misunderstandings about the role of authorities in the innovation process can be

addressed, reinforcing optimism and reducing skepticism. In addition, the discourse creates a suggested action bias by framing the dialogue in a way that maintains hope, positioning it as a proactive solution to address frustration, skepticism, and misconceptions surrounding innovation support. The discourse presents dialogue as a means of increasing knowledge about food innovation and its regulatory landscape while fostering emotional shifts that encourage collaboration. In the discourse, phrases such as: “It is a great opportunity to enter into a dialogue” and “Dialogue and cooperation provide a better understanding of how the authorities function, how to work on different issues, and who is responsible for what, which is a pretty good basis for increasing trust in the authorities” indicates that dialogue as an essential mechanism for transforming perceptions and reducing frustration. Moreover, the emphasis on stability and predictability reflects an emotional need for security in the interaction process. The discourse implies that uncertainty in the regulatory environment exacerbates frustration and discourages investment. Thus, minimizing risks is framed as an essential action to counteract emotional resistance and enable smoother collaboration. Ultimately, the discourse positions authorities as key stakeholders whose engagement in risk mitigation is not only a regulatory duty but an emotional assurance, fostering trust and incentivizing participation in the innovation ecosystem. “Risk and capital are very closely related; in order to get to investments in new technology and innovation, we need to remove risks, and there the authorities have an incredibly important role, almost more important than financial support, that we have legal certainty and support programs.” this introduces the expected idea that administrative system should actively remove risks rather than merely oversee compliance.

3.2 Tensions

The first finding revealed a tension between **speed and caution**, which arose from the interaction between the speed and cautious discursive frames. The paradoxical nature lies in time; it is depicted by distinguishing between speed and cautious. The tension emerged from the interrelatedness of the speed frame and the cautious frame: Speed frame highlighted the demand for changes and transformation of the current administration and bureaucratic systems, and regulations. On the other side, the cautious frame ensures long-term stability. The speed frame prioritised fast interaction, but can lead to mistakes, while caution prioritised quality and long-term stability but may slow down the interaction. Therefore, there is difficulty in choosing between these two demands. There are some mixed messages manifested through the discursive frame, for example statement such as “we need to move forward much faster than before”—speed discursive frame, while simultaneously emphasizing the importance of careful assessment and adherence to regulations, a statement such as “Our mission is to work according to the legislation”—cautious

discursive frame. This creates confusion about priorities—should speed take precedence, or should caution? Another type of interrelated tensions is the system contradictions: Systems designed for risk management and long-term stability might slow down the urgent need for innovation implementation and fast interaction. This manifested in statements such as “shifts are needed to create more long-term conditions” and “There are fewer now than there were a few years ago because it's such a slow system”. Both mixed messages and system contradictions reflect the control vs. flexibility paradox of organizing. The struggle to balance these contradictions often results in tensions, delays, perceived inefficiencies, and defensive responses.

The second finding revealed a tension between **fear and hope**, emerged within emotional dynamics that interact with the cautious and speed frames. This paradox is rooted in emotion, depicted by distinguishing between fear and hope. These coexisting emotions appear to drive a potential paradoxical tension. By juxtaposing these two emotions—hope and fear—it demonstrates the paradoxical tension between optimism for progress and the fear of mistake due to regulatory constraints. The type of paradoxical tension is likely correlated to the tension between control and flexibility. This tension categorized as an organizing paradox. Throughout the analysis, pleasant and unpleasant emotions coexisted, within the mixed messages, they appeared as a mixed emotional response. Some examples of the mixed messages of emotions were manifested within the emotion frame, such as the statement "we are trying to be rock stars, that's the role we have". In this, the term "rock stars" is used as a metaphor that reflects optimism and confidence in their efforts, which are essential components of hope. In addition, by saying, "We try to be", they seem to convey a sense of aspiration and ambition, suggesting they hope to achieve great success in innovation. However, they faced challenges with regulatory uncertainty and a rigid system. In contrast, within the discursive cautious frame, there are mixed messages that seem to be manifested in statements such as “ Can only make change to a certain extent, and this is because the authorities have limited room for action here.", which suggests a sense of defensive response because of the limitation on taking decision or action, this seem to influence the ability on speeding the interaction process.

The third finding revealed a tension between **bureaucracy and food innovation,** that emerged through the underlying assumptions and interpretations of speed discursive frame. The paradoxical nature lies in transformation, which is depicted by distinguishing between bureaucracy and innovation. The discursive speed frame constructs food innovation as necessary for food system transformation, which demands fast changes through rapid adaptation, flexibility, simplification, and fast responses. The emerging tension shows that innovation and bureaucracy are

necessary in the food transformation process. However, bureaucracy appeared to prioritise learning in controlling way to adopt the changes through formal rules and procedures that guide how changes can be adopted which seems to slow down the process of adopting innovations due to the bureaucratic system is more focused on maintaining order, ensuring compliance, and following established guidelines rather than being flexible or adaptive to change. Whereas, in innovation, prioritised fast learning as essential to progress. Innovation requires a willingness to break from established norms and embrace change, which can conflict with the more rigid, rule-bound nature of bureaucratic systems. The paradoxical tension between bureaucracy and food innovation seems to align with the old/new paradox of learning. The old/new paradox here refers to the challenge organizations face in simultaneously leveraging established systems (the old) while also seeking new, innovative opportunities (the new). Bureaucracy tends to prioritize exploitation of existing rules, processes, and structures (the old), often aiming to maintain stability, control, and efficiency. Innovation, on the other hand, typically emphasizes exploration of new ideas, technologies, and ways of doing things (the new), which can disrupt existing systems and require flexibility. The paradox of learning is a self-referential loop, and seems to be manifested through the speed discursive frame in cohesive statements such as: “companies and authorities together must look at how we raise the level of knowledge. We have to find ways to do that,...we cannot have the situation where we as entrepreneurs constantly have to educate...about what we are willing to help to do it together”, and “it feels very frustrating to get an official to tell you how it will be completed. We didn't know what she or he was talking about.” These implicitly illustrate the contradiction inherent in the self-referential loop, while the food innovation sector pushes the bureaucratic system to adapt quickly to support innovation by process of learning and understanding about food innovation, the bureaucracy system is limited to do faster it, creating a paradox in which food innovation sector cannot move forward.

4. Discussion

This chapter discusses the findings in relation to the research aim and questions. The discussion follows the four research questions, moving from the identification of frames, to the tensions they reveal, to how stakeholders perceive and respond to these tensions, and finally, to how these findings can influence collaboration, and communication process.

4.1 Research Question 1

How, with what discursive frames, do stakeholders construct the interaction process in the context of RFI implementation challenges?

The conducted discursive frame analysis revealed three frames: *speed* frame, *cautious* frame, and *emotion* frame. These frames are shaped by the actors' experiences within institutional environments, their social and intersubjective interactions, and the discursive contexts in which they operate. As van Hulst and Yanow (2016) suggest, sense-making is a situated process influenced by both individual histories and by direct or indirect intersubjective encounters. The *speed* frame reflects stakeholders' emphasis on the urgency of swift decision-making to accelerate innovation in the food system. This frame underscores the importance of rapid interaction and responsiveness as essential for achieving innovation and sustainability goals. Stakeholders who adopt this frame perceive current administrative interactions as slow, particularly under the time pressure associated with sustainability targets. Discourses highlight that bureaucracy, complex regulations, cultural mindsets, administrative control, and traditional communication act as key obstacles for timely interaction, contributing to collaboration dysfunction. The government is often criticized for both outdated regulations that take time to update and frequent policy changes (Kattel et al., 2019). In addition, Bradley et al., (2021), argue that the institutional environment influences public-private interactions, affecting innovation. However, Kanon (2023) challenges the view that bureaucracy and collaborative governance are opposing forces, arguing that they can coexist and even enhance one another. The author stresses the importance of formalization, hierarchy relationships, and designated roles for effective governance networks, particularly in addressing complex societal challenges that are typically too large or intricate for any single organization to manage. The author also introduces the concept of a "Networked Bureaucracy," suggesting that bureaucracy, when adapted to meet modern governance needs, can facilitate collaboration rather than hinder it (Kanon, 2023).

This perspective complicates the speed frame diagnosis by showing that bureaucracy can, under the right conditions, be a facilitator rather than a barrier. In addition, Kattel et al. (2019) argue that innovation bureaucracy is needed to make innovation true, Innovation bureaucracies evolve through a blend of dynamic, change-oriented networks (charismatic networks) with stable, expertise-driven organizations (expert organizations). This dynamic, termed 'agile stability,' enables bureaucracies to succeed in the long term. As the literature supports networking for collaboration, the frame also suggests collaboration as an action bias and adds the importance of leadership. Berger (1997), cited in Huxham and Vangen (2000), argued that formal leaders have an important role in collaborations, as their active involvement influences collaboration outcomes—especially in complex social issues requiring change. The frame suggests action biases: active formal leadership involvement (public authorities and politicians) can provide the necessary guidance, facilitation, and flexibility—through collaboration and dialogue, in navigating regulatory frameworks and in managing bureaucratic and administrative systems—to support innovation implementation. The speed frame also promotes pressure for transformation as an action bias to raise awareness and accelerate change. Moreover, the frame suggests that changes in traditional communication are important for improving the interaction. This aligns with Long (2004), who noted that traditional educational and training practices that reinforce traditional roles may deauthorize the new way of thinking and the new approaches.

The *cautious* frame revealed the interaction exercised by stakeholders, uncovered the careful responses to inquiries about regulations and RFI implementation, influenced by regulatory compliance, limited room to act, resource insufficiency, and the uncertainty surrounding regulations and the novelty of food innovation, portraying the interaction process as vulnerable and deliberate. Collaboration and interaction around food innovations are particularly challenging since they are novel and surrounded by uncertainties, especially if the innovations are radical. Innovation is inherently complex and disorderly, involving the careful navigation of uncertainty (Kline & Rosenberg, 2010; cited in Reynolds et al., 2023). Uncertainty in the innovation process arises from the unpredictability of future events, making it challenging to plan for the unknown (Jalonen, 2011; cited in Algotsson & Öhlander, 2020). Jalonen (2011) identified 18 types of uncertainties impacting the innovation process (cited in Algotsson & Öhlander, 2020). Regulatory, resource, technological, market, political and time uncertainties are some of them and were also reflected in the discourses. This confirms that navigating innovation requires deliberate, reflective action under uncertainty. However, uncertainty can periodically slow down or halt the innovation process (Jalonen, 2011; cited in Algotsson & Öhlander, 2020). This frame suggests action biases such as upgrading the level of knowledge to address uncertainties

surrounding the novelty of food innovation. Oñederra-Aramendi et al. (2023) found that there is knowledge fragmentation on food governance that needs to be addressed to strengthen the governance of alternative food systems, AFS. They also cited Adelle (2019) study which emphasizes the important of democratizing knowledge. This highlights the importance of recognizing diverse forms of knowledge, such as daily practices, lived experiences, and artistic expressions, to address complex challenges like food insecurity (Santos, 2006; cited in Oñederra-Aramendi et al.,2023). To upgrade the level of knowledge, the frame suggests applying a multi-agency collaboration model. Yet, collaboration is still perceived as dysfunctional. This aligns with Waring et al.'s (2020), who noted that while multi-agency collaboration pools diverse expertise to address complex problems, it also faces challenges, such as the high cost and infrequency of joint training, as well as the efforts needed to build shared understanding and coordination among actors. These factors can hinder collaboration and communication. Another suggested action bias involves shifting from discussing to practical experimentation to mitigate uncertainties. Jurgilevich et al. (2016) stated that experiments promote institutional, social, and technological learning, exploring new ideas for challenging the norms and designing better policies.

The *emotion* frame reveals the emotional undertones in discourses, revealing feelings like frustration, hope, fear, suffocation, and victimization. These emotions correlate with the narratives describing the difficulties faced in navigating barriers and opportunities. This frame uncovers the embedded emotions within interactions that appear to influence stakeholders' decision-making, trust, and motivation. van Wijk et al. (2018) highlight the importance of interactive spaces at the meso-level for collaboration, co-creation, and innovation adaptation within broader institutional contexts. They emphasize the need for future research exploring relational dynamics and the emotional dimensions within these spaces. Emotions influence how people perceive change, especially when change frames are inconsistent or lack of a clear vision, this affects their willingness to embrace and implement change (Zimmermann & Kenter, 2023). The discourses reveal both negative and positive emotions. Fredrickson's (2001), cited in Baden (2020, p.89), noted that positive emotions like optimism increase mental flexibility and openness to new ideas. To counter negative emotions and enable constructive interaction and smoother collaboration, this frame suggests promoting dialogue to enhance knowledge and build trust. Trust is viewed as a key source of hope, highlighting the role of authorities in fostering trust and minimizing risks. Innes and Booher (2003), argued that collaborative governance allows actors to learn from each another and develop solutions that build reciprocity and relationships. In addition, Long (2004) also emphasized the role of facilitation in managing emotions to support collaboration and learning.

The next section explores the tensions arising from these discursive frames. It addresses the following research questions: Q2: Which tensions emerge from the discursive frames? and How can these tensions be theorized? Q3: How do the stakeholders perceive, respond to and cope with the tensions? Q4: How do these tensions influence the interaction process, and in turn, shape collaboration and communication?

4.2 Research Question 2:

Which tensions emerge from the discursive frames?

The analysis of discursive frames reveals patterns that suggest potential tensions. While these tensions were not explicitly articulated by the participants, they implicitly appeared after the frame analysis through the interaction between the discursive frames and their underlying assumptions. These tensions recognized inductively. These tensions included speed/caution (perspectives), fear/hope (emotions), and bureaucracy/innovation (institutional logics). These contradictory elements do not cancel each other out; instead, they coexist. They exhibited characteristics typical of paradoxical tensions. The uncovered types of interrelated paradoxical tensions are self-referential loops, mixed messages, and system contradictions. Moreover, these tensions reflect two core paradox categories: organizing (control vs. flexibility) and learning (old vs. new).

4.3 Research Question 3:

How do the stakeholders perceive, respond to, and cope with the tensions?

Based on Lewis's (2000) paradox exploration strategy, this question will be addressed by mapping how stakeholders implicitly defend contradictory frames and manage tensions. Although stakeholders may not be fully aware that they are defending the contradictory elements or managing the tensions, paradox theory helps reveal both. The following explanation is structured around the two identified paradoxes' categories: organizing and learning. The organizing paradox includes speed/cautious and fear/hope, and the learning paradox includes bureaucracy/innovation.

4.3.1 Organizing paradoxes category: Speed/Cautious and Fear/Hope

Speed/Cautious- Time

The initial defensive response appears to be suppression. This reaction emerges within the speed frame due to the demand for fast interaction in innovation implementation, which is likely driven by perceived threats from climate change and the risk of losing invested capital. It involves romanticizing speed, where it becomes a symbol of progress and efficiency—an ultimate solution. Such glorification may suppress the cautious discursive frame, overshadowing the need for critical reflection and careful evaluation. Lewis (2000, p. 768), explained that reaction formation occurs when actors, overemphasize one side of a tension, which intensifies pressure from the opposing side. Stakeholder discourses reveal an overemphasis on the speed frame (flexibility) as the top priority. This exaggerated focus can cause unintended consequences like errors or safety risks, thus reinforcing the need for the caution frame (control). Innes and Booher (2003) noted that rapid change fosters innovation in the system but also introduces risk (Innes & Booher, 2003). The more the speed frame is pushed, the greater the counter-pressure for caution becomes, making it increasingly difficult to balance the two. This cycle of suppression and reaction may persist unless social reflection emerges—through a both/and approach that acknowledges the value of both speed and caution. These defense responses illustrate a vicious cycle that could ultimately delay necessary changes.

The speed/cautious tension appears to be reframed as manageable through improving communication and collaboration. For example, in this statement: “By the authority starting to cooperate more closely in the matter, it has many bases and many benefits”. It suggests that stakeholders start working together. This closer cooperation reflects the superordinate goal strategy, indicating a planned approach to managing the tension. Consequently, administrators are no longer viewed only as barriers to innovation but as partners who help accelerate processes in a controlled, sustainable manner. This shift requires an additional strategy suggested by the theory: behavioural complexity. The statement implies that authorities' involvement doesn't slow things down but can be seen as enhancing the process. The closer cooperation helps to align goals, facilitating both speed (through improved collaboration) and caution (through regulatory support and oversight). The reframing also suggests that caution can support innovation, but it requires a willingness to innovate internally within the authorities. This seems to have appeared in this statement: “We are in a situation where we know that we are short of resources now within the entire state administration…and there is always a

tendency to really only focus on the central part of one's mission…and we continue to work on the attitude changes, the attitude of thinking more, so to speak, of possibility than limitation, must increase on the part of the authorities…we have discussed cultural changes …there is a matter of course in the times we live in, and we need to get a culture ourselves, I think, which is characterised by the ability to change work at the authorities and also a willingness to innovate in our own working methods." This reframes the speed/caution tension by shifting the focus to internal cultural change within authorities, which required a behavioural complexity management strategy. Rather than viewing the tension as external, it emphasizes the importance of transforming the mindset within the administrative system culture so that they can handle both speed and cautious effectively within their own working methods. Thus, the uncovered coping strategies are reframing, behavioural complexity and superordinate goal.

Fear/hope- Emotion

A reaction formation emerges, where hope and optimism are amplified to drive innovation. This is particularly evident when hope, within the emotion frame lies in dialogue, cooperation, and collaboration, suggesting empowerment. Hope can positively influence engagement, such as climate engagement, but its effect depends on its focus (Geiger, Dwyer and Swim, 2023). Ultimately, this tension between hope and fear shapes how stakeholders communicate and collaborate in food innovation, creating a paradox that influences both decision-making and outcomes. Meanwhile, this cycle may persist until stakeholders reflect on the interdependence between fear and hope.

The uncovered reframing strategy suggests that the tension is an interdependent and necessary for innovation success. Such as in this statement: "I think everyone understands that this is new, complex and difficult, but we need to help each other, one feels authorities are not proactive enough...but It's like you don't have a view around the corner, we need to move away from this administration, perhaps a little afraid of making mistakes, and rather trapped and free to sort of think development, but that really authorities need to think about development." This reframing suggests that fear and hope must coexist. Fear promotes caution to prevent mistakes, while hope drives action. Fear doesn't stop progress—it enhances it by encouraging careful and responsible development. Hope, in turn, drives the momentum forward, despite uncertainty. The discourse reframes fear not as paralysis but as a driver for future-oriented thinking. Hope motivates them to embrace change, adapt to new circumstances, and think beyond current limitations. This reframing shifts the conversation from viewing fear and hope as opposites to seeing them as complementary forces—fear encourages cautious and

responsibility, while hope encourages forward action. The uncovered coping strategy is reframing.

4.3.2 Learning paradox category: Bureaucracy/ Innovation

Bureaucracy/ Innovation- Transformation

Food innovation appeared to respond defensively by projecting frustration onto the bureaucracy, perceiving its slow, rigid processes as barriers. Meanwhile, bureaucracy projected its limitations onto regulatory and food innovation uncertainty to justify delays and inconsistencies. This cycle appeared to reinforce mutual dependence while preventing meaningful change.

Within this tension, the uncovered reframing strategy suggests that bureaucracy and innovation are not oppositional but potentially collaborative. Innovation operates within bureaucracy while advocating for regulatory adjustments when needed. For example, in this statement: "group of experts is working to find possible ways within existing regulations". This ability to navigate bureaucracy suggests that bureaucracy can coexist with innovation. The reframing presents them as interdependent not contradictory. The dual focus on the company's perspective (innovation) and the system perspective (bureaucracy) is a key feature of this reframing. The recognition that some issues may need to be raised at a higher level of governance shows that innovation operates within bureaucracy to find balance and expand possibilities.

Tension between bureaucracy and innovation also reflects limitations on learning, especially in systems rooted in control and rigidity. However, this tension appears to be reframed through the lens of collaborative learning. The uncovered reframing suggests that while bureaucratic structures may have limitations when it comes to learning, there is an opportunity for innovation through collaborative learning. For example, authorities' approach is to shift from working in silos to engaging in closer dialogue with companies makes learning more dynamic and interactive. The focus shifts from top-down control to co-learning with innovators to shape practical and adaptive solutions. The emphasis on "learning to work together" signals a shift from a control-based learning model to one that is more open and collaborative. This reflects a reframing of the tension, where stakeholders begin to value co-creation and joint problem solving. For example the statement: "from an unclear vision and unclear priorities to clearer action plans" suggests that while bureaucracy may limit learning, efforts are now being made to clarify goals and create shared learning paths. Another uncovered reframing presents bureaucracy as an innovation partner, in which bureaucracy can both structure and enable innovation when paired with

powerful leadership. Authorities seem to recognize that limited involvement slowed progress and may reframe their role toward proactive collaboration and early engagement. This reflects a learning process where bureaucracy is seen as capable of adapting quickly to innovations. In addition, strong leadership can inspire a cultural shift within organizations. This reframes the narrative from “bureaucracy vs. innovation" to "bureaucracy as a learning and enabling process”, where structured governance supports innovation by fostering knowledge exchange, experimentation, adaptation, and encouraging cultural and mindset shifts—critical for innovation. The uncovered coping strategies included reframing, experimentation, open communication, and paradoxical leadership

4.4 Research Question 4:

How do these different frames and emerging tensions influence the interaction process, and in turn, shape collaboration and communication?

Together, the frames illustrate the varied perspectives and underlying dynamics that shape stakeholders' understanding. Frames reveal misunderstandings, value differences, and varying expectations of the interaction process, which in turn can reveal the understanding of the collaboration and communication. Frames can also create a practical impact (Dewulf et al., 2009). The analysis shows that the influential factors include institutional structures, bureaucratic rigidity, absence of adequate shared dialogue spaces, knowledge gaps, and the lack of facilitative leadership—all of which can hinder collaboration and communication in the innovation process, but they are not the only reasons of perceived dysfunction in collaboration. Gray (2004) highlighted that collaboration failure is not solely due to procedural or organizational factors, but can also be explained by the different frames adopted by the parties regarding the issues at hand, the nature of the interaction, and their self-images and those of others. In addition, the discursive frames do not seem to operate in isolation; rather, they intersect and interact in complex ways. For example, the speed frame, which calls for urgency, conflicts with the caution frame, which calls for deliberation and ensuring regulatory compliance. The emotion frame also humanizes interaction and reveals the psychological stress of reconciling conflicting orientations. This interplay between frames, assumptions and interpretations seems to produce underlying tensions. Zimmermann et al., (2022) noted that actors may interpret a situation using conflicting frames, and can share frames while holding divergent views. Moreover, as the diversity of demands, claims, and perspectives from both internal and external stakeholders increases, a condition known as plurality, the likelihood of uncertainties and inconsistencies also grows (Meixell & Luoma, 2015, cited in Fayezi et al., 2022). Zimmermann & Kenter (2023) argue that openness requires

that planned change be initially broad and vague to allow input across local, social, economic, and ecological contexts. However, this creates a fundamental tension: while openness enables inclusion, it also permits multiple, contrasting framings of the change to persist among stakeholders (Zimmermann & Kenter, 2023).

Emerging paradoxes: speed/caution, fear/hope, and bureaucracy/innovation, create friction that influences interaction and innovation implementation. For example, the speed and cautious tension appear to shape stakeholder discussions, often resulting in fragmented dialogue. This hinders shared understanding of priorities and leads to inertia. The bureaucracy/innovation paradox also shows how rigid institutional structures can hinder timely decisions. Institutional inflexibility not only delays progress but can also affect trust among stakeholders. Fortuin et al. (2014, cited in Nandonde 2018) explain that trust is crucial for communication flow between partners and across the value chain, as it builds on the expectation that all actors will contribute to mutual benefits. Empirical findings indicate that interactions with traditional institutions often trigger emotional reactions and shifting expectations, which can weaken the trust needed for effective collaboration. According to Innes and Booher (2003, p. 58), trust plays a critical role in overcoming the rigid nature of bureaucracy, allowing stakeholders to better understand and respond to each other's perspectives and needs. Dewulf et al. (2009) also argue that tension between frames such as how stakeholders define problems or perceive processes can foster mistrust in negotiation contexts where mutual understanding is critical. Similarly, fear and hope emotional tension seem to affect stakeholder motivation, shaping engagement in innovation discussions. Such tensions affect behavior and decision-making (Forgas & George, 2001; Maitlis & Ozcelik, 2004; cited in Smith & Lewis, 2011). Morriss et al. (2022) further suggest that such emotions trigger a wider spectrum of emotional responses. This complicates interactions and collaboration dynamics. Therefore, while different frames help identify perceived challenges in collaboration and communication, tensions between them can lead to breakdowns in mutual understanding and coordination. Zimmermann and Kenter, (2023) highlight the value of interactive spaces, such as multi-stakeholder workshops, to mitigate tensions emerging from participative development. These spaces are seen as facilitating communication, enabling knowledge exchange, and fostering a sense of community among participants, ultimately supporting more resilient collaboration processes.

5. Conclusion

This thesis aimed to understand what makes the collaboration and communication between radical food innovation projects provided by micro entrepreneurial businesses, and the institutional innovation support in the Swedish food sector seem to experience perceived dysfunction. The thesis focuses mainly on meso-level interaction that takes place during the implementation stage, specifically between micro-entrepreneurs and public authorities. A discursive frame analysis revealed three different interaction process frames: speed frame, cautious frame, and emotion frame. Frame analysis revealed some potential influential factors on collaboration and communication practices. These include formal elements such as regulations, bureaucratic structures, administrative rules, and informal elements, including organizational culture, communication patterns, trust and emotional undercurrents in stakeholders' interaction within the institutional environment, as well as the broader traditional administrative and bureaucratic systems. Additional factors include knowledge gaps linked to uncertainties surrounding each of these; the novelty of the innovation, the regulatory framework, resource sufficiency, technological risk, market, responsibilities, political and time. The frames also suggest several actions based on stakeholders' diagnoses, such as strategic horizontal multi-agency collaboration, increasing dialogue opportunities, promoting facilitative and authoritative leadership, ensuring early-stage government guidance, and implementing practical testing solutions. Together, these frames reflect the diverse perspectives and underlying dynamics shaping stakeholders' understanding of the interaction process, which in turn influence collaboration, communication. Ultimately, acknowledging and negotiating these frames may help improve collaboration and communication. Dominant frames may suppress alternative frames (like equity, rights, culture), and can fail to ask: 1-Are solutions socially just or only market-efficient? 2-Are public interests, especially from rural, indigenous, or low-income communities, being integrated?

The analysis reveals that tensions between the frames and their underlying assumptions are another factor influencing collaboration and communication practices. The frame analysis revealed the following tensions: speed/caution, fear/hope, and bureaucracy/innovation. The paradoxical nature of these tensions depends on time, emotions, and institutional logics shaping transformation. These tensions seem to influence the collaboration and, in turn, the progress of the innovation by causing fragmentation in dialogues, slow decision-making, and mistrust. The application of paradox theory helps in exploring these tensions and in uncovering a number of strategies for managing them. An explicit strategy appeared within the analysis which is a multi-agency collaboration model, this suggests that

stakeholders are establishing practical actions through the initiative collaboration model. However, collaboration and communication are still perceived as dysfunctional. This can be due to the influential factors highlighted earlier, which appeared to challenge the collaboration progress. Implicit coping strategies were uncovered through the analysis and suggested by paradox theory; reframing and dynamic equilibration appeared to be central for managing the identified paradoxical tensions. They likely operated alongside future-oriented complementary strategies, such as superordinate goals, behavioural complexity, open communication, continued dialogue and paradoxical leadership. Illuminating these strategies can make them more explicit and actionable. Future research could provide insights into the effectiveness of these strategies in real-world scenarios in the context of radical food innovation. The goal of this study is not to simplify organizational life into binary oppositions (such as "slow" vs "fast") but rather to recognize the complexities associated with diversity and change in cognitive, emotional, and social processes within food sustainability projects such as radical food innovations.

The application of frame theory and paradox theory is not commonly done in radical food innovation research. The analytical perspective in this study is discursive frame analysis, and it is based on a small-scale data set. Given that previous studies on paradoxes examine paradoxes through case studies, anthropological inquiry, and literature reviews, a promising direction might be to investigate how discursive frames shift and how paradoxes in food innovation unfold across different temporal and spatial contexts. An important theoretical implication of this study is the suggestion that paradox theory could be expanded to more explicitly incorporate the emotional dimensions of paradoxes. By considering emotions alongside structural tensions, the theory may offer a deeper understanding of how these factors interact and influence the outcomes of interaction and innovation processes. This would provide a more nuanced understanding of the dynamics at play during the implementation of radical food innovations.

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Popular science

On and Beyond the Plate: There Is Ongoing Communication

Around the world, food is becoming more expensive, and in many regions, it no longer meets growing demand. Climate change and ongoing wars are placing even more pressure on already fragile food systems. All of this calls for urgent and wise action. Innovation is often seen as a key and hopeful way to address these complex global challenges. Sweden is widely recognized as a leader in innovation. However, transforming a system as complex as the food system requires more than just innovation—it demands collaboration at local, regional, and national levels. Although many efforts are underway to promote collaboration, key stakeholders still perceive these efforts as insufficient when it comes to implementing radical food innovations. Despite continued initiatives, many innovative food companies still struggle. In 2025, some even announced bankruptcy on social media, saying: "It's never fun when you realize that the path you've taken won't work out as you intended." To understand what makes collaboration and communication seem to malfunction, this thesis analysed a set of materials, including interviews with micro-entrepreneurs, a YouTube video featuring a conversation between public authorities and micro-entrepreneurs, and a podcast involving a consulting firm and a micro-entrepreneur. The study used frame analysis to identify patterns in how people think and speak about the interaction process. It also drew on paradox theory to explain some of the tensions that appear between different perspectives and how they are navigated. The analysis revealed several influential factors. Traditional bureaucratic systems require greater flexibility. The institutional environment—especially the regulatory framework—must evolve to better support innovation. Additionally, the way people talk about the process—the discursive environment—can shape how collaboration and communication unfold. The different discursive frames not only help explain the problem but also uncover underlying tensions that require strategic management. This thesis offers valuable insights for future research on collaboration to focus more on discursive frames within inter-organizational settings tasked with complex missions, such as transforming the food system.

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