

Stimulating Socially-oriented Markets and Systemic Impact: The Role of Brokering Organizations

Atefeh Ramezankhani

Desautels Faculty of Management

McGill University, Montreal

A thesis submitted to McGill University
in partial fulfilment of the requirements of the degree of
DOCTOR OF PHILOSOPHY

August 2019

©Copyright Atefeh Ramezankhani 2019, All rights reserved.

Abstract

Societal-scale solutions to complex problems need to transform existing social and economic structures in which actors from the public, civil society, and private sectors interact. Some organizational actors play a brokering role by influencing others' interactions and bridging gaps across networks of action in this process. They nurture new socioeconomic arrangements aimed at transformative, economically viable outcomes. While the catalysis and social integration roles of brokering actors contribute to communal benefits, the processes by which these organizations create broader impact beyond their focal network is not fully understood. Also, while new market arrangements are increasingly used for social impact, little is known about the macro dynamics of market creation for social change in the presence of high interdependency among stakeholders on the supply and demand sides. This dissertation investigates the prominent role of brokering actors in stimulating systemic impact as well as the dynamics of initiation and development of new market arrangements with a social-benefit purpose. The first research question asks: How do strategic bridging organizations transform existing socioeconomic arrangements for systemic social impact? To address this question, an in-depth case study of the largest food security organization in Canada and its market model is conducted. Using a longitudinal processual approach and inductive analysis of archival, interview, and observational data, the study examines the evolution of brokerage mechanisms over time and across different sectors. The second question asks: How can socially-oriented markets emerge in the presence of interdependent communities of actors? To investigate this question, a mathematical model is built that incorporates coupled market dynamics, including creation of joint market utility and interdependencies within and across the supply and demand sides, to address food security. Through analytical and simulation analysis of the tipping behavior in the model, the findings discuss the evolutionary dynamics involved in market creation and the synergies between policies across the two sides in the early stages of market creation. From the qualitative study, an emergent grounded model illustrates how the brokerage organization adopted three sets of activities in the public, market, and community realms as it introduced a new form of organizing in the market and social domains. A novel form of bridging called *decentralized brokerage* is proposed: a series of simultaneous brokering activities across and within the public, social, and market domains can collectively contribute to transforming the existing system. The findings contribute to our understanding of brokerage and market creation for social impact in three ways. First, decentralized brokerage advances the brokering concept by formulating it as designing alternative forms of organizing across market and social actors. This concept extends the current understanding of brokering for macro-level impact. It suggests that organizational actors with a brokering orientation can facilitate involvement of new actors in markets and encourage replication of brokering behaviors by these new actors that ultimately generate a cascading effect beyond their own circle of influence. Second, the findings on market emergence provide a dynamic and holistic account of market creation in the early stages of transformation when supply and demand are unbalanced. Third, the findings contribute to the transformative policy literature by providing a co-evolutionary perspective on how public and community actors can engage in transformative change. This study provides insights for stimulating innovative pathways for malfunctioning aspects of contemporary food systems. From a policy standpoint,

brokering organizations can facilitate socially-oriented market dynamics and joint efforts by state and community actors to elaborate new possibilities in policy development for societal problems through progressively building brokering capacity across the system.

Keywords: *socially-oriented markets, transformational bridging, brokerage organizations, market-based solutions, transformative policy*

Résumé

Les solutions à l'échelle de la société pouvant être apportées aux problèmes complexes se doivent de transformer les structures économiques et sociales existantes dans lesquelles interagissent les acteurs du secteur public et de la société civile ainsi que ceux du secteur privé. Certains organismes acteurs jouent un rôle d'intermédiaire en influençant les interactions des autres acteurs, tout en comblant des lacunes dans l'ensemble des réseaux d'action. Ils soutiennent de nouvelles ententes socioéconomiques visant à produire des résultats transformateurs et viables sur le plan économique. Alors que les rôles de catalyseurs et d'intégrateurs sociaux que jouent les intervenants agissant à titre de courtiers contribuent aux bénéfices communs, les processus par lesquels ces organismes ont une incidence au-delà du réseau qu'ils visent ne sont pas entièrement compris. De plus, alors que les nouvelles ententes relatives au marché sont de plus en plus utilisées dans le but d'obtenir des répercussions sociales, nous en savons peu sur les dynamiques macroéconomiques de la création de marchés afin de produire un changement social dans un contexte de grande interdépendance entre les intervenants du côté de l'offre et ceux du côté de la demande. La présente thèse examine l'important rôle que jouent les intervenants agissant à titre de courtiers pour favoriser une incidence systémique ainsi que les dynamiques liées à la création et à l'élaboration de nouvelles ententes relatives au marché destinées à produire un avantage pour la société.

La première question de recherche est la suivante : comment les organismes qui font le pont à des fins stratégiques transforment-ils les ententes socioéconomiques existantes pour qu'elles aient une incidence sociale systémique? Pour répondre à cette question, nous avons effectué une étude de cas approfondie sur le plus important organisme en sécurité alimentaire au Canada et son modèle de marché. Au moyen d'une approche processuelle longitudinale de même que d'une analyse inductive de données d'observation et de données tirées d'archives et d'entrevues, la présente étude examine l'évolution des mécanismes de courtage au fil du temps et dans différents secteurs. La seconde question est la suivante : comment les marchés à vocation sociale peuvent-ils émerger en présence de communautés d'intervenants interdépendantes? Afin d'examiner cette question, nous avons construit un modèle mathématique qui inclut la dynamique de marché couplée, notamment la création de l'utilité commune du marché et les interdépendances du côté de l'offre et de la demande ainsi qu'entre elles, pour aborder la question de la sécurité alimentaire. Au moyen d'une analyse et d'une simulation du comportement au point de bascule du modèle, nos constatations portent sur la dynamique évolutive associée à la création du marché, ainsi que les synergies qui existent entre les politiques des deux côtés (offre et demande) dans les premiers stades de la création du marché. Par suite de l'étude qualitative, un modèle émergent ancré dans des données empiriques permet d'illustrer comment l'organisme de courtage a eu recours à trois ensembles d'activités dans les milieux que sont le secteur public, le marché et la communauté, alors qu'il a intégré une nouvelle forme d'organisation dans le domaine de marché et le domaine social. Une nouvelle forme de transition désignée par le terme courtage décentralisé est proposée : une série d'activités de courtage simultanées au sein du domaine public, du domaine social et du domaine de marché,

et entre eux, peuvent, lorsque réunies, contribuer à la transformation du système en place. Les résultats contribuent à notre compréhension du courtage et de la création de marchés de trois façons. Premièrement, le courtage décentralisé fait progresser le concept de courtage en le formulant comme la création d'autres formes d'organisation au sein du marché et entre les acteurs sociaux. Ce concept améliore la compréhension actuelle du courtage fait dans le but d'obtenir des répercussions à l'échelle macroéconomique. Il sous-entend que les organismes acteurs axés sur le courtage peuvent faciliter la participation de nouveaux acteurs dans les marchés et les inciter à reproduire ces comportements de courtage, de sorte qu'ils finissent par produire un effet en cascade au-delà de leur propre cercle d'influence. Deuxièmement, les résultats portant sur l'émergence du marché fournissent une description dynamique et holistique de la création du marché durant les premiers stades de la transformation, lorsque l'offre et la demande sont déséquilibrées. Troisièmement, les résultats enrichissent la littérature sur les politiques transformatrices en fournissant une perspective coévolutive sur la façon dont les acteurs des secteurs public et communautaire peuvent s'engager dans un changement transformateur. La présente étude fournit des pistes en vue de favoriser des voies novatrices pour aborder les aspects qui ne fonctionnent pas correctement au sein des systèmes alimentaires contemporains. Du point de vue de l'élaboration des politiques, les organismes de courtage peuvent faciliter la dynamique des marchés à vocation sociale ainsi que les efforts des acteurs de l'État et du secteur communautaire en vue d'ouvrir de nouvelles perspectives pour l'élaboration de politiques destinées à résoudre des problèmes sociétaux en faisant progressivement croître la capacité de courtage dans l'ensemble du système.

Mots-clés: *marchés à vocation sociale, transition transformationnelle, organismes de courtage, solutions axées sur le marché, courtage décentralisé, politique transformatrice*

To my heroes

Maryam, Hamid, Alireza, & Mostafa

Acknowledgements

Acknowledging all the support that I have received requires a deep reflection on a journey of six years. In harmony with the process approach at the core of this thesis, I would like to emphasize that completing a PhD is a true journey of academic and personal development through reading, writing, reflecting, and socializing into the world of learning. I have certainly learned far more than I could ever fit into a couple of hundred pages and I'm deeply grateful for all the mentors, colleagues, friends, and family who supported me through this process.

First and foremost, I am extremely thankful to my co-supervisors, Professors Laurette Dube and Paola Perez-Aleman. Their constant guidance and dedication to produce high-quality work fundamentally impacted my research and how I navigated the process. Numerous discussions, insightful feedback, and hours of meetings provided me with a valuable opportunity to sharpen my thinking and arguments to make an original contribution. Laurette was excellent at encouraging me to think about the big picture of my work and embrace my interest in engaging with real-world problems through research. Working with her and the McGill Centre for Convergence of Health and Economics was an invaluable experience, as I got the chance to connect with and learn from many academic, private, and public sector partners during numerous workshops, partnerships, and grant-writing processes. Thank you, Laurette, for expanding my outlook on meaningful and relevant research. Working with Paola taught me the importance of rigour and diligence in the research and writing process. Paola's detailed comments and critical perspective cultivated much thinking and were pivotal in advancing this project. Thank you, Paola, for pushing me to raise the bar and challenge myself to exceed my limits.

I would also like to express my gratitude to Professor Jeroen Struben, whom I had the pleasure to have as co-supervisor during the first three years of my PhD program. I learned much from Jeroen's remarkable analytical and modeling acumen. He was a great mentor to me (even after he left McGill) for incorporating a mathematical modeling approach into this thesis. I am also grateful to Professor Anna Kim, my committee member, who frequently brought many thought-provoking perspectives into my research. Being at the Desautels Faculty of Management and in the joint program offered me the chance to access many renowned scholars. I appreciate all the faculty who have provided feedback and support over the past six years.

I would also like to thank the Desautels family without whom this experience would not have been the same. Thanks are due to my student-colleagues in the PhD program for their intellectual and emotional support and for all the coffees we shared. I am particularly thankful to administrative staff whose endeavours do not receive the acknowledgement they deserve. Particularly, thanks to Stella Scalia who always went the extra mile by providing full-fledged administrative and emotional support on innumerable occasions. Thanks to Santa Rodrigues for being a source of hope and encouragement on the 5th floor of the Bronfman Building.

This research would have not been possible without the substantial contributions of many individuals and organizations. I would like to acknowledge FoodShare Toronto's leadership, staff, volunteers, and all the other interview participants who took time to share their experiences and

perspectives during extensive interviews, Skype calls, and coffee talks. I would like to extend my sincere appreciation to Debbie Field, Ulla Knowles, and Paul Taylor who generously assisted me in accessing individuals, organizations, and resources that all greatly enriched my data collection. Thanks to all the community organizations that welcomed me in their initiatives, projects, and meetings. They kindly enabled me to engage with the people on the ground and collect invaluable insights in my field of study. I have the deepest respect for their passion and commitment to making peoples' lives better.

Also, my research benefited from generous funding from multiple sources. Thanks to: Fond Québécois de la Recherche sur la Société et la Culture (FQRSC) doctoral research scholarship, Rathlyn Foundation PhD fellowship, National Bank of Canada PhD fellowship, Centre for Strategy Studies in Organizations (CSSO) PhD Dissertation Award, and McGill University Graduate Studies Travel Grant. I would also like to thank the McGill Centre for Convergence of Health and Economics (MCCHE) for substantial support of my field research through the SSHRC's "Food Locally Embedded, Globally Engaged" (FLEdGE) Award (Ref. 895-2015-1016) and the FQRSC Team Grant Award (Ref. 2015-SE-179342). The final version of the thesis was proofread for language corrections by an editor.

Last but not least, I should thank my source of inspiration and hope, my beloved family. I am deeply indebted to my parents, Maryam and Hamid. They made huge sacrifices by choosing my happiness over theirs. Mom and Dad, thank you for giving up your dream of having your daughter around all these years. Thank you for all six years of undergraduate and master's studies when I was 700 km away. Thank you for the past six years, for the constant encouragement from 9,000 km away. Your unconditional love is the true blessing in my life. And thanks to my brother, my dearest friend. Thank you Alireza for all our virtual get-togethers and coffee chats over Skype. Your infinite attempts to bring joy back to my days whenever I was down will remain the sweetest memory of my dissertation writing months. And, finally, I cannot even begin to express my gratitude to Mostafa, my support hero in life, without whom this journey would have been impossible. I am glad that we went through our PhD journeys together on a new continent and built our first home here. Mostafa, your unwavering patience and your relentless support in every step of the way made this process enjoyable. Your profound belief in my abilities is my source of inspiration, and I am so blessed to have you in my life. In this journey, we surpassed our limits together and we will continue to do so.

Disclaimer

The content of this thesis does not reflect the official opinion of FoodShare Toronto. Responsibility for the information and views expressed in the thesis rests entirely with the author.

Contents

Abstract	<i>i</i>
Résumé	<i>iii</i>
Acknowledgements	<i>vi</i>
List of Figures	<i>xi</i>
List of Tables	<i>xii</i>
Chapter 1 Introduction	1
1.1 Background and Motivation	1
1.2 Research Questions and Approach	8
1.2.1 First research question: brokerage and systemic impact	8
1.2.2 Second research question: emergence of socially-oriented markets	12
1.3 Thesis Outline	15
Chapter 2 Literature Review	17
2.1 Chapter Summary	17
2.2 Markets and Social Change	17
2.2.1 Markets as Drivers of Social Change	17
2.2.2 Challenges of Creating Markets with Social Benefit	22
2.2.3 Literature Gap	25
2.3 Brokerage Literature	27
2.3.1 Brokerage Organizations	27
2.3.2 Brokerage and Transformation	30
2.3.3 Process Lens: Brokerage in Action	35
2.3.4 Literature Gap	37
2.4 Analytical Framework: Brokerage and Systemic Impact	38
Chapter 3 Methods and Setting	46
3.1 Chapter Summary	46
3.2 Research Strategy	46
3.3 Research Setting	51
3.4 Data Collection	54
3.4.1 Initial Exploratory Fieldwork	54
3.4.2 Observations	56
3.4.3 Interviews	58
3.4.4 Archival data	60

3.5	Data Analysis	62
3.5.1	Data analysis procedure	62
3.5.2	Data analysis considerations, quality criteria, and tactics	66
Chapter 4	<i>The Case of FoodShare: A Brokerage Organization that Stimulated System-</i>	
level Impact	<i>.....</i>	68
4.1	Chapter summary	68
4.2	How a brokerage organization can be identified?	70
4.3	FoodShare in response to failure in existing systems	72
4.4	Evolution of FoodShare and its innovative models	74
4.4.1	Period 1: FoodShare as a facilitator for charity approach to food insecurity (1985-1992).....	75
4.4.2	Period 2: FoodShare launches social enterprise and incubation approach (1992-2000)	80
4.4.3	Period 3: Community partnership and animation projects (2000-2005).....	92
4.4.4	Period 4: Emergence of Good Food Markets as ‘replicative platforms’ (2005-2014).....	102
4.4.5	Summary and highlights: market and community programs	110
4.5	Nested levels of impact	116
4.6	Participants from community, market, and public domains.....	120
4.7	Mechanisms in the realm of public and philanthropic actors	124
4.7.1	Extending reciprocal interaction between public and philanthropic actors and the community	126
4.7.2	Co-creation of problem-solving and solution domains.....	133
4.8	Mechanisms in the realm of community and market actors	138
4.8.1	Creating a brokered market model (Market Brokerage)	141
4.8.2	Co-creation of local community solutions (Community Brokerage).....	152
4.8.3	Creating markets as replicative platforms (Platform Brokerage)	161
4.9	Integrating findings toward a grounded model	169
4.9.1	Cycles of experimentation and implementation	169
4.9.2	A grounded model of decentralized brokerage for systemic impact.....	173
Chapter 5	<i>Dynamics of Creating Socially-oriented Markets: A Mathematical Modelling</i>	
Approach	<i>.....</i>	177
5.1	Chapter Summary	177
5.2	Socially-oriented markets: characteristics and challenges	178
5.3	Simultaneous diffusion and tipping behaviours in market dynamics	186
5.4	Methodology and Approach.....	189
5.5	Model Scope and Concepts	191
5.6	Computational Model	196

5.6.1	Utility-Based Diffusion Model	196
5.6.2	Coupled Diffusion Model	200
5.7	Extending the Model for Market Establishment	205
5.8	Findings	208
5.8.1	Tipping boundary for one side of the market	208
5.8.2	Analysis of a two-sided tipping boundary.....	213
5.8.3	Dynamic analysis of long-term establishment in the market	219
5.9	Strategic Actors' Roles in Coupled Market Arrangements.....	226
Chapter 6	<i>Summary of Findings, Discussion, & Conclusions</i>	<i>233</i>
6.1	Chapter Summary	233
6.2	Summary of Findings for 1st Question: Brokerage and Systemic Impact	234
6.2.1	Decentralized Brokerage for Systemic Impact.....	235
6.2.2	Joint effort of social and public sectors	241
6.2.3	Dynamic evolution of intermediation for socially-oriented market creation	246
6.3	Summary of Findings for 2nd Question: Dynamics of Socially-oriented Markets	250
6.3.1	Two-sided Tipping Behaviour	251
6.3.2	Trade-offs in the Establishment of Communities of Supply and Demand	253
6.4	How the Findings Contribute to the Existing Literature.....	256
6.4.1	Contributions to our understanding of brokerage and systemic impact.....	257
6.4.2	Contributions to our understanding of markets with social impact	262
6.4.3	Contributions to our understanding of transformative innovation policy	267
6.5	Limitations and Future Research Directions	272
6.6	Implications for Practice and Policy	276
Reference:	280
Appendix A:	<i>Examples of Empirical Studies Relevant to Brokerage</i>	<i>293</i>
Appendix B:	<i>Interview Guide</i>	<i>296</i>
Appendix C:	<i>Illustrative Summary Table of Major Events in the FoodShare Case</i>	<i>299</i>
Appendix D:	<i>Illustrative Visual Mapping of FoodShare's Life Phases</i>	<i>303</i>

List of Figures

Figure 1- Brokerage intentions, mechanisms, and outcomes spectrum	40
Figure 2- Conceptual Framework	45
Figure 3 - FoodShare's Theory of Change (Organization's Strategic Plan 2016-018).....	54
Figure 4- Good Food Program Models.....	87
Figure 5- FoodShare's perspective on food system problems and stakeholders	97
Figure 6 - Distribution of Market and Community Lines of Work	116
Figure 7 - Good Food Program's Sales Growth (1992-2014)	117
Figure 8 - Actors present in each period.....	123
Figure 9 - Bus Tour Event Invitation Hosted by FoodShare	130
Figure 10 - FoodShare presenting a market to bus tour participants.....	130
Figure 11- A Good Food Market inside a Residential Building.....	132
Figure 12- Evolution of Problem-solving Domains Used for Program Development	137
Figure 13 - Distribution of Good Food Markets and Mobile Markets as of 2017	162
Figure 14 – Grounded Model of Decentralized Brokerage for Systemic Impact	176
Figure 15- Schematic of Model Boundary and Concepts.....	196
Figure 16- Schematic behavior of two focal variables in case of initial growth.....	206
Figure 17- Tipping boundaries for fixed utility	211
Figure 18- Tipping boundaries for variable utility.....	211
Figure 19- Coupled tipping boundary	216
Figure 20 – Effect of contact number on coupled epidemic.....	217
Figure 21 – Effect of utility reference ratio on couple epidemic	217
Figure 22 - Lower contact number on supply side.....	219
Figure 23 - Lower contact number on demand side.....	219
Figure 24 - Lower reference ratio on demand side	219
Figure 25- Supply contact number and establishment percentage.....	221
Figure 26- Reference ratio and establishment percentage	221

Figure 27- Contact number contour plot (supply established).....	223
Figure 28-Contact number contour plot (demand established)	223
Figure 29- Reference ratio (utility thresholds) contour plot (supply established).....	226
Figure 30- Reference ratio (utility thresholds) contour plot (demand established).....	226
Figure 31 - Combined effect of trial and establishment policy levers by intervening strategic actors	232
Figure 32- Conventional brokerage	237
Figure 33 - Decentralized brokerage	237

List of Tables

Table 1- Parallel sets of practices on each side of a nascent socially-oriented market.....	6
Table 2- Overview of the thesis studies.....	14
Table 3 - Brokerage mechanisms spectrum.....	41
Table 4 - Data Sources (observations)	57
Table 5- Data sources (Interviews)	60
Table 6 - Data Sources (Archival Documents).....	61
Table 7- Chronology of events and programs at FoodShare	111
Table 8- Data Structure for Mechanisms in the Realm of Public and Philanthropic (P&P) Actors	125
Table 9- Examples of Involvement in Consultative Initiatives	134
Table 10 - Mechanisms in the Realm of Community and Market Actors	140
Table 11- Socially-oriented markets' key characteristics.....	183
Table 12- Policy levers by strategic actors.....	228
Table 13- Defining features of "Decentralized brokerage"	239
Table 14- Summary of Contributions.....	271
Table 15- Examples of Empirical Studies Relevant to Brokering	293
Table 16 - Major Key Events in the FoodShare Case.....	299

Chapter 1 Introduction

“The global ambition of ‘Transforming Our World: the 2030 Agenda for Sustainable Development’ was adopted by world leaders during the 2015 United Nations Summit. This global policy framework commits the international community to end poverty, hunger and malnutrition, tackle climate change and achieve equitable and sustainable development in its three dimensions (social, economic and environmental) by 2030. Achieving the 17 Sustainable Development Goals (SDGs) of the agenda calls for comprehensive, coherent, convergent and participatory approaches from all stakeholders, including humanitarian, development, peace and climate actors.”

*The State of Food Security and Nutrition in the World 2018.
Building climate resilience for food security and nutrition
(FAO, IFAD, UNICEF, WFP, & WHO, 2018)*

1.1 Background and Motivation

A major challenge facing societies today is finding solutions to complex societal problems such as poverty, food security, and obesity, referred to as “grand challenges” (Berrone, Gelabert, Massa-Saluzzo, & Rousseau, 2016; Ferraro, Etzion, & Gehman, 2015). As suggested by the 17 sustainable development goals specified in the United Nations Agenda 2030, these problems need to be at the forefront of endeavors for enhancing human well-being and welfare (United Nations, 2015). This is a daunting task, for such problems are interwoven with each other and have root causes in existing systems, institutions, and networks (Sterman, 2001). Food security,

which means having equitable access to affordable healthy food, is an example of such a complex problem. Food security is closely connected to financial inequalities and poverty in disadvantaged communities as well as inefficiencies of the existing industrial food supply chain and distribution models (Godfray et al., 2010; Riches, 2002). At the same time, the problem contributes to numerous non-communicable diseases and consequent public health issues. Finding solutions to food security is not a trivial task for several reasons: the problem is interwoven in the work of all three societal sectors; multiple actors from different domains are contributing to the status quo; and though the food market fails to be equitable for all customer groups, public and social actors fall behind in efficiently compensating for this failure. These reasons are common among the many complex problems, as explained below.

Complex societal issues are multi-sectoral because they simultaneously cover many public, economic, and social domains (Ansari, Gray, & Wijen, 2011). In many cases, all the societal sectors are involved in the existing unfavorable state of the system. In this sense, public, private, and social actors all contribute to some degree to the complexity of the problem. In the food security example, disparity in access to and affordability of healthy food is linked to industrialized production and distribution occurring across long chains dominated by large-scale corporations that ultimately build commodity markets around food that are less concerned about underserved social groups (Giang, Karpyn, Laurison, Hillier, & Perry, 2008; Godfray et al., 2010; Riches, 1997, 2002). At the same time, public and social actors' responses are inadequate and maintain the problem. For instance, confronting hunger and food insecurity through charity-based programs such as food banks attack only the symptoms of the problem but fails to solve the underlying root causes, such as poverty (Poppendieck, 1998). In the case of the public sector's attempts,

farm and food policies need to be aligned with public health policies to ensure targeting not only individual behaviors but also the environmental context in which people live and make decisions (Story, Kaphingst, Brien, Glanz, & Robinson-O'Brien, 2008). Therefore, addressing complex problems calls for a synchronized collective process of mobilization of stakeholders from the public, private, and civil society sectors.

Contemporary problems result from not just market failures but also from many systemic failures (Weber & Rohrer, 2012; Wieczorek & Hekkert, 2012). Market failures include the creation of externalities, under-provision of public goods and services, or information asymmetries. In a simple sense, systemic failures refer to inefficiencies within sociotechnical systems of the society that encompass different societal functions and needs, such as housing, mobility, or food (Weber & Rohrer, 2012). Systemic failures lead to path dependencies since a system is bound by a set of dynamic and nonlinear constraints that cause institutional and infrastructural lock-ins (Senge, 1990). In the food security example, food deserts are one example of market and systemic failure. Food deserts are due to deficits in physical infrastructures such as transportation and housing in low-income neighborhoods reinforced by lower investment from the private sector for healthy food outlets (Shaw, 2006), which itself reinforces a lower demand for healthy food. This feedback loop sustains the status quo and resolving it requires transforming the behavior and decisions of many actors across the system.

Solutions to complex challenges need to transform existing social and economic structures in which actors from the public, social, and market spheres interact with the aim of introducing favorable social, institutional, and behavioral changes (Geels, 2004). Adopting the transformative lens implies moving beyond charity-based or service-delivery approaches that target mostly

problem symptoms when attempting to enhance human well-being. In the case of food security, the charity-based approach includes direct food assistance programs by government or non-profit actors in the form of food banks. In contrast, novel supply chains and markets (Cadieux & Slocum, 2015; Poppendieck, 1998) and building alternative socioeconomic spaces around food (Leyshon, Lee, & Williams, 2003) are examples of the transformative approach to solving food security. These undertakings to utilize different interactions and resources across the network for scalable and sustainable impact are challenging because they engage a wide range of stakeholders across sectors and introduce new sets of arrangements to the system (on market creation and consequent social changes, see Kurland & McCaffrey, 2014; Rao, Monin, & Durand, 2003; Weber, Heinze, & DeSoucey, 2008).

Introducing new arrangements among actors in a social structure requires influencing actors' interactions as well as bridging gaps across networks of action (Obstfeld, 2017). For this reason, organizational actors with a brokering orientation are critical to nurture new socioeconomic arrangements aimed at transformative outcomes. Brokering refers to "the behavioral processes through which organizational actors shape others' relationships" (Halevy, Halali, & Zlatev, 2018). A multiplicity of sectors and problem domains makes organizational actors with brokering capacity of high influence in fostering participation, engagement, and innovation at the system level. By influencing the interactions among actors from different sectors, brokering actors help to align actors' endeavours across public, market, and social sectors and pave the way for innovation at the intersection of these actors' roles.

Actors with brokering behaviours play crucial role in intervening the status quo in the presence of market or systemic failures. Brokering has been used to explain mobilization-related

issues for cultivating change, be it collective action, organizing for innovation at the organizational or field level, social movements, or what Obstfeld calls “getting new things done” (G. F. Davis & Zald, 2005; McAdam, Tarrow, & Tilly, 2001; Obstfeld, 2017). In these instances, actors pursuing change in the status quo are motivated by an identified degree of inefficient performance of existing markets, institutions, or systems. Examples include social injustice that excludes challengers from access to resources and institutionalized means in a movement (McAdam et al., 2001); a suboptimal taken-for-granted product or process in an organization (Obstfeld, 2005, 2017); or inefficiency of intersectoral networks to cooperate on a complex public goods problem (Collins-Dogrul, 2012). In addressing societal problems, the same suboptimal level of interactions can exist, and brokering is essential to bring novel forms of interactions and arrangements to the actors across the market, social, and public sectors.

Introducing new market-form solutions for societal problems is an example of brokering organizations’ attempts to create new arrangements across a system. In such projects disconnected and isolated stakeholders from the supply and demand sides are brought together to interact socially and economically in a sustained manner in a way that creates broader social benefits (e.g. Mair, Marti, & Ventresca, 2012). These actors can range from producers, distributors, philanthropic organizations, non-profits, and public actors to individual customers, community organizations, institutional buyers, and educators. The idea of market-form solutions lies in generating and harnessing market dynamics in response to existing socioeconomic arrangements that have led to a societal problem. There are many examples in which communities of stakeholders on the supply and demand sides need to adopt new approaches and act on different aspects of the problem simultaneously and in interaction with each other to

form a new market arrangement with broader social or environmental benefits. Table 1 provides some examples of interdependent sets of actors on the supply and demand sides as a socially-oriented market is created and the simultaneous practices that need to be adopted by each side. As illustrated in Table 1, to create an innovative market-form response to food security, various actors *within* and *outside* the food system need to get involved, including farmers, food processors, wholesalers, retailers, consumers, and community organizations. In creating community produce markets by shortening the link between local production and urban consumption, smallholder farmers need to adopt new farming, distribution, and sales approaches to be suitable for local consumers. At the same time, new purchasing and consumption habits need to be adopted by consumers in marginalized neighborhoods to promote a new market model. In addition, community organizations can become involved by becoming institutional buyers or operators of community markets, and food processors can join by selling to these new markets. All these involvements are part of the new arrangements that use market models in creating social benefits. I refer to such new arrangements as “socially-oriented markets” and use the term when exploring the dynamics of the emergence and sustainability of such market initiatives.

Table 1- Parallel sets of practices on each side of a nascent socially-oriented market

Example market	Practices to be adopted on each side		
	Demand Side	Supply Side	Example Studies
Local Community Produce Markets	Actors: households New practices: <ul style="list-style-type: none"> • consumption of local vegetables in season (eating and shopping habits) • Social motivations such as supporting local farms and concern for environment 	Actors: local and smallholder farmers New practices: <ul style="list-style-type: none"> • New farming techniques such as intercropping • Use of unconventional distribution channels (e.g. volunteering consumers) • Advertising and framing for local food 	(Stagl, 2002) (Hinrichs, 2000)

	<ul style="list-style-type: none"> • Practices in support of reduced packaging 		
Distributed Mini-grid Electricity Market	Actors: rural residential customers, local businesses, telecom companies <ul style="list-style-type: none"> • Joining the mini-grid's distributed network (as opposed to the available centralized electricity network) 	Actors: mini-grid operators, local entrepreneurs capable of operating renewable energy, small-scale energy service companies <ul style="list-style-type: none"> • Joining the mini-grid network and operating off-grid renewable energy production 	Rockefeller Foundation Initiative (Accenture Development Partnerships, 2015)
Market for Composting and Recycling	Actors: home gardens, farmers <ul style="list-style-type: none"> • Substitute compost for chemical fertilizers in farming practices 	Actors: fertilizer producers, entrepreneurs <ul style="list-style-type: none"> • For current producers: Add compost line of production • Building compost plant; Use of new techniques in support of environmental threads (e.g. methane reduction) 	(Lounsbury, Ventresca, & Hirsch, 2003) (Escalante, 2013) (Slater, Frederickson, Wield, & Potter, 2006)

This dissertation answers two sets of research questions that investigate the prominent role that organizational actors with a brokering orientation play in stimulating systemic impact as well as the pathway to initiation and development of new market arrangements with a social-benefit purpose. The line of research to answer to the first question examines the ways in which brokering actors mobilize resources and actions to create impacts beyond their local reach. The second line of research investigates the emergence of new market arrangements across communities of stakeholders from the supply and demand sides and the role that actors with a brokering orientation play in influencing the early stages of market dynamics. In the next section, each of these research lines, their relevance, and the approach to studying them are presented.

1.2 Research Questions and Approach

1.2.1 First research question: brokerage and systemic impact

As a result of the multiplicity of stakeholders and interactions, when creating new socioeconomic arrangements with social benefits, the role of particular organizations with brokering behaviors becomes important (e.g. Mair, Marti, & Ventresca, 2012). These organizational actors, by connecting stakeholders and building collectivity of action, facilitate the rise of nascent markets or innovative solutions that target a societal problem. They mobilize resources and support the creation of new connections for collaborative attempts. However, we do not know very much about the role of brokering actors in connecting networks of actions and actors from different sectors to produce innovative solutions to societal challenges. In the first line of inquiry, I explore the role of actors with a brokering orientation and how they influence others' relationships and interactions to create systemic impact.

Organizational and individual actors with brokering behaviors contribute greatly to innovation and creative outcomes (Lingo & O'Mahony, 2010; Obstfeld, 2005). They do so by synthesizing ideas and resolving ambiguities over the course of a creative project or by producing coordinated action that leads to innovation. Brokering may also lead to greater public goods or macro-level benefits for the network (Collins-Dogrul, 2012; Sgourev, 2015). Through their role in social integration and catalysis, brokering actors, by influencing the frequency of interactions or enhancing the quality of relationships, contribute to macro-level outcomes such as cross-sectoral partnerships (Collins-Dogrul, 2012) or revolutionizing an art field (Sgourev, 2015). Despite this understanding, the pathways by which brokering organizations create impacts beyond their focal

network is not well understood, particularly in the context of creating social benefits. For this reason, the first research question attempts to explore the role of such actors by asking:

1. How do strategic bridging organizations transform existing socioeconomic arrangements for systemic social impact?

In this study the brokerage concept is used to explore the role of bridging actors in transforming socioeconomic arrangements to stimulate solutions of societal problems. In the simplest sense, brokers are actors that bridge the gaps in social structures (Burt, 2000; P. Marsden, 1982; Obstfeld, Borgatti, & Davis, 2014; Small, 2009); facilitate flow of goods, information and opportunities across those gaps (P. Marsden, 1982; Stovel & Shaw, 2012); and nurture other actors' relationships and connections (Halevy et al., 2018; Obstfeld, 2005). Organizational scholars use various terms to refer to one or the other of these activities; they include boundary spanners (Aldrich & Herker, 1977; Friedman & Podolny, 1992), bridging organizations (Brown, 1998; Hahn, Olsson, Folke, & Johansson, 2006), intermediary organizations (Dey & Lehner, 2017), broker organizations (Chaskin, 2001), network administrative organizations (Provan & Kenis, 2008), and mediating organizations (McQuarrie, 2011), among others (Collins-Dogru, 2012). In this study, the term "brokering" is chosen because of its pervasiveness in different organizational contexts and its multifaceted nature. More importantly, the connection between brokering and the creation of public-good and macro-level impacts in recent studies (e.g. Sgourev, 2015), makes it a valuable concept for exploring the emergence of novel solutions to societal problems that cut across multiple sectors and domains.

While the classic image of brokerage highlights the mediation role of brokers with competitive profit-oriented interests, emerging "*iungens* brokerage" (the third who joins) theory

recommends the connecting and catalysis role of such actors in achieving greater public good (Stovel & Shaw, 2012) by facilitating and fostering collaboration over time (Collins-Dogrul, 2012, p. 92). *lungens* brokerage scholarship has made some progress in explaining the macro-level outcomes of brokerage (Sgourev, 2015; Stovel & Shaw, 2012) by associating these outcomes with brokers' catalysis role. Brokers with a role in social integration (Stovel & Shaw, 2012) and serving as catalysts by enhancing the rate of interactions among other actors (Collins-Dogrul, 2012), make coordination across distant actors possible. They may trigger chains of events that can lead to broader network-level benefits (Sgourev, 2015). However, the processes through which these organizations evolve and stimulate systemic impact have remained unexplored. Systemic impact occurs when the consequences of brokerage organization exceed the impact on a single organization or a few adjacent organizations in the network by stimulating changes across the entire ecosystem.

The brokering notion (Halevy et al., 2018) is particularly beneficial when studying transformative change in a system; for "in situations where hierarchies and markets are less developed along with poor information distribution across isolated actors, potential for emergence of brokerage mechanisms rises" (Stovel & Shaw, 2012). This is due to the role of brokerage in facilitating social interactions and enhancing economic and political activity by integrating socially distant actors. In the context of creative industries the underdevelopment of existing systems is thought to be a conditioning factor for the emergence of brokerage. Many of the intermediaries with brokering role emerge in response to an observed inefficient level of connectedness between actors due to market or innovation system failures (Howells, 2006; Klerkx & Leeuwis, 2009). Therefore, organizations such as public or non-profit organizations that

arise in response to system failures have a high potential to demonstrate brokering behaviours to achieve their social mission.

In the empirical study, I examine the case of the largest food security organization in Canada and its social enterprise program that has showcased an innovative transformation in the food provision model for disadvantaged communities since its initiation in 1985. By studying the evolution of this organization and its surrounding network, I explore how this non-profit has achieved systemic impact over the last three decades through bridging the food supply chain across different communities, governments, and market actors.

The examined organization played different brokering roles through its portfolio of programs over the course of its life. Since its initiation in late 1980s, the organization worked at the intersection of local government's organizations and nonprofits working on the food and hunger issues. In this sense, part of organization's brokering role was facilitating interactions between public and social sectors' actors. In addition, through its leading market-based initiative the organization created a model to connect local farmers to underserved consumers brokering market interactions across the food supply chain. The organization in active engagement with public, community, and market actors demonstrated a history of different brokering behaviors within and across these sectors. To answer the first research question, I investigate different change efforts by this organization that underscore the organization's brokering behaviors in stimulating the emergence of a new food distribution model to tackle food security. By doing this, I uncover processes through which brokering in different community, public, and market domains has been translated into a broader impact across the food system.

1.2.2 Second research question: emergence of socially-oriented markets

Strategic non-profit or governmental actors can also create impacts by developing alternatives to existing market arrangements and diffusing them among stakeholders on both the supply and demand sides. Emerging market arrangements are used to create social benefits for the participating actors and the broader society. We can trace the use of markets for social purposes in many different forms: taking existing markets as entry points, as in base-of-pyramid interventions for poverty alleviation (Karnani, 2011), or new market creation as a result of collective efforts to tackle broader environmental concerns, as in the case of municipal solid waste management, recycling, or composting industries (Aiken & Slater, 2007; Lounsbury et al., 2003). An illustrative example is launching market-based initiatives that transform existing forms of supply-demand interaction, as with farmers' markets, food cooperatives, or local community food markets that are a market-based initiative for addressing food security, changing consumption patterns, and revitalizing local food economies (Stagl, 2002).

I call such markets “socially-orientated markets” and define them as market platforms that introduce a new arrangement to stakeholders from the supply and demand sides to interact within and across these sides in a sustained manner toward a broader social impact. Creating socially-oriented markets is highly challenging and makes them an interesting line of inquiry. First, social benefit is usually created through an innovative mode of arrangement across multiple communities of stakeholders from the supply and demand sides. Second, interdependencies between the sides are high, and high elasticity on both the supply and demand sides makes these markets fragile in their early stages. Therefore, within and across the supply and demand sides, actors evolve roles by observing one another (Fligstein & Dauter, 2007). Table 1 demonstrates

different sets of practices that supply- and demand-side stakeholders need to adopt as a market emerges in order to become an exemplary socially-oriented market. This broad conceptualization of market as an interdependent network of relations helps in studying the creation of markets with social problem-solving objectives. For instance, in the poverty alleviation context, market creation is successful when a market is viewed “as a complex interrelated system of moving parts that required social intervention simultaneously across all participants in the market” (K. McKague, Zietsma, & Oliver, 2015).

In general, market projects cut across multiple sectors and stakeholders, and new arrangements ought to arise on different sides of the system (Fligstein & Dauter, 2007). However, socially-oriented markets pose a more complex challenge, as the value of joining the market needs to be recognized by stakeholders on *both* sides simultaneously because of the high interdependencies of the actors on the two sides.

The second line of inquiry in this thesis addresses how such socially-oriented markets come into existence in the presence of the chicken-and-egg problem of two interconnected sides. Involvement and acceptance of each side is highly influenced by the presence and engagement of the other side. Therefore, the questions of which side, supply or demand, to stimulate and what policy levers to use to influence this interdependent dynamic have theoretical and pragmatic value. For this reason, second set of research question asks:

How do socially-oriented markets emerge in the presence of interdependent communities of actors; and how can long-term establishment of such market initiatives in settings with high interdependency be achieved?

The first question aims to understand the necessary conditions of simultaneous growth of market arrangements in the stakeholder groups on the supply and demand sides. The second question seeks to identify the system parameters that guide the market towards long-term sustainability. In order to study these two questions, I construct a mathematical model; and through analytical and numerical analyses, I discuss the major dynamics and tipping behavior of the system for a successful market trajectory. By exploring the tipping behavior and thresholds of the system, the study elaborates the path dependency of market outcomes. I demonstrate how successful adoption of practices on the different sides depends on the system's parameters and how these parameters can be altered by intervening actors—public or social actors—for favourable outcomes.

Table 2 provides an overview of the two studies that my dissertation encompasses. In response to the first research question, by exploring the role of brokering actors, I zoom in on the “how” question of creating systemic impact by highlighting the processes through which new arrangements in the market or other domains may arise. Inspired by the market model in the inductive case study, and in response to the second research question, through analytical and numerical analysis of the constructed computational model, I address the “what” questions about the emergence of socially-oriented markets: namely, what conditions favour emergence of socially-oriented market dynamics, what drives those dynamics toward a new equilibrium, and what policy and intervention levers may intervening actors use to influence those dynamics.

Table 2- Overview of the thesis studies

Studies	Research Questions	Theoretical lens	Methods	Key chapters
Brokerage organizations and systemic impact	1. How do strategic bridging organizations transform existing	Brokerage theory	Inductive qualitative case study	Chapter 3 Chapter 4

	socioeconomic arrangements for systemic social impact?			
Creation of socially oriented market dynamics	How do socially-oriented markets emerge in the presence of interdependent communities of actors; and how can long-term establishment of such market initiatives in settings with high interdependency be achieved?	Market creation and social impact	Mathematical modeling	Chapter 5

1.3 Thesis Outline

This dissertation is structured as follows. Chapter 2 presents an overview of the literatures on markets for social change and brokerage actors that provide the groundwork for the modelling and empirical studies, respectively. I first explain the current understanding of the role of markets in addressing societal problems and the challenges involved in creating new markets by using the sociology of markets lens. Similarly, I provide an overview of the brokerage literature and existing theoretical gaps and how those gaps are addressed in this research by using a process conceptualization of brokerage. Chapter 3 provides a methodological overview of the research strategy, research setting, data collection, and data analysis strategies for the inductive qualitative study. Chapter 4 reports the empirical findings on the role of brokerage organization in building capacity for network-wide transformation and the emergence of the inductive model developed from the findings. In Chapter 5, I present the computational modelling study of the emergence of social markets. After describing the conceptual model and the theoretical background informing it, I present the mathematical model and discuss the analytic and dynamic

computational results regarding the tipping behaviours and long-term establishment of the market. Chapter 6 of the thesis brings together the studies by presenting a summary of the findings for the two lines of inquiry and a discussion about the contributions of the findings to the existing literature as well as to policy and practice.

Chapter 2 Literature Review

2.1 Chapter Summary

In this chapter, I present an overview of the literatures on organizations with brokering orientation as well as the role of markets in social change. The focus of the first section is different perspectives on the use of markets for producing social benefit. Following that I present an overview of the challenges in creation of markets with societal problem solving and social impact at their core. The second section lays out brokerage theory with emphasis on brokers' role in achieving broader impact. A review of the emerging discussions on the process perspective on brokerage is provided, for it constitutes the central lens in studying brokering processes in this thesis. The chapter ends with a presentation of a conceptual framework that guides the qualitative study presented in Chapters 3 and 4 on brokerage and macro-level impact.

2.2 Markets and Social Change

2.2.1 Markets as Drivers of Social Change

Market creation and market-based activities are a powerful means for social growth and human development (Mair et al., 2012; Seelos & Mair, 2007). Markets are “social spaces where repeated exchanges occur between buyers and sellers under a set of formal and informal rules governing relations between competitors, suppliers, and customers” (Fligstein & Dauter, 2007, p. 9). Markets in industrialized economies underlie many aspects of both the social and the

economic life of consumers, businesses, and even governments. For this reason, market-based solutions can be used as a platform to create new interorganizational arrangements introducing transformation and change (Corbett & Montgomery, 2017). Developing new markets or transforming existing ones has been a powerful tool for poverty alleviation (K. McKague et al., 2015; Seelos & Mair, 2007), developing inclusiveness (Mair et al., 2012), and facilitating trade in public goods, as in carbon markets, among other social and environmental objectives. For instance, McKague and colleagues (2015) examined an intervention to develop the dairy value chain in Bangladesh and found that in resource-constrained settings and building the social structure of the market by a non-governmental organization as well as the market participants were critical for success in market creation.

In affiliating markets to positive social change, organizational scholars have more recently discussed markets with social and environmental problem solving at their core (Corbett & Montgomery, 2017; B. Lee & Georgallis, 2018; McInerney, 2014). Terms such as “social-benefit markets” (Corbett & Montgomery, 2017) and “moral markets” (B. Lee & Georgallis, 2018; McInerney, 2014) are used to refer to markets in which products, services, or the means of production are believed to be normatively superior and actors pursuing them are driven by moral and normative motives. Markets and sectors such as renewable energy (Durand & Georgallis, 2018; Sine & Lee, 2009), recycling (Lounsbury et al., 2003), organic food (Sikavica & Pozner, 2013), and grass-fed meat (Weber et al., 2008) are among these. Such markets with significant economic and social change objectives owe their emergence, development, and survival to mobilization efforts by movement activists, organizations, or dedicated entrepreneurs.

In this spirit, different streams of the literature underscore markets and the market creation process as favorable tools for social change efforts by different actors. Social movement and organization scholars highlight the microsocial processes involved in market creation projects. A substantial number of empirical studies discuss how movements play a crucial role in stimulating transformation through market projects (Campbell, 2005; Carroll & Swaminathan, 2000; Lounsbury et al., 2003; Rao, Morrill, & Zald, 2000; Schneiberg & Lounsbury, 2008; Weber et al., 2008). In these studies, on-the-ground social processes on how movements enable markets are explored. Some of these processes include how movements reframe consumers' preferences and consumption patterns (Weber et al., 2008), or frame market opportunities for producers, or legitimate new means of production (Sine & Lee, 2009). For instance, Weber et al. (2008) examine the nascent market for grass-fed beef and discuss the formation of identity and cultural codes among consumers and producers in overcoming the challenges of motivation, commitment, and innovation. Overall, movement studies explain how movements are catalysts in market formation and identify the microsocial processes that are involved in forming and persuading communities of production and consumption.

The role of key intermediary actors in the process of transforming or building markets for stimulating positive change is highlighted in many studies (Mair et al., 2012; McNerney, 2014; K. McKague et al., 2015). For example, McNerney's analysis of the emergence of a market for non-profit technology consulting services reveals the fundamental role that hybrid social enterprises play in navigating and translating different perspectives of market participants (2014). Studies that connect institutions and markets also highlight the role that the state, firms, or entrepreneurs play in legitimating new practices in institutional fields in the market building

process (Lounsbury & Glynn, 2001; Sine, Haveman, & Tolbert, 2005). Lounsbury et al. (2003), for example, illustrate how non-profit recyclers enabled the rise of the recycling industry. These non-profits helped create emerging producers' communities that supported practices counter to the incumbent system and sought to break institutionalized field frames. They can also help legitimize new arrangements and provide incentives for entrepreneurial firms to enter (Sine et al., 2005). In general, intermediary actors by intervening market participants, their interactions, and overarching institutions have a notable influence in the market building process.

One common theme across these studies is that they highlight the microsocial processes across supply or demand sides by assuming that new market arrangements or industries come to existence when enough stakeholders are persuaded to engage with the new market. Microsocial processes include on-the-ground activities that provoke market access and participation leading to successful market creation, such as collective behavior of actors to form new identities in support of new practices (Rao et al., 2003); mobilizing cultural codes that motivate and retain producers (Weber et al., 2008); and transforming existing socioeconomic practices while an industry is emerging (Lounsbury et al., 2003). As another example, Mair et al. (2012) identify two categories of such micro processes that unfold as an intermediary non-profit attempts to include marginalized participants (women in Bangladesh) in the market. These authors discuss how the non-profit enabled creation of inclusiveness in the market by redefining market architecture and legitimating new actors.

In addition to understanding the microsocial processes of market creation for social benefit, it is important to account for macro-level dynamics at the intersection of different groups of market participants. In the early stages of this process, market success depends on the

simultaneous presence and engagement of stakeholders from both the supply and the demand sides. Therefore, we need to explore the macro-level dynamics that arise from interactions among groups of stakeholders in the market. Macro-level dynamics include market trajectories such as adoption or rejection of new market arrangements by the communities of supply and demand. This perspective is more in line with calls for a holistic approach to market creation and viewing markets as interrelated systems of moving parts (Fligstein & Dauter, 2007; Padgett & Powell, 2012). We know little about the macro-level dynamics that happen in the early stages of creating markets with social benefit.

Creating markets with social benefits involves a set of complexities that arise from the need for involvement of multiple groups of social and public actors (e.g. Kolk, Levy, & Pinkse, 2008 for carbon markets) and the formation of new interorganizational arrangements (Corbett & Montgomery, 2017). This multiplicity of actors and interactions among actors across the supply and demand sides influence the macro-level dynamics in the early stages. For this reason, the mathematical model developed and analyzed in Chapter 5 investigates the macro-level dynamics and the complexities that arise from multiplicity and interdependencies among stakeholders and their influence on the success of market creation for social impact. In the following subsection, some challenges of creating markets with social impact orientation are presented. This directs attention to a gap in the literature in regard to understanding market creation for social benefit, and it sets the stage for a macro-level formulation of the emergence of socially-oriented markets that I introduce in Chapter 5.

2.2.2 Challenges of Creating Markets with Social Benefit

Creating markets in context of social problem-solving encounters two particular challenges rooted in the multiplicity of stakeholders and organizing their interdependent interactions. One feature of such markets is that they are social and economic projects with new norms and are designed to transform incumbent socioeconomic systems (B. Lee & Georgallis, 2018). It is due to this dual impact that these markets create different incentives for participation than traditional markets (Sandor, Walsh, & Marques, 2002) and usually involve agreement and participation of multiple interconnected actors from both the supply and demand sides as well as social and public actors (Kolk et al., 2008). Therefore, the success of such market projects is faced with challenges of participation and persuasion of actors from both sides about the benefits of the new market arrangement as well as organization of relationships across these groups as the new market emerges. In this sense, the formation of markets as innovative solutions to complex societal problems is very fragile in the early stages for two reasons. First, projects cut across a multiplicity of stakeholders across the ecosystem, and participation becomes more serious due to the presence of numerous groups of actors. Second, organization of the relationships among these groups of actors is more difficult, as their participation is interdependent on each other because of the newness of the arrangements.

First, the involvement of various groups of stakeholders in the process of creating markets that target social, environmental, and economic problems is highly important and challenging. In general, markets do not emerge naturally in isolation but from the collective action of several actors from the supply and demand sides who build relationships and create trust while developing roles in relation to one another (Fligstein, 1996; Fligstein & Dauter, 2007). At the

conceptual level, markets are considered dynamic social structures that emerge from connections formed between stakeholders (White, 2002). From early on in the analyses of the market creation process, scholars paid significant attention to producers and entrepreneurs as the major stakeholders and to their market entry decisions (White, 1981). Later studies called for more attention to the critical role of demand-side customers as new market practices spread through the legitimization of new consumption and production choices (Zelizer, 2005). A more holistic perspective on market creation goes beyond this, as markets are the result of collective action from *all the actors* involved, including firms, suppliers, customers, non-profits, and government actors (B. Lee, Struben, & Bingham, 2018). Creating markets with social impact entails bringing in a diversity of stakeholders beyond producers and consumers, such as actors across the supply chain, groups excluded from the market (K. McKague et al., 2015), and political and social actors (Kolk et al., 2008). Consequently, the challenge of persuading and engaging all these different actors becomes an essential part of the process. An example is the case of the creation of a market for alternative products through environmental and conservation movements in which consumers, retailers, producers, and farmers were targeted for persuasion and promotion of the new market (Pearce, 2004).

The second challenge of creating markets for social impact arises from the organization of relationships between multiple groups of stakeholders that are involved and develop roles in response to each other. In general, organizing the interactions within and across communities of producers and consumers (White, 2002) or the “exchange” challenge (Fligstein & Dauter, 2007) is one of the challenges of nascent markets. Bridging the social distance between consumers and producers and building market infrastructures among these groups can help solve this exchange

problem in markets with social benefit (Weber et al., 2008). The role of intermediary actors is highly critical here because they facilitate the organization of relationships among a variety of stakeholders in the process of creating such markets.

More importantly, in markets with social benefit, the need for engagement of various stakeholders and their interaction with each other creates interdependence among a group of stakeholders. Overall, in market projects, actors from the supply and demand sides develop roles from observing each other's behavior (Fligstein & Dauter, 2007). This is an extended form of what White (1981) suggested as producers observing each other and adjusting their behavior as a market emerges. Interdependence in markets with social benefit means that the adoption of new arrangements in each group of stakeholders does not occur in isolation and the behavior of one group influences the decisions and behavior of others. This is because each group develops its perception of the market by observing and interacting with each other as the market emerges. For instance, in the emergence of the US wind energy sector, the multiplicity and interdependence of the stakeholders has been discussed: environmental groups advocated for renewable energy technology, technology entrepreneurs became more interested in new opportunities and resources available in this sector, new communities of supporters from the demand side were formed, and regulatory regimes were influenced within the governmental officials' community (Sine & Lee, 2009). This interdependence and relationship organization challenge makes markets with social benefits fragile and creates a chicken-and-egg problem to be faced at the outset.

To sum up, for creating markets with social benefit, a multiplicity of stakeholders and interdependencies across and within groups make the market creation process in the early stages

a difficult task. Therefore, new markets emerge not only as a result of widespread adoption of market arrangements across different actors, but also because of the engagement and acceptance of those actors, whether producers or consumers, as they interact with each other and evolve roles. Whatever the challenges of market creation are, regardless of their economic or social objectives, the multiplicity of stakeholders and their interrelations in the market creation process generate further challenge. For this reason, to study the formation of markets with social impact, we need to go beyond current understandings to bring this multi-sidedness, interdependency, and joint growth into the analysis.

2.2.3 Literature Gap

Much work in the literature on markets and their role in positive social change focuses on the microsocial processes involved in the early stages of market creation. In this sense, research on market creation explores the on-the-ground processes that affect legitimization of practices, products, producers and building trust on the side of producers or between consumers and producers (Sine et al., 2005; Weber et al., 2008). When it comes to the market creation process that involves a multiplicity of stakeholders across the system and their interdependencies, little is known about the impact of such interdependencies at the macro level and the dynamics that arise at the intersection of supply and demand. Building on the knowledge of the microsocial processes that are at work when markets emerge, one can investigate how these interactions within and across communities of supply and demand influence market trajectories at the macro level.

In the case of markets with social benefits, the current literature falls behind in accounting for the complex array of stakeholders and their dynamic interactions as markets are created. In

general, great attention has been given to competition and the firm unit of analysis in market creation studies. But when adding different groups of stakeholders to the picture, we need a holistic perspective that considers the complexities that result from the presence and interaction of different actors with each other. An example of the neglect of a holistic perspective can be found in the earlier critiques of market creation studies in the sociology of markets (Fligstein & Dauter, 2007; Zelizer, 2005). Zelizer argues that the overemphasis on the production side neglects the fact that for a market to grow consumers have to become convinced about the value and legitimacy of its products (Zelizer, 1983, 1997). For markets in the social problem-solving context, the range of actors goes beyond but can include members across the supply chain, public sector organizations, and social or community organizations. For this reason, by capturing a relational and dynamic conceptualization of the market, one can respond to the calls for a holistic perspective on markets and see them as a complex system of interactions between multiple actors that need simultaneous interventions for a favorable social outcome.

Therefore, incorporating all sides and examining their complex relations at the macro level is the key to market creation processes with social impact. This perspective enables us to understand the big picture of developing new markets with social benefit as a result of the simultaneous acceptance and adoption of new market practices among interdependent groups of stakeholders. For such markets to create impact, a certain level of transformation is needed in the habitual practices of consumers, producers, retailers, supply chain actors, and even non-profit or government actors. By creating and analyzing a model that integrates interdependencies between supply- and demand-side actors as well as intervening actors from the social and public sectors, the market emergence study in Chapter 5 reveals such an understanding of creating and

sustaining a market-based solution to complex problems. As explained, intermediary actors who bridge the gaps across the system to facilitate organization of relationships and complexities play a crucial role in market creation for social benefit (Mair et al., 2012). The next section reviews the brokerage literature to find a concept to capture the role of intermediaries in social structures that produce positive social change, including markets with social impacts.

2.3 Brokerage Literature

2.3.1 Brokerage Organizations

Innovating new socioeconomic arrangements, such as creating new markets with social benefits, involves altering the actors' relationships and bridging the gaps in the social structures that are at the core of the brokering notion (Obstfeld, 2017). Organizational actors with a brokering orientation are thought to be an integral part of navigating interactions and relationships to induce change in social and economic systems (Halevy et al., 2018). In the simplest sense, brokers are actors that bridge gaps in social structures (Burt, 2000; P. Marsden, 1982; Obstfeld et al., 2014; Small, 2009). Brokerage is defined as a process in which "intermediary actors facilitate transactions between other actors lacking access to or trust in one another" (P. Marsden, 1982). Similarly, Stovel & Shaw (2012) provide a complete definition of brokerage as "the process of connecting actors in systems of social, economic, or political relations in order to facilitate access to valued resources" (p. 141). Therefore, two common characteristics of brokerage actors are bridging the gaps in a social structure and facilitating the flow of goods, information, and opportunities across those gaps. Tracing its roots back to sociological literature on networks (Burt, 1997, 2000, 2004), the brokerage concept is used to study a wide range of

situations in which actors occupying the space between different social groups, manage and channel information, goods, or services to make certain goals happen.

Influencing others' interactions and relationships as well as bridging the social gaps across distant parties have been a pervasive concept in the study of different organizational phenomena (Collins-Dogrul, 2012). Organizational scholars use different terms to study these roles, including boundary spanners (Aldrich & Herker, 1977; Friedman & Podolny, 1992), bridging organizations (Brown, 1998; Hahn et al., 2006), intermediary organizations (Dey & Lehner, 2017), broker organizations (Chaskin, 2001), network administrative organizations (Provan & Kenis, 2008), and mediating organizations (McQuarrie, 2011), among others. Brokerage is also a relevant concept to study transformations such as the advancement of social movements (Gould & Fernandez, 1989; McAdam et al., 2001; Tarrow & McAdam, 2005; Tarrow, 2010), emergence of knowledge intensive and creative industries (Obstfeld, 2005; Howells, 2006), and organizational fields (Sgourev, 2015). In this sense, brokerage is present in many substantive domains, such as bridging market exchanges, mobilizing contention in movements, or facilitating interactions in interorganizational partnerships. The application of brokerage in explaining dynamic changes of a system as well as its cross-disciplinary and cross-methodological research trajectories provides a rich grounding for developing a theory of evolution and change at the network level.

A significant share of the scholarly works on brokerage has been in the realm of network studies to identify structural gaps and actors who bridge them (Burt, 1997; Gould & Fernandez, 1989). This network structural conception of brokerage focuses on the relational position of intermediaries compared to each other (Burt, 2004; Fernandez & Gould, 1994). The most widely recognized example of this approach is Gould and Fernandez's typology of brokerage (1989).

They characterized five brokerage structures on the basis of the direction of information flow and the extent to which different parties and brokers can be considered as one community. They distinguish five broker types with different structural configurations: liaisons, itinerants, coordinators, gatekeepers, and representatives. Predominantly, this literature links brokerage with self-interested actors, competition and conflict, and the idea that acting as broker produces individual gains for the brokers. In this conventional model of brokerage, the focus is on determining where brokerage structurally happens in a network and how actors' positions or density of structural holes is associated with individual- and macro-level outcomes (Burt, 2004).

A recent stream of research has highlighted the non-structural variations of brokerage (Obstfeld, 2005). Many of these non-structural variations of brokerage lie in two conceptualizations of brokerage. The root of these conceptualization can be traced back to the two roles that Simmel (1950) pointed out for "the third": using his position "for his own purposes" or using the interactions "as a means to the ends of the group" (*iungens*). He proposed that being positioned between distant social groups provides the person with both opportunities to benefit as well as potential outsider status. This led to the notion of "*tertius gaudens*", or "third who enjoys", the broker who benefits from the conflicts between the parties, sometimes by seizing the opportunities that arise from this conflict or even setting one side against the other. The most developed conception of brokerage has been the former; an actor bridges the social gap to make an interaction or flow of resources possible. This classic image of brokerage, which is well respected by network scholars, conceptualizes the broker as an actor who facilitates trade or interaction, and it highlights the mediation role of brokers. Brokerage gains arise from two mechanisms: first, the dependency of parties on a broker to retain access to certain valued goods

and, second, the broker's access to scarce or valuable information. Therefore, attempts by many network scholars to demonstrate the rewards that the act of brokerage produces for the broker have been in line with this tradition. Structural-holes theory (Burt, 2004), by associating the performance of individuals and their networks with the density of structural holes, has been the most pervasive extension of this idea.

A subsequent and yet to be explored view of brokerage includes brokerage that creates new connections between unconnected actors (Obstfeld, 2005). In his seminal work, Obstfeld called this form *iungens* brokerage and proposed that in order to increase innovation, organizations need to encourage more *iungens* behaviors (Obstfeld, 2005). Outcomes are believed to be different in this conception of brokerage since *iungens* brokerage leads to new connections across social gaps though not necessarily remaining in the middle of the two parties. Stovel and Shaw (2012) recall the classic image of brokerage as a "middleman", while they make the case that *iungens* brokers are "catalysts" because they alter the rate of interactions between previously unconnected actors or improve the quality of relations between involved actors.

2.3.2 Brokerage and Transformation

Both the mediation and *iungens* models of brokerage share the same idea that brokers facilitate transactions through boundary spanning. The difference is that in the *iungens* approach, brokers are less mere intermediaries and more facilitators of interorganizational relations (Chaskin, 2001; Collins-Dogrul, 2012; Obstfeld, 2005). For instance, Collins-Dogrul, (2012) uses the term *iungens* to describe the practices of boundary-spanning actors who link unconnected organizations, and she suggests that brokers and brokerage have been overlooked in organization studies. She synthesizes three streams of brokerage tradition to provide a

multidimensional theoretical framework of *iungens* brokerage. These three streams include a) network structural conceptions of brokerage that focus on the relational positions of intermediaries (Burt, 2000; Gould & Fernandez, 1989), b) interorganizational conceptions of brokerage which focus on connecting the missions and cooperative goals of actors (Chaskin, 2001), and 3) cultural-cognitive conceptions that focus on the social skills of individual brokers (Fligstein, 2001). Drawing on the emerging literature on *iungens* theory, she suggests that *iungens* are intermediaries that build and sustain interorganizational relationships, and she even furthers the notion by proposing that *iungens* are facilitators who enhance long-term cooperative relationships. Therefore, she highlights that *iungens* are more than a bridge across structural holes and work as catalysts to enable and foster collaboration over time (Collins-Dogrul, 2012, p. 92).

With the emergence of *iungens* brokerage research, scholarly inquiries have shifted from the individual to the collective outcomes resulting from brokerage. However, the mechanisms underlying such collective benefits are ripe for exploration. The roles of brokerage in intersectoral cooperation (Fligstein, 2001) or public-private partnerships in developmental projects (Stadtler & Probst, 2012) are among such studies. These organizations are known to be useful to promote interorganizational cooperative relationships because most organizations do not have enough resources or a mandate to develop these linkages (Chaskin, 2001). As an example, Stadtler and Probst (2012) demonstrate that brokers in developmental projects go beyond simply connecting the actors and act as conveners, mediators, and learning catalysts. As conveners they connect different actors through their well-established network of actors, while as mediators they influence the interactions between partners by helping them to stay motivated and reach

common understandings over the course of collaboration. Also, as learning catalysts, they help partners to acquire knowledge and expertise on the problem at hand. Rooted in an extensive network and having access to knowledge and expertise concerning the problem, broker organizations help partners learn about both the problem and the tools that can be used to solve it. A summary of empirical studies on brokerage from different streams in the literature is presented in Appendix A. From Table 1 in Appendix A, it can be seen that a common theme in earlier studies is the impact of structural conditions on individual- and network-level outcomes of brokerage (Fernandez & Gould, 1994). Also, many studies have identified the roles and functions of actors with brokering behaviours in different contexts, such as technology innovation in a firm or a network, creative industries, or collaboration across firms (e.g. Hargadon & Sutton, 1997; Howells, 2006; Lingo & O'Mahony, 2010). As shown in Appendix A, recent studies have delved more into the catalysis and collaborative roles of brokering actors and their broader impact on the network (Sgourev, 2015; Stadtler & Probst, 2012; Styhre & Remneland-Wikhamn, 2016).

In a recent account of brokering, the concept of *iungens* brokerage has been used to bridge the divide between micro-level practices and macro-level outcomes (Ibarra, Kilduff, & Tsai, 2005; Sgourev, 2015). Stovel and Shaw, (2012) discuss how brokerage can lead to significant macro-level outcomes due to its role in social integration. More specifically, *iungens* brokerage facilitates social interactions that create the opportunity for reconciling individual network strategies and the emergence of public goods, which makes linking micro- and macro-level analysis possible (Ibarra et al., 2005). There is sufficient discussion about how *iungens* brokers gain by linking actors and improving the connection and its quality to advance the ecosystem by

fostering cooperation across the network (Chaskin, 2001; Obstfeld, 2005; Provan & Kenis, 2008). By studying the case of the *Ballets Russes* (a revolutionary ballet company in the early 20th century) and its founder, Sgourev (2015) highlighted the catalysis role of brokerage and conceptualized brokerage as the interface between micro-level practices and macro-level outcome (revolutionizing art history). He proposed that through self-assembling their ties brokers trigger chains of events that lead to systemic consequences.

While the *iungens* brokerage conception has been a major development, there is still much to explore to further develop brokerage theory. Brokerage as a theoretical concept is underdeveloped (e.g. Collins-Dogrul, 2012). Great progress has been made through reassessing assumptions about the behaviour of brokers (e.g. Stovel & Shaw, 2012) and the rise of *iungens* brokerage. However, a theoretical shortcoming in the current literature is that although we can distinguish examples of individual or collective outcomes of brokerage, self or communal interests, and mediation or catalysis behaviors of brokerage, the literature has conflated intention, processes, and outcomes in conceptualizing brokerage. Competitive and self-interested brokerage is mostly associated with an open triad conception of brokerage and the belief that the broker's position creates a power and information advantage. These intentions and outcomes are believed to accompany behaviors of keeping alters apart and mediation processes. However, collective benefit-oriented brokerage is said to be linked to catalysis, connection building, and macro-level outcomes. However, we can find many cases in which these associations do not hold, and a complex array of brokerage processes arises in a given context with different outcomes. This is a major simplification in studying different outcomes of brokerage, for any brokerage mechanism can be accompanied by either motive or any

combination of outcomes (Obstfeld et al., 2014). Addressing this gap in the literature will advance our understanding of *iungens* brokerage, especially in the case of brokerage with collective impact intentions.

The emergence of *iungens* theory alongside the interorganizational conception of brokerage has encouraged studying the macro-level and public benefits of brokerage. However, the pathways through which brokerage stimulates collective benefits for the ecosystem are yet to be explored. The focus in the current literature on the catalysis role of brokerage for public good (Sgourev, 2015; Stovel & Shaw, 2012) lies in the assumption that the major barrier to a macro-level outcome is collaboration challenges across parties. However, in contexts where information distribution is poor, information is difficult to interpret, or transactions are not feasible, and when hierarchies, markets, or institutional environments are poorly developed, as in the case of building new socioeconomic arrangements for social missions, a full portfolio of brokerage mechanisms is needed as networks of actions evolve. In this sense, my second contribution speaks to this literature gap by exploring the processes through which *iungens* brokerage organizations achieve collective-benefit goals. By going beyond the catalysis role, I allow for any form of brokerage mechanism that can contribute to system-level change, and I attempt to explain when and why each mechanism arises during the evolution of a brokerage organization. Adopting a process approach to conceptualizing brokerage allows this gap to be addressed. While catalysis is critical for collective outcomes, exploring the dynamic interaction of events, interactions in the network, and the behaviors of brokers with a process lens enables us to explain the pathway toward a systemic impact.

2.3.3 Process Lens: Brokerage in Action

The quest to explore the transformational pathways toward systemic impacts stimulated by brokerage organizations in a network necessitates a view of brokerage that accounts for change, multiplicity of levels of action, and the temporal evolution of the interactions. This resonates with a process approach to organizational phenomena with a focus on developing a knowledge of “how to produce desirable changes” that evidence from variance theories suggests (Langley, Smallman, Tsoukas, & Van de Ven, 2013). Therefore, following the arguments about linking brokerage micro processes, including its catalysis role, to macro outcomes, a process view allows building this connection by exploring how such macro outcomes emerge as a result of progressive chains of events, brokerage actions, and their interactions over time.

Furthermore, going beyond studying brokerage as a structural pattern in which a third party connects otherwise unconnected parties to include the social behavior of the third party, i.e. “brokerage processes”, is discussed as important in “increasingly complex and dynamic environments where brokerage behavior is highly varied, intense, and purposeful” (Obstfeld et al., 2014). This is the case for studying how brokerage by means of expanding interorganizational networks drives change. To achieve intended collective benefits, brokers can adopt a variety of brokerage activities, and a processual view can capture a full portfolio of brokerage possibilities. In conceptualizing brokerage with a process lens, Obstfeld and colleagues redefine three forms of brokerage processes or strategic orientations—conduit (passing of information and other resources between parties), *tertius gaudens*, and *tertius iungens*—and propose that brokers may adopt any combination of these behaviors for different intentions (Obstfeld, 2017; Obstfeld et al., 2014). For this reason, these authors call for deeper consideration of the brokerage process

to understand the outcomes in cross-level and interorganizational contexts (Moliterno & Mahony, 2011).

Among further improvements of structural variations proposed by Gould and Fernandez (1989) to include the processes and dynamics of brokerage by network scholars, there are similar calls for re-conceptualizing with a process lens. Spiro, Acton, and Butts, (2013), using a process lens on brokerage, proposed three distinct classes of brokerage behavior: transfer, matchmaking, and coordination. While these categories still put emphasis on the position of the broker in relation to other parties, behavioral differences are suggested to be key in network outcomes. In transfer brokerage, brokers redistribute information or other resources from one party to others who cannot be directly accessed. This behavior is similar to the classic image of the “middleman” who stands in between to transfer some valued resource across the network. In matchmaking brokerage, the broker introduces one party to another or makes the formation of a new tie possible. This behavior is similar to the connection building of *iungens* brokers. In coordination brokerage, according to Spiro et al., the broker influences and directs parties’ actions to reduce their dependencies on one another. This happens when tie formation is costly or not feasible between parties.

Building on this stream of the literature and using a process lens, I explore the role of a brokerage organization in achieving systemic impact. I look for different brokering behaviors that include both mediation and *iungens* mechanisms and, more importantly, their consequent mechanisms that enable transformation at the macro level. These consequent processes may happen as a result of brokerage micro processes over time or interactions in other parts of the network.

2.3.4 Literature Gap

In sum, three interconnected gaps are presented here. First, the current theoretical understanding of brokerage lacks a clear distinction between the processes and outcomes of different brokerage orientations. A common approach views brokerage with a dichotomized lens, attributing the intermediation behavior of brokers to self-interested intentions and individual outcomes but matchmaking and catalysis to communal benefits. However, wide-ranging implications of the brokerage concept have encouraged a more complex conceptualization of brokerage. Therefore, with a process view, we can provide a wider array of brokerage processes that clears the ground for cross-level outcomes.

Second, as discussed above, although catalysis is explained as one of the processes through which brokerage leads to macro-level outcomes (Sgourev, 2015), we have a limited understanding of how brokers who stand between stakeholders from *different sectors* and have communal interests manage to mobilize actions and support for collective change. This inquiry speaks to the third gap in the literature at the same time, which is the absence of a process-based view of brokerage. Examining these gaps has a high theoretical and pragmatic value. Theoretically, exploring the pathways of brokerage processes resulting in broader-level benefits enables us to identify brokerage roles in the contexts where hierarchies and institutions are not in place for a collective outcome and network outcomes are the result of the long-term evolution of a network and the brokers in interaction with each other. Pragmatically, this understanding can be applied to develop policies and supports that encourage the rise of brokerage organizations, which are key to system-level transformations such as the creation of socially-oriented markets in response to societal problems.

To address these literature gaps, I aim to explore the role of a strategic bridging organization in forming broader social benefits. To this end, while using the interorganizational conception of brokerage with a process lens and highlighting the behaviour of the brokerage organization in the network, I stay fairly open to allowing different brokerage behaviours in my analysis. In the qualitative study presented in Chapters 3 and 4, I follow the history of emergence and activities of a strategic brokerage organization that not only demonstrates *iungens* brokerage practices but also goes beyond by benefiting the ecosystem by exemplifying an innovative market initiative that crosses the boundaries of different stakeholders. Therefore, I contribute to the emerging line of research on brokerage that focuses on the relationship-enhancing orientation of brokerage (Obstfeld, 2005), while allowing for a complex array of brokerage behaviours with the process view (Obstfeld et al., 2014) for collective outcomes (Sgourev, 2015). I extend the conception of brokerage so that it allows for brokerage to continue to work within a closed network (Collins-Dogrul, 2012) by demonstrating how a broker becomes a significant part of an innovative solution, and I propose a new type of connection between market, community, and public actors within a system.

2.4 Analytical Framework: Brokerage and Systemic Impact

In exploring the role of brokering organizations, I ask: How do strategic actors in a network mobilize resources, support, and action to address a social problem? For this question, I emphasize the role that bridging organizations play in stimulating change at the network level. Two key theoretical building blocks of my analytical frameworks are brokerage and macro-level benefit. Below I discuss how these two are conceptualized and create this study's analytical framework.

Brokerage: I adopt the broadened reconceptualization of brokerage by Obstfeld et al that puts emphasis on process and the social behaviour of brokering (2014). As these authors discuss in detail, since brokerage can occur in varied structural contexts and because of the separation of brokerage motivation and opportunity, which were conflated in previous considerations, a new definition of brokerage can shift the focus toward social processes that unfold regardless of the network's structure. Starting from the classic definition of brokerage as a process in which "intermediary actors facilitate transactions between other actors lacking access to or trust in one another" (P. Marsden, 1982), Obstfeld et al generalize this definition to "behavior by which an actor influences, manages, or facilitates interactions between other actors" (2014).

As discussed earlier in the brokerage literature, there is a confusion of intentions, mechanisms, and outcomes when finding brokerage in various settings. To clarify this, as the first step, I develop a schematic to demonstrate that the intentions, mechanisms, and outcomes of brokerage occupy a continuum as opposed to forming a dichotomy. Figure 1 illustrates this schematic while referencing the scholars who used different terminologies to denote various brokerage mechanisms.

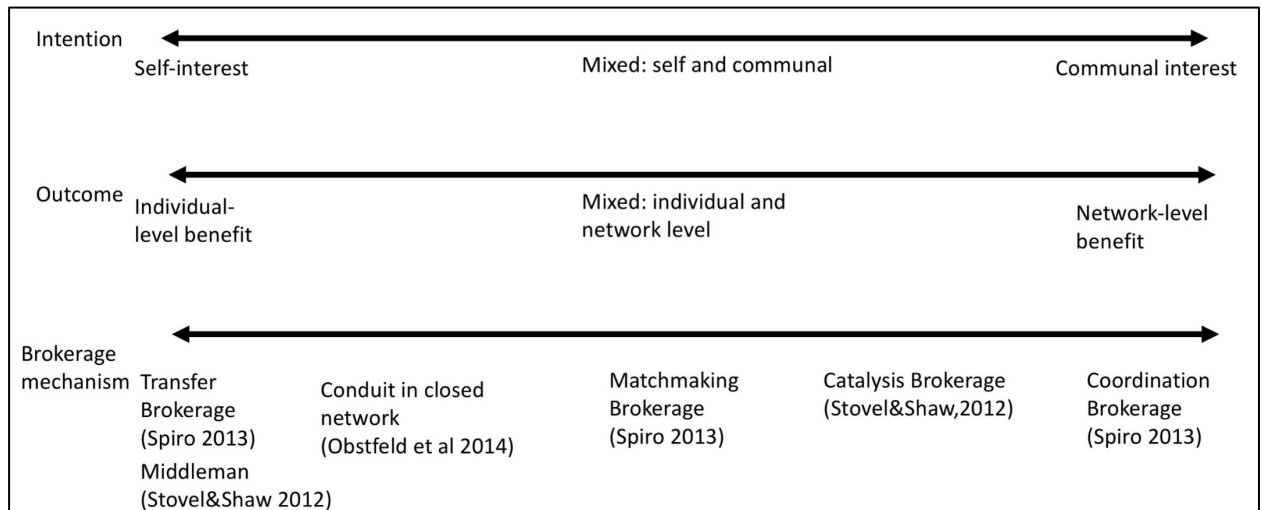


Figure 1- Brokerage intentions, mechanisms, and outcomes spectrum¹

Using the schematic drawing of intentions, outcomes, and mechanisms in Figure 1, I would like to prompt some lines of thinking about brokerage and the shortcomings of the literature in addressing them. First, in conceptualizing brokerage, the notions of why a broker conducts a particular activity, what exactly that activity is, and what the consequences are have been address interchangeably. Therefore, the second association of particular brokerage actions and outcomes is taken for granted: self-interested brokers act mostly as middlemen to reach individual-level goals, and actors with communal interests make group-level outcomes possible mostly through catalysis. By separating these three aspects, we can elaborate the range of possibilities that may arise from particular brokerage mechanisms. Particularly, in the case of outcomes that are at the broader level than individual brokers, allowing for any form of brokerage enables us to explore other possible mechanisms in place. Second, as I have highlighted, there is a range of brokerage activities from transfer of valued resources, to connecting separate parties, to enhancing the quality of relationship in already existing

¹ Source: Elaborated by the author

connections. These same brokerage mechanisms are referred to with different terminologies by scholars. While boundaries between some of the brokerage mechanisms are blurred, I summarize in Table 3 the brokerage mechanisms discussed in the literature, their definitions, and how scholars refer to them using different terminologies

Table 3 - Brokerage mechanisms spectrum²

Brokerage mechanisms	Definition	Scholar
Transfer brokerage	Broker conducts information or other resources from one alter to another who cannot be directly reached.	(Spiro et al., 2013)
Conduit brokerage in open network	(In the absence of previous ties) the broker transfers information, knowledge, or other resources between parties, and they have no prospect of meeting.	(Obstfeld et al., 2014)
Middleman brokerage	Broker facilitates flow of goods, resources, and information. Brokerage remains in the middle and transacting parties do not come into direct contact.	(Stovel & Shaw, 2012)
Classic view of brokerage	Broker facilitates transactions between other actors lacking access to or trust in one another.	(Burt, 2004; P. Marsden, 1982)
Conduit brokerage in closed network	Broker facilitates transfer of valued resources between parties and may help synthesize new knowledge. A tie may exist between the parties.	(Obstfeld et al., 2014)
Match-making brokerage	Broker facilitates tie formation between third parties.	(Spiro et al., 2013)
<i>lungens</i> brokerage in open network	Broker introduces one party to another when the parties have no prior tie.	(Obstfeld et al., 2014)
Catalyst brokerage	Broker builds new connections and facilitates coordination between parties. This can change the frequency of interaction among other actors.	(Stovel & Shaw, 2012)
<i>lungens</i> brokerage	Broker connects people in a social network by either introducing unconnected individuals or facilitating new coordination between connected individuals and introduces or facilitates preexisting ties between parties so that the coordinative role of brokerage subsequently diminishes (brief <i>lungens</i>), introduces or facilitates interaction between parties while maintaining an essentially coordinative role over time (sustained <i>lungens</i>).	(Obstfeld, 2005)
Classic <i>tertius lungens</i>	Non-partisan actor helps create or preserve group unity.	(Simmel, 1950)
Coordination brokerage	Broker allows third parties to act without creating a direct relationship. Broker directs actions by two parties so as to resolve their dependencies without need of direct contact.	(Spiro et al., 2013)

² Source: Elaborated by the author

In Table 3, I have grouped the mechanisms according to the brokerage action, i.e. what the broker does regardless of his intention or potential outcomes. While these are different terminologies, the mechanism through which brokerage creates value is similar in each group. Transfer, conduit, or classic brokerage formulate the broker as a middleman with a focus on transferring resources and facilitating transactions among others (Spiro et al., 2013; Stovel & Shaw, 2012). Matchmaking and one aspect of *iungens* brokerage highlight the connection-building role of brokers in introducing parties to each other or simply facilitating tie formation (Obstfeld, 2005; Spiro et al., 2013). Catalyst terminology and also *iungens* brokerage in its broader sense refer to enhancing the quality of relationships (Obstfeld, 2005; Stovel & Shaw, 2012). Coordination is a term used to point specifically to the role that a broker may play as a coordinator without connecting parties with each other (Spiro et al., 2013).

In contrast to dichotomizing the brokering behaviours into middleman and catalysis, for the study of brokerage and systemic social impact, I remain flexible in the possible ways in which brokerage can create value, since a more detailed range of brokerage behaviours can be found in the literature. This lens once again brings forward the importance of looking at the processes that a brokering actor gets involve in. These processes range from mere transfer of valued resources while parties do not come to interact, to facilitating transfer of resources while parties may interact, to building new connections to help parties sustain their relation, to working with parties separately to make a bigger goal happen. These illustrations help me in moving forward with the qualitative study on brokerage, for they broaden the lens for collecting the data and analyzing it to find brokerage processes.

Macro-level outcome: While brokerage can have significant network-level impacts, we lack an understanding of the processes by which brokerage practices lead to macro-level outcomes. This is valuable particularly in contexts where the macro-level outcomes have collective and social value, such as transforming arrangements for a social mission. Therefore, I define the macro-level outcome as a social impact that goes beyond a single or a small adjacent network of organizations. In the case of societal problems, systemic social impact means outcomes that benefit a stakeholder's portfolio while creating grounding for sustainable transformation. This macro-level social benefit can be in the form of new social and economic developments that are at a higher level than an individual organization or a group of organizations. Market projects with social goals represent one such macro-level outcome. While I keep the macro-level outcome construct fairly broad conceptually, in my inductive attempt to explore the brokerage processes toward systemic outcomes, the formation of socially-oriented markets is one prospective system-level benefit.

Creating new socioeconomic arrangements, as in the case of markets with social impact, is a potential candidate for a macro-level outcome. The presence of multiple stakeholders and the need for bridging the social gaps in market creation projects call for brokering behaviour by certain intermediary actors. In the classic definition of brokerage, brokers intervene to facilitate the flow of goods or information over gaps in the social structure. Therefore, in situations where information distribution is poor, information is difficult to interpret, or transactions are complex, there is a high opportunity and demand for the rise of brokerage (Stovel & Shaw, 2012). This is the case when hierarchies, markets, or institutional environments are poorly developed.

Therefore, in this sense, brokerage is, by definition, key to the creation of markets in contexts where already existing arrangements are not sufficient to resolve a social problem.

Besides, the emerging view of brokerage as *iungens* has implications for markets and the collective action around them. Markets are a means by which unconnected and isolated stakeholders (i.e. sellers and buyers) find one another and interact socially and economically in a sustained manner. This function is at the heart of *iungens* brokerage (Khurana, 2002; Pollock, Porac, & Wade, 2004). Consequently, matchmaking and *iungens* brokerage orientations are by their nature key mechanism that are present in the emergence of markets.

As discussed above in relation to market creation challenges, markets that act as means to tackle societal problems differ from regular commodity markets (B. Lee & Georgallis, 2018). It was explained that market creation in the context of social problem-solving poses further challenges. First, there is high supply and demand uncertainty in these markets, as the practices are new to both suppliers and consumers and some level of behavioural change is needed on both sides. Second, common structural deficiencies in the existing markets call for the rise of markets with a social orientation. Therefore, a lack of market infrastructure for channeling goods and information is another characteristic of these markets. In addition, multiple groups of stakeholders and their interdependencies pose a critical challenge for the market creation process. Bringing stakeholders together and organizing their interactions and relationships are the key problem; and for this reason, one can expect to observe an array of brokerage processes from the catalyst-middleman spectrum in such markets.

By conceptualizing markets as composed of both catalysis and middleman activities, a good portion of market interactions can be captured in the context of social problem-solving, and this

is what is absent in competitive models of the market (Obstfeld, 2005). Interestingly, the catalyst role of brokerage was also discussed as key in matching supply and demand for novelty in the case of the *Ballets Russes* (Sgourev, 2015). This match between supply and demand sides is key to the formation, recurrence, and sustainability of markets over time. To explore the role of brokerage organizations in achieving macro-level outcomes in addressing social problems, the promotion of socially-oriented markets can be used as an example of such broader level outcomes. By conceptualizing brokerage at the interface of micro-level practices and macro-level outcomes (Sgourev, 2015), I will look for inter-level processes that connect brokerage mechanisms with those outcomes. Figure 2 illustrates the conceptual framework that guides my empirical study.

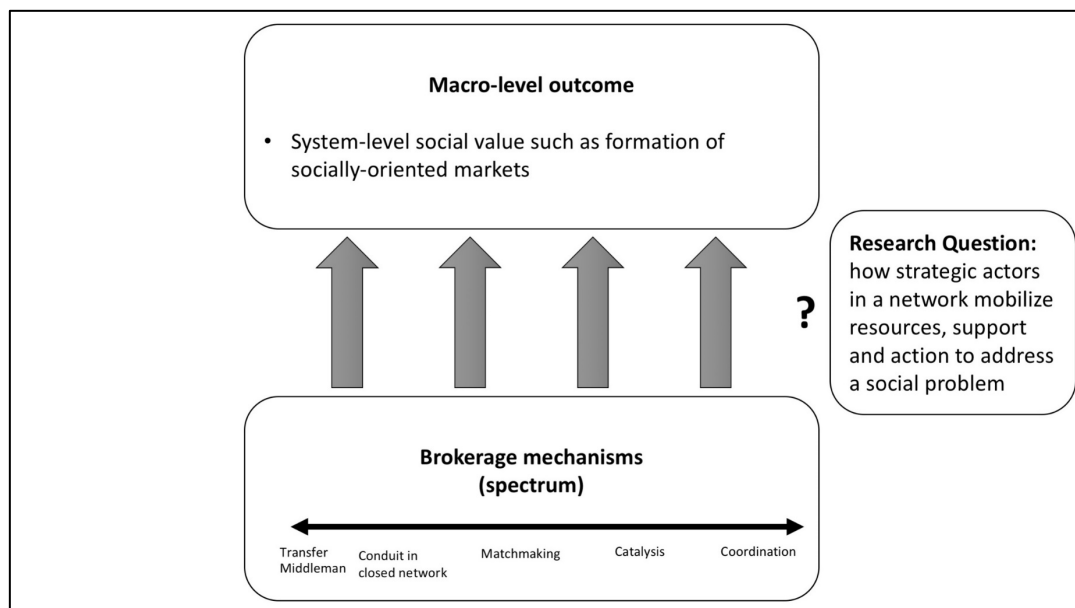


Figure 2- Conceptual Framework

Chapter 3 Methods and Setting

3.1 Chapter Summary

This chapter provides an overview of the research setting and methods for the qualitative study on brokerage and systemic impact. This chapter begins with the research strategy and the reasons why an inductive qualitative case study is suitable to address the question: *How do strategic bridging organizations transform existing socioeconomic arrangements for systemic social impact?* Following that, an introduction of the search context, including a brief history of the organization and its surrounding food network, is presented. Next, a summary of the field work and data collection that I conducted using the inductive qualitative approach (Patton, 2002) is described. The chapter ends with a report on data analysis strategies and the considerations to ensure research quality standards. It should be noted that the approach for mathematical modeling for emergence of socially-oriented markets is presented in Chapter 5.

3.2 Research Strategy

Two characteristics of the phenomenon under study and the research question I am asking guide the overall research approach. First, theorizing about the systemic impacts of brokering actors in the brokerage literature, particularly in the context of societal problem solving, is in its early stages. The literature lacks a comprehensive theory to explain the role of brokerage organizations in the emergence of network-wide and communal outcomes. In this sense, a method for a less-known phenomenon (Eisenhardt & Graebner, 2007) will be suitable. Second,

the question of brokerage and macro-level benefits requires an approach that enables studying the processes and interactions of events and actions across levels (Bizzi & Langley, 2012). This is because the systemic impact of a brokering actor as a phenomenon temporally unfolds over time and as a result of an interrelated set of actions by the organization and the other actors in its network. Since we seek to study a less-known phenomenon, we need an approach that gives enough flexibility for exploring the involved processes. At the same time, the dynamic and interactional nature of the question of brokerage for creating impacts requires an approach that allows for following these interactions and events over time. For these reasons, an in-depth qualitative inquiry with longitudinal elements is particularly suitable to capture how the brokerage impact evolves over time (Bizzi & Langley, 2012; Graebner, Martin, & Roundy, 2012). A qualitative approach allows for rich description and induction supported by anecdotes to produce a nuanced contextualized account (Lincoln & Guba, 1985). At the same time, using an inductive lens provides an openness and flexibility to let theory emerge from the interplay of analysis and data collection (Charmaz, 2006).

I use a qualitative embedded single case design for this study. A case study design with a longitudinal lens is beneficial for exploring the dynamic processes involved, as micro brokerage behaviors lead to macro-level impacts. This design provides the opportunity to collect rich descriptions of interactions, patterns of behaviors, and processes across multiple actors and levels of action, which enables inquiry about a less-understood phenomenon (A. L. George & Bennett, 2005). Applying the historical lens to the case brings forward the centrality of time and how the progression of events and activities enables identification of particular theoretical mechanisms allowing for longitudinal replication (Langley et al., 2013).

I conduct an inductive case study (Yin, 2003) of Canada's largest food security organization and non-profit food hub, called FoodShare Toronto. The organization was founded in 1985 in Ontario, Canada, with the aim of providing affordable healthy food for all. Over the past three decades, FoodShare has pioneered innovative programs for food access and food education across the city and province, with numerous replications across the country. From 1 to 60 staff members and from \$30K to nearly \$7 million in revenue in 2016, the organization has scaled up successfully to build a network of partners tackling different aspects of the food security issue in the province.

The case of FoodShare and its well-known market model was selected by using a theoretical sampling approach (Eisenhardt & Graebner, 2007). This organization, its portfolio of programs, and surrounding collaborators provide an interesting research context for the current study for various reasons. First, food is at the nexus of many societal issues, such as health, equity, and agricultural sustainability, even though it is produced and consumed mostly through commercial markets. This makes food security and food markets an interesting case of inquiry on which different brokering processes can have significant influence. In the case of addressing food problems, a large number of initiatives operate in isolated silos and, in many cases, fail to scale to deeper levels of impact across the system (Johnston & Baker, 2005). This is because no single actor can transform the food system and the collectivity of stakeholders needs to become involved (Beckie, Kennedy, & Wittman, 2012). Therefore, systemic impact necessitates extensive collaboration, communication, and capacity building among actors and alignment of strategies across the network. In this sense, the role of brokerage organizations is highly critical in stimulating effective change. Initial familiarity with FoodShare's history and its growth trajectory

to become the largest food security nonprofit in Canada suggested the organization and its surrounding network as a potential setting for exploring brokering processes. FoodShare started as a local government initiative in the late 1980s. In the 1990s, it went through a major shift toward a market approach to solving food security in the city, which broadened the organization's interactions to encompass a wide range of public, social, and market actors. This unique background in the food system through engaging with a diverse set of stakeholders over the years makes FoodShare an interesting subject for observing potential brokering processes in the food network.

Second, FoodShare combines a portfolio of initiatives for target communities through efforts to develop a unique market model. FoodShare's unique market program, which connects the province's industrial food hub and local farmers with underserved communities, attempts to simultaneously create economic and social value for both the farmers and the target customers. To create and advance this program over the past two decades, FoodShare has become actively engaged with public, community, and market actors and has migrated from a single-initiative organization into a platform for bringing a portfolio of initiatives and actors together. Therefore, it provides a rich setting by being an organization with a wide range of initiatives across the network with a potential for systemic impact. This case represents an extreme case in terms of success and influence on its surrounding network, as it is the largest and the best-known food security organization in Canada for its market-based approach to food security (M Classens, McMurtry, & Sumner, 2014; Michael Classens, 2015). Its market model when it started in the 1990s was one of a kind, as described by scholars; it was a business with a clear social mission that was not like "the charitable tradition" of the time (Welsh & MacRae, 1998). FoodShare

started its famous market model with 40 boxes and a few hundred dollars in sales, but this number reached more than 25,000 boxes and sales of a few million dollars in 2017. For food system scholars, FoodShare's programs, particularly the market-based ones, have been successful over the years (Johnston & Baker, 2005). Overall, being an extreme case in terms of number of programs, interactions, and relative success, FoodShare is ideal for building theory, as we can find processes that are less likely to be present in less extreme cases (Yin, 2003; Pettigrew, 1990).

I follow the historical data for the selected number of FoodShare programs as the embedded units of analysis within the case (Yin, 2003). The embedded units of analysis are these programs and the organization's interactions with other actors around them. I study the evolution of these programs through a processual approach to trace the events, the organization's activities in influencing other actors' interactions, and the evolution of FoodShare's programs over time. This allows for developing a theory for connecting micro-processes to broader outcomes (Langley et al., 2013; Langley & Tsoukas, 2017). Therefore, I use longitudinal replication rather than cross-case replication to pursue the occurrence of intervention models by FoodShare and brokerage roles as they progressively unfold in successive time periods (Langley et al., 2013). In this sense, I look for similarities and differences in the organization's patterns of influencing the network over the time periods to draw a dynamic conclusion about the brokering mechanisms that evolved and led to a system-level impact. By providing a thick description of the evolution of FoodShare's programs and interactions over time, I attempt to demonstrate the "temporal coherence" of the dynamics involved (Pettigrew, 1997).

3.3 Research Setting

FoodShare Toronto defines itself as “an innovative non-profit food distribution hub and a community food education center, working with a network of like-minded partners” towards “a resilient, just and sustainable food system” with the mission of “good healthy food for all”. While FoodShare was founded as a nonprofit organization, the organization combined a combination of community-based and market-based initiatives while bridging public, community, and market actors. After the first few years, the organization moved away from food emergency programs. FoodShare’s founders started a portfolio of programs with a market model for affordable food provision, particularly in underserved communities in the late 1990s, which grew into one of the most successful models in Canada and was replicated across the country (Johnston & Baker, 2005). The program was initiated in 1994 as a local access program called the “Good Food Program”. This program, which has undergone various forms over the years, connects directly the industrial food hub in Ontario and small-scale farmers with vulnerable communities through FoodShare’s warehouse to ensure accessibility of affordable fruits and vegetables in underserved neighborhoods. Ever since, FoodShare has developed into a food hub within the existing industrial food system by interconnecting networks of distribution and community building through connecting with other community-based food organizations and agricultural food hubs. With numerous programs and initiatives in community access, education, school food, urban agriculture, and multiple market models, FoodShare has moved beyond the city level and has helped numerous organizations to replicate this model in the region.

I explore FoodShare’s portfolio of programs with higher emphasis on its pioneering market-based program in Canada, the “Good Food Program”. This program is placed at the nexus of social

impact and creating a new market arrangement. At the core of this model, smallholder farmers and producers and the industrial food hub in the province are connected to underserved urban customers. By shortening the supply-chain, FoodShare eliminates the middlemen and provides an affordable produce offering for the target communities. While the model operates in a non-profit organization supported by social sector arrangements (e.g. hundreds of volunteers at FoodShare's warehouse and across the city), in terms of the offering, it is exactly a business that is creating a new arrangement between producers and consumers. This multiplicity of actors from market, social, and even public sectors makes it interesting to see how this solution from the social sector has found its way into the worlds of consumers while having interfaces with the conventional industrial supply chain. The Good Food Program has taken different shapes over the years, including Good Food Box, Good Food Market, Bulk Sales, and the Mobile Market. The Box program sells high quality produce at reduced prices to people of all incomes through community drop-offs run by community volunteers. In the market model, the same produce at a reduced price is delivered to community organizers who then operate their community markets in targeted neighbourhoods. The community organizers can be as diverse as post-secondary schools, residential buildings, churches, or hospitals. Through the Mobile Market, FoodShare sells produce through retrofitted buses in eight population-dense neighbourhoods. Using the same infrastructure as the Bulk program, produce is sold to institutions, such as schools and other agencies, for healthy food programs.

By selling produce at more than 200 Food Box drop-off points (i.e. 26,000 boxes per year), supporting 45 Good Food Markets across the city, selling bulk produce to more than 250 schools and agencies, supporting 42 gardens, animating more than 800 student nutrition programs, and

with 1300 community-led food initiatives, the organization exemplifies a bridging organization with impacts across the food system in the province (FoodShare, 2017). Figure 3 illustrates FoodShare's theory of change, highlighting its impact on different aspects of the food system. FoodShare's theory of change was developed as part of the organization's strategic plan for 2016-2018. While this is a recent articulation of FoodShare's own perspective on its impact in the food system, it represents well its different areas of work and the paths to creating impact (FoodShare, 2016). The theory of change at FoodShare was created through a process of self-reflection and retrospective analysis of the organization's work since its initiation. As can be seen in the figure, the organization's long list of programs and initiatives can be summarized into four major imperative categories: demonstrate, animate, train, and advocate. Demonstrate activities include proposing new models to the food system that introduce a new arrangement within the food network. The Good Food Program as FoodShare's best-known program and innovative market model belongs to this category. Animate activities involve working closely with on-the-ground community organizations to develop initiatives within neighbourhoods. Through these activities combined with training customers and advocating for policy change, FoodShare at the first level is able to generate direct impacts, including access to affordable produce, awareness, and empowerment of community initiatives. More importantly, beyond direct outcomes, the organization model is a potential systemic solution that can influence different aspects of the food system, including local and resilient production, consumption, access, community capacity and awareness, which all reinforce each other in a reinforcing feedback loop.

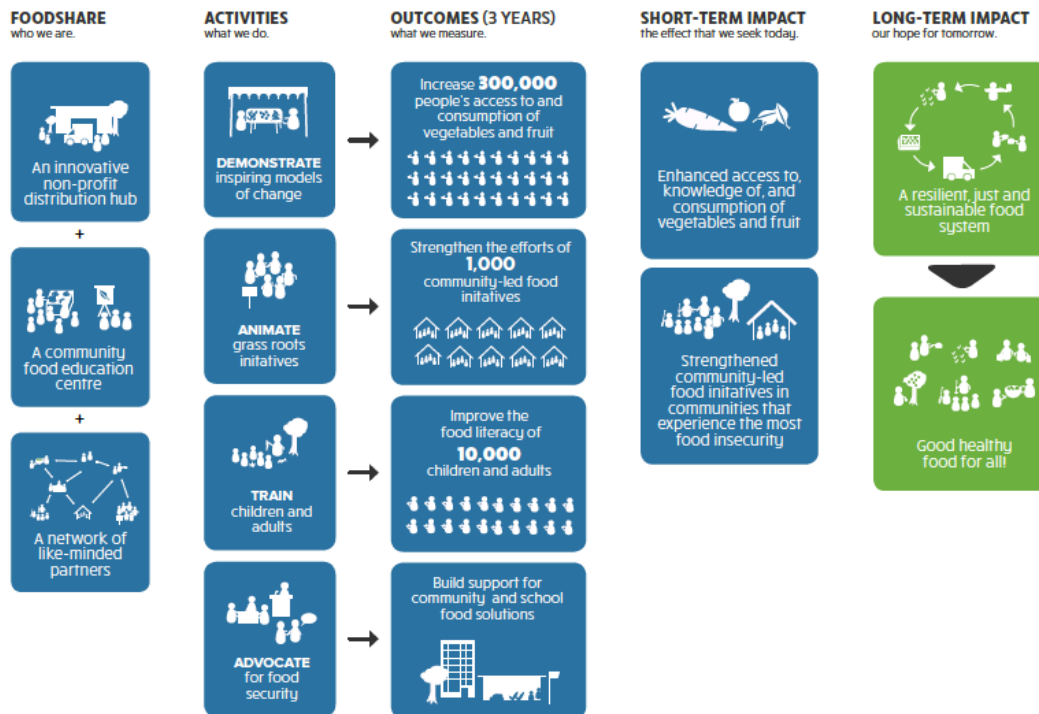


Figure 3 - FoodShare's Theory of Change (Organization's Strategic Plan 2016-018)

3.4 Data Collection

3.4.1 Initial Exploratory Fieldwork

I began my exploratory field data collection by attending food system conferences, assemblies, local food policy work sessions, and food initiatives' demonstration tours, starting in the fall of 2015. Through these participant observations, I achieved two goals. First, I developed a general understanding of the food security problem in the country and region; current debates; involved stakeholders from the public, private, and social sectors; and the ongoing undertakings in this context. In this process, I learned about the organization as one of the most influential actors in the regional food system in the province of Ontario and in Canada. Second, I collected initial data about FoodShare, its allies and other collaborators in the food network, and its interactions with other active organizations. This particularly occurred during two international

conferences on the topics of “Food security” and “School Food” in 2015 and 2016. I also attended public tours in Ontario’s food network as well as seminars and discussion groups on food security topics to better understand the key actors and the role FoodShare plays in this network. At these conferences, key actors in the field of food, including representatives from businesses, government organizations, community organizations, nonprofits, and activists, were present. These initial observations and informal interactions with people in the field enabled me to observe “what is happening in the setting and make a conceptual rendering of these actions” (Charmaz, 2006, p. 22).

Apart from these occasions, I had a chance to better understand other global innovative models of addressing food security through market initiatives by getting to know two successful innovative models in India and the US. I attended a conference in the US hosted by one of the leading food access NGOs called Wholesome Wave with a nation-wide model for provision of affordable fruits and vegetables through working with farmers’ markets and grocery stores as well as consumers. Developing an understanding of Wholesome Wave’s double-coupon program, which is an innovative market arrangement that provides incentives for produce outlets and consumers for higher fresh produce consumption, was very insightful in comparison with FoodShare’s model as well as for a later study of market emergence that is presented in Chapter 5 of this thesis. I also joined a work session hosted by a successful social enterprise in India that has an innovative model of eliminating the middleman to increase benefits for both small-scale producers and vulnerable consumers. To get closer to the phenomenon of how non-profit actors use a market-based approach to increase access to healthy food, I also volunteered in a community food-hub organization in Montreal during 2015-2016. Although these organizations

are working on different aspects of food access in different parts of the world, understanding their approaches to food security, supply chain, and use of market models to address food issues gave me a perspective on the use of a market lens to create social impact in food systems.

Overall, national and regional conferences and participating in presentations and panels and detailed field notes provided me with an initial understanding of the context in which my focal organization is operating. In total, I spent more than 128 hours familiarizing myself with various food access initiatives and market models as well as organizations' contexts. These initial interactions and presence in the field gave me the opportunity to engage with my study's setting and immerse myself in the domain of food security and programs that combine the social mission with market-based initiatives. On all of these occasions, I took extensive notes on the major debates as well as the challenges for inducing change. I also collected relevant materials, attended side events, and got involved with various stakeholders through informal conversation.

Following this exploratory field observation, during 2016-2018, I collected data on FoodShare, its programs, and its role in the network. A major portion of the data was collected through field trips in 2016 and 2017 with follow-up interviews in 2018 and 2019 during data analysis. The primary sources of data for this study are participant observations, semi-structured interviews, and archival data.

3.4.2 Observations

After gaining an initial familiarity with the field, I got directly involved with the organization and its network through participant observations, including multiple tours of the organization, its partners, and the communities the organization was serving. In addition, I spent two months

full time in the organization and its produce warehouse (regional food hub) as a volunteer and observer to build relations of trust with the organization’s members. I also visited different sites where FoodShare’s programs were running, such as the largest public school in the city that was buying bulk produce for a student nutrition program; a community weekly market in a residential building operating one of FoodShare’s 45 Good Food Markets; a year-round open farmers’ market that FoodShare has supported over the years; and an urban farm operated by a community organization supported by FoodShare. During all these visits, I took detailed notes about the context, the actors involved, and their interactions with each other. Table 4 provides details of a select number of these initial endeavors.

Table 4 - Data Sources (observations)

Data sources (Observations)	Hours	Total hours
Observations during exploratory fieldwork		
Conference: “Changing the Menu”, first national school food conference (2015)	16	
Coalition for Healthy School Food meeting (2015)	8	
Collective think round-table: “Next steps for food policy in Canada” (2015)	8	
Food Secure Canada’s 9 th national assembly (2016)	16	
Tour hosted by FoodShare: “A Tale of Two Neighborhoods”: Food Access and City Planning” (2016)	8	
Transforming Food Access Summit hosted by Wholesome Wave (US, 2016)	20	
Work sessions on Ektir social enterprise innovative distribution model in India (2016)	16	
Volunteering in community food hub in Montreal (2017)	16	
“FLEdGE: Food, Locally Embedded, Globally Engaged” research group (2017)	20	
		128 hours
Participant observation in the organization		
Observation and volunteering in FoodShare’s warehouse and office, field visits (2016-2017)	162	
		162 hours
Observations in program sites and other collaborators		
Urban agriculture tour hosted by Toronto Food Policy Council (2017)	5	

Largest public school in the city (2016)	4
Residential Good Food Market (2016)	5
Year-round farmers' market (2016)	3
Urban community farm visit and fundraiser event (2017)	5
Community centre partner (2017)	5
Good food market in an educational institution (2017)	5
	32 hours
Total Number of observation hours in the field	322 hours

3.4.3 Interviews

Semi-structured interviews were conducted with key informants from FoodShare and other organizations relevant to FoodShare's activities. Interview participants included current and prior managers, staff, and volunteers of the organization; representatives from community organizations working with FoodShare; organizations operating FoodShare's markets; program coordinators; representatives from municipal organizations; and food system experts.

In total 45 interviews were conducted during 2016-2017, with several final interviews in 2018. Of these, 42 were face-to-face interviews happening at the informant's organization or a preferred location in Toronto. The remainder of interviews were conducted through Skype. Participants were selected through snowball sampling. I asked each informant about the other organizations or individuals who are/were involved with FoodShare's programs and that could provide additional insights. Interviews lasted from 45 to 90 minutes and all were audio-recorded with participant's consent and were transcribed verbatim. The last three interviews occurred in 2018, after I had analyzed the data and focused more on the themes that I had observed in the data. During field visits, I also conducted several informal conversations with different stakeholders within and outside the organization. I took notes immediately after longer informal

conversations to complement my general understanding of different stakeholders' perspectives. The composition of the interviews' participants is detailed in Table 5.

The first 11 interviews followed a more fluid structure to provide broader understanding about the organization, its history, and its programs. The rest followed a semi-structured interview approach. Interview guides were prepared (Patton, 2002) and customized for different informant groups, such as FoodShare staff, community volunteers, community partner agencies, and government organization representatives. For all categories of participants some key questions were consistent across all interviewees. However, in keeping with the inductive approach, I remained flexible in letting the interview follow a different direction if the interviewee regarded it as relevant. The interview protocol contained questions regarding the organization's history, range of programs, interactions with different stakeholders, success and failure stories of bridging stakeholders, among others. In line with the research question on brokerage and impact, the questions around these two topics were consistent among all the interviewees. First, questions about brokering were indirect and mostly concerned the actors in the networks, the nature of their interactions with the organization, and, most importantly, FoodShare's influence on relationships across different actors. To get closer to the activities, during the interview I tried to ask for concrete instances that interviewees could recall. Secondly, different aspects of FoodShare's impact were a constant theme across the interviews with questions about the direct impacts of each program as well as the broader impact of the organization as a whole. The master interview guide, including excerpts from the interview protocol for different stakeholders, is presented in Appendix B. Having multiple respondents from different groups of stakeholders helped to enrich the reliability of the data, while

participants provided their perspectives from different angles, which ensured the validity of the theorizing (Eisenhardt & Graebner, 2007).

Table 5- Data sources (Interviews)

Data sources (Interviews)	Formal interviews	Informal conversations
FoodShare		
Managers and program directors	23	+10
Former staff	5	
volunteers		+10
Community organizations		
Representatives from community organizations	2	1
Food initiative locations		
Good food markets (Operating organization's representatives or community coordinators)	4	+5
Student nutrition program coordinators (Bulk Sale)	2	
Urban agriculture animation	1	
City and government organizations		
Representatives from Toronto Food Policy Council	2	3
Representatives from Toronto Public Health	1	1
Researchers and experts		
Researchers and Food system experts	5	+10
Total Number of interviews	45 formal interviews	

3.4.4 Archival data

Given the interest in the organization's history and the evolution of its approach and programs, I also collected documents related to the organization, its projects, and its partners. During my interviews and field visits, I frequently asked for internal documents that I could use to situate the events and initiatives explained by key informants, particularly those by former staff, and about the history of the initiatives. Documents in this category were mostly paper-copy and included internal reports, scattered meeting minutes, grants proposals, and funding statements. I also archived a large body of public documents, including annual reports, strategic

plans, news releases, published articles, and presentations authored by the organization or about the organization by other scholars. Since FoodShare is a successful organization with a history of close interaction with researchers, several formal and informal research materials were available about the organization

These documents had two functions in the data analysis process. First, I used them to map out the chronology of events, and actions taken by FoodShare or other actors, as well as a complementary source to the interview data about the interactions among actors for initiation and operation of programs. The time periods before 2000 for which I had less access to interview participants benefited from the archival materials very much. Second, the archival documents acted as my primary source for understanding the context in which FoodShare was operating in. Documents such as news releases or reports were useful for understanding the state of food issues in the city in each time period and how government and community actors were perceiving these problems. In total, 132 documents were collected. Table 6 presents the different types of documents collected for the study.

Table 6 - Data Sources (Archival Documents)

Data sources (Archival documents)	Number of documents	Total documents
Primary Documents		
Program evaluation reports	20	
Food security analysis reports produced by FoodShare	8	
Reports on Toronto's food system produced by other organizations	5	
FoodShare's presentations	15	
Foodshare's strategic plans	4	
FoodShare's history	8	
Annual reports	5	

Program description documents and executive summaries	23	
Guidelines and brochures for partner organizations	10	
Total		98 documents
Secondary Documents		
Research publications and papers on Ontario's food network	19	
News releases	15	
Total		34 documents
Total Number of Documents		132 documents

3.5 Data Analysis

3.5.1 Data analysis procedure

During the data analysis, I looked at the data as having two analytical units: the organization as a whole and selected program with the most indications of brokering behaviors. First, I observed the organization as a whole with its portfolio of programs as they were evolving over time. Second, I zoomed in on the programs that could best reflect the organization's brokering activities. For this reason, I moved across the programs in the organization over time and within a specific group of programs as they were chosen during the analysis. Therefore, the data analysis remained an iterative process moving between data analysis stages and existing brokerage theory to develop the constructs and their relationships (Eisenhardt & Graebner, 2007). The data on the organization's advancement and its brokering role complied with an inductive process. Therefore, I utilized strategies suitable for analyzing process data (Langley, 1999), combined with principles of Grounded Theory (Strauss & Corbin, 1997). In doing so, I organized the data both temporally (Langley, 1999) and through conceptual data structure (Gioia, Corley, & Hamilton, 2013) such as data relevant to public sector activities, market domain activities, and interactions with different groups of stakeholders, such as community organizations or smallholder farmers.

Data analysis progressed in four stages: 1) developing a detailed account of the organization's history and chronology of programs and initiatives; 2) forming rich narratives of key junctures, major lines of work, stakeholders, and key transformations by iterating between appropriate "temporal brackets" and "visual maps" (Langley, 1999, p. 3) inductive open coding followed by axial coding to pinpoint brokering processes; 4) combining temporal and conceptual data structures to develop a grounded theoretical model.

I began the analysis by developing a longitudinal narrative (Eisenhardt & Bourgeois, 1988) of the birth of FoodShare and its initiatives and their evolution from 1985 to 2015 (time period of the study). Using mostly archival data backed up by interviews with former staff, I chronicled major initiatives, the goals of each initiative, and their advancement into larger programs over the organization's life. I complemented this chronology with descriptive narratives about both the organization and the broader context by using detailed text files (exceeding 70 pages) and summary tables (see Appendix C for a shortened illustrative summary table). The goal of this stage was to order the data temporally to provide a big picture of the organization's life over the years. This stage provided the basis for the historical narrative that is presented in Chapter 4. I validated this historical account with available formal and informal research documents that reported a part of the organization's history.³

In the second stage, I pinpointed the timing of major programs and the organization's approach to the food problems to find the most appropriate temporal brackets so as to identify the unique characteristics of each time period and how it is connected and influenced by other

³ An example was a project to develop a brief history of the organization; it is publicly available on FoodShare's website: <https://foodshare.net/list/history/>

periods (Langley, 1999). I experimented with different lenses to characterize periods, including the organization's overall strategy, the stakeholders involved, and the emergence or termination of new programs. In addition to temporal bracketing, I used different visual maps to demonstrate key actors and interactions involved in each period. An illustrative working presentation of the organization's life phases through visual mapping is presented in Appendix D.⁴ Also, through an iterative process with the initial codes from the next stage of the data analysis, I identified major streams of work at the organization—the combination of programs in one line—that could best reflect the brokering activities of the organization.

In the third stage of analysis, I followed a structured coding approach to assess different activities that the organization deployed in its interactions with different stakeholders. I used *NVivo* software to code and access the data. Interview transcripts, field notes, and relevant archival documents were utilized. I engaged in a fine-grained reading of the data and open coding, as suggested in Grounded Theory (Charmaz, 2006; Strauss & Corbin, 1997). I remained fairly flexible in this part, allowing a large database of open codes to emerge in addressing a simple question: “What is this organization doing in relation to each stakeholder?”. I kept these initial codes close to empirics, using the language of data. Some examples of the organization's activities in form of codes include “hearing what customers need”, “mediating government funding to communities”, “making the conversation big”, and “making decisions with community”. Therefore, initial codes at this stage captured FoodShare's actions in particular situations such as in the code “building trust and relationship with local farmers”, FoodShare's

⁴ This visual mapping was not finally used in the presentation of findings and served as an input for developing the narrative and stakeholders' visual map presented in chapter 4.

behavior in relation to different stakeholders in numerous instances such as in the codes “proposing partnership with peer nonprofits” or “advocating for community projects to local government”, and FoodShare’s overall approach or culture over the years such as in the code “keeping flexible mandate”. In addition, an array of codes captured the data describing the context of the food issues and other organizations’ actions such as “social inequalities as root causes”, “city emphasizing role of civil society”, or “need for subsidized produce”. I also used temporal codes (e.g. “early 90s” or “first five years 1985-90”) to validate and expand the chronological details that I developed in the first two stages. These temporal codes were used to help match the FoodShare’s actions and the context’s characteristics with appropriate time periods.

I constantly examined this initial database to merge some codes, split others, or assess the interrelationships among them. I proceeded through this stage with axial coding and structuring data into aggregate and more theoretical dimensions (Corley & Gioia, 2011; Langley & Abdallah, 2015). The data structures presented in Chapter 4 demonstrate the outcome of this process.

In the fourth and final stage, I integrated the conceptual and temporal structuring of the data from the previous stages into a temporal explanation of a strategic actor intervening in different parts of a system for systemic impact. Given the richness of the data, I triangulated the data types when possible. In addition, at this stage, I conducted member checking (Charmaz, 2006) by sharing earlier drafts of the developed grounded model with two senior interview participants who had been with the organization for 15 or more years and who were familiar with its context. Their feedback and follow-up conversations helped to refine the model to better reflect the actual case.

3.5.2 Data analysis considerations, quality criteria, and tactics

A considerable amount of the collected data for answering the research question is by nature process data. Since I intend to answer how and through what processes brokerage organizations stimulate systemic change, events are key, and temporal embeddedness and multiple layers are the units of analysis. Therefore, I used many strategies specific to theorizing from process data (Langley, 1999). According to Langley (1999), sense-making strategies from process data fall into the three sequential categories of grounding, organizing, and replicating strategies. The data analysis described above combines these strategies with a structured coding approach. As mentioned, using narrative accounts (Eisenhardt & Bourgeois, 1988), I create a history of the establishment and evolution of FoodShare as a non-profit organization from its initiation in 1985 up to 2015. In the later stages of analysis, I use Grounded Theory strategy to develop data-driven categories that highlight the nature of the organization's brokering efforts. I summarize the emergence of different programs, while identifying the stakeholders that were added at each stage. In an iterative process, to build theories out of the organized data, I identify through temporal bracketing patterns of programs in the organization's life and develop "phases" (Van de Ven & Poole, 1995) by which the organization induced change.

To ensure the trustworthiness of this research, different techniques are used. Prolonged engagement, persistent observation, and triangulation are key to ensuring the credibility of the findings (Lincoln & Guba, 1985). I became involved with the setting in 2015 through volunteering, participating in multiple conferences and events, speaking with different stakeholders and building relationships with them. Apart from this, by consistently following the activities of the organization from the beginning of data collection and following news releases, the food

network's newsletters, and multiple field visits, I believe I achieved a trustful scope and depth in the data. I used multiple sources of data (interviews, field notes, documents) and compared different stakeholders' viewpoints (organization members, consumers, volunteers, community partners, local government representatives, etc.) to triangulate the data to ensure the richness of the narrative and the validity of the findings. In addition, member checking during and after the data analysis enabled me to examine the accuracy, adequacy, and overall credibility of the findings. The transferability of findings can be ensured through thick description of the field (Lincoln & Guba, 1985). In Chapter 4 I give a detailed narrative of the organization's programs and activities so that the reader may confidently evaluate whether the findings are transferable to other settings and times.

Chapter 4 The Case of FoodShare: A Brokerage Organization that Stimulated System-level Impact

“Networks are created by spiders, and we are all spiders creating networks. First, you grab onto something and swing out into the unknown on a thread until you find something else that you can grab onto. You connect with it and then climb back up to where you started and do it again. Then you move across to those two nodes and connect them. You keep repeating this process until there is a whole web. There are two things that are really important here. One is that the filament, the silk that the spider spins, comes out of her gut; the other is that it is stronger than steel. The strength of the network is the strength of the links we have built ... all of which, together, create that wonderful and beautiful mosaic that is our food movement.”

Kathleen Kneen (1944 - 2016), Social justice activist and founding member of Food Secure Canada⁵

4.1 Chapter summary

This chapter presents the empirical findings of the FoodShare case study. It covers the findings from inductive analysis of the qualitative data on the case in an attempt to theorize a grounded model connecting brokerage processes and systemic impact. As presented in Chapter 3, data analysis for the FoodShare case followed four steps of developing a detailed narrative of the organization’s life, iteration between temporal brackets, visual maps, and the narrative to pinpoint major events and lines of work to focus on for exploring brokering behaviors, open and

⁵ Quote available at Food Secure Canada’s website:
<https://foodsecurecanada.org/who-we-are/cathleen-kneen-award>

axial coding of the data, and finally combining temporal data and concepts drew from coding to form a grounded model. The chapter reports the results from these steps in detail.

Building on how brokerage actors are usually identified in the literature, I first discuss that behavioral aspects of FoodShare's activities are used as potential clues for classifying FoodShare as a brokerage organization. I start with providing a brief overview of the context in which FoodShare was born in 1985. By using a qualitative narrative, I present a detailed account of FoodShare's life accompanied by a summary of general trends in addressing food security over the years in Toronto, a major Canadian city in Ontario province. The narrative aims to provide temporal continuity as the organization's story dynamically unfolds over time (Pettigrew, 1997). According to suggestions about writing qualitative process research, one suitable option for writing the open inductive studies on new phenomena is inductive composition (Berends et al 2019). This approach includes recounting a chronological narrative that is not yet theorized followed by presenting a conceptual understanding to support theory development. In this way, all theoretical understandings, and a potential process model, are explained at the end of findings section (Berends & Deken, 2019). I follow an inductive composition approach in presenting my findings in this chapter. As suggested, I provide rich details in the narrative to "let the data speak" (Glaser, 1992) while simplifying the narrative in a stylized manner highlighting critical junctures to make it easy for the reader to follow.

Following that, I explain the temporal evolution of major stakeholders and two major lines of work in the narrative including market and community programs. I then present the concepts that emerged from open and axial coding. These concepts cover the mechanisms by which FoodShare got involved with different groups of stakeholders in advancing its initiatives toward

introducing impact into the food system. Concepts are discussed under two sets of mechanisms that are denoted as “mechanisms in the realm of public and philanthropic actors” and “mechanisms in the realm of market and community actors”. In explaining these concepts, I draw heavily on evidence from the data, including visual artifacts in the form of tables and figures as well as vignettes to convey my understanding of each concept. I particularly use empirical vignettes as a tactic to showcase specific stories illustrating a proposed concept to enable the reader to sense the field (Jarzabkowski, Bednarek, & Lê, 2014). In the final section of this chapter, I discuss how the identified brokering activities in community, market, and public spheres relate to each other and how through cycles of experimentation and implementation with different interventions, FoodShare moved forward with an improved model over time. Based on this understanding about the dynamic relation between the discussed mechanisms and evolution of organization’s model of inducing change, I present a grounded theoretical model that connects brokerage to creation of systemic impact as it unfolds over time.

4.2 How a brokerage organization can be identified?

FoodShare as a non-profit at the intersection of many public, community, and market actors with transformative efforts in food security context, can be a candidate for an organization with brokering orientation. In order to explore the potential reasons for FoodShare to be a brokerage organization in the network, we can draw from current understanding of the literature when identifying brokering actors. As discussed in Chapter 2, based on a summary of the brokerage literature (Halevy et al., 2018), the vast majority of existing models, while stressing the social structures and consequences of brokerage, pinpoint a broker actor as one that occupies a bridging position in a network. To the contrary, emerging models such as *iungens* theory

underscore social interactions as key to brokering that is defined as “the behavioral processes through which organizational actors shape others’ relationships” (Halevy et al., 2018, p. 2). Consequently, an actor can be verified as a broker either through occupying certain positions in a network or its social behaviors and interactions with other actors. In the former, the assumption is that being in a certain position generates opportunities for certain social behaviors that may involve brokering that has impacts on both the broker and the broader network. In contrast, the latter looks for behaviors and interactions that are consistent with brokering patterns conceptualized in the literature (e.g. Sgourev, 2015). However, while position can be a prerequisite (and an indicator of being a broker), internal and other contextual factors can also be responsible for adopting certain social behaviors. Given the aim of this research to explore brokerage processes, I relax the assumption that the position of an organization in a network is mere evidence of its brokering behavior. Instead, I explore the social interactions and behavioral patterns of the organizations as well as potential contextual and internal factors that give rise to the emergence of certain brokering roles.

In addition to the behavioral cues for the presence of brokerage, underdevelopment of markets, hierarchies, and institutions with poor information distribution across isolated actors increases the potential for emergence of brokerage mechanisms (Howells, 2006; Stovel & Shaw, 2012). Therefore, studying the context in which an organization with brokering behavior arises is essential to finding the underlying reasons for certain bridging strategies that an actor may adopt. For this reason, I first discuss below how food security exhibited a form of systemic failure in existing sectoral and market arrangements and consequently paved the way for emergence of organizations such as FoodShare with brokering behaviors.

4.3 FoodShare in response to failure in existing systems

Various forms of disconnectedness and suboptimal performance existed in the food market as well as public and social responses to food problems in Canada in the 1980s. While the industrial food market was on a growth path, it was failing to include underserved and marginalized customer groups. This resulted in an extensive inequality in access and affordability of healthy food in underserved communities across Canada and the province of Ontario. At the same time, public and social sector actors were falling behind in diagnosing and addressing different interwoven problems within the food system such as access and affordability, viability of local farmers, and the public health consequences of the broken food system (Koc, MacRae, Desjardins, & Roberts, 2008). Inefficiencies of market performance and absence of sufficient system development in food provision models were among the factors that gave rise to FoodShare's birth in the late 1980s and its brokering role.

Alarming state of the Canadian food system came to public attention in the late 1970s. Massive restructuring of Canada's agriculture sector caused a crisis for farmers as well as urban customers. Neo-liberal practices of the post-World War II era characterized a society with a privatized and deregulated economy, cross-border movement of goods, limited role of the state, and changes in the conditions of work, production, and consumption (Friedmann, 1993; Morgan, Marsden, & Murdoch, 2008). This economic reform in Canada, accompanied by an increase in unemployment and inflation, rise of housing prices, and decline of working conditions in farming and food production, led to serious threats to the sustainability of the Canadian food system in the 1970s and 1980s (Koc et al., 2008). In 1978, People's Food Commission, a collectivity of provincial and national organizations was formed and prepared a report, *The Land of Milk and*

Money (People's Food Commission, 1980), that raised serious concerns about the food system failure, food insecurity, and hunger in large cities across the country. This was the case in Toronto as one of the largest cities of the country.

Canada was not an exception in seeing the rise of industrial agriculture, in which production happens along the orchestrated linear chains dominated by a small number of large-scale corporations (Murdoch, Marsden, & Banks, 2000, Hendrickson & Heffernan, 2002; Hinrichs, 2003). As in other places around the world, emphasis shifted to production efficiency and use of modern agricultural technologies, leading to abundant produce volume (van der Ploeg et al., 2000). However, this production model, while building a commodity market around food, formed a food market that was (and still is) less concerned with equitable access by disadvantaged social groups and marginalized consumers (Giang et al., 2008; Godfray et al., 2010; Riches, 1997, 2002). Further to the food system failure in providing an affordable and accessible food market, public and social sector responses to this alarming problem were hardly efficient in the early 1980s. As reflected in high rates of hunger, food insecurity – i.e. access to healthy affordable food – which started as early as in 1970s remained one of the major challenges of the food provision and distribution in the food system across the country (Godfray et al., 2010; V. S. Tarasuk & Beaton, 1998).

Food banks as an immediate response of the social sector to the problem of hunger in Canada were launched as early as 1981 (Teron & Tarasuk, 1999; Wilson & Tsoa, 2002). Under the impression that hunger is a temporary problem caused by the economic downturn at that time, food banks continued to redistribute surplus food with support from non-profits and the food industry. Despite criticisms of food banks and other direct assistance programs for attacking only

the symptoms and failing to solve the underlying root causes—poverty and inequality (Poppendieck, 1998)—food banks gained a high profile in fighting hunger throughout the 1980s and 1990s (Tarasuk, 2001). However, the overall failure of this charitable model to fundamentally resolve food issues left a gap in the social sector for structural solutions to the misallocation inherent in the food system. FoodShare Toronto was among the first to create alternative models to fill this gap.

Along with the social sector, all levels of the government in Canada were failing to address the food problems, and it was believed that “institutional activities at the federal, provincial and municipal levels either ignored or were inadequate to address underlying realities” (MacRae, 1994). It was in this context that local governments including the City of Toronto and departments such as Toronto Public Health started to take a new approach to anti-hunger attempts and community programs to achieve long-lasting solutions. The presence of gaps in different sectors—e.g. inaction of public actors, inefficiency of social actors’ charity efforts, and lack of conventional market actors in addressing food issues—paved the way for the emergence of an organization like FoodShare in the late 1980s to respond to these failures in the food system.

4.4 Evolution of FoodShare and its innovative models

In this subsection, I present a historical narrative of FS’s life from its birth and the evolution of its programs as its different forms of interactions with various stakeholders unfolded over time. I lay out the story in four consecutive periods, each marking a pivotal juncture in FS’s life with the launch of a new model to simulate impact. In order to make sense of the emergence of the models in each period, I situate FS’s actions in the broader context of food security trends.

Following the narrative, I highlight two lines of works at FS, namely, market and community works, which will be the focus of data analysis for identifying brokerage mechanisms for systemic impact.

4.4.1 Period 1: FoodShare as a facilitator for charity approach to food insecurity (1985-1992)

Context:

In the context of urgent hunger, an initial response to the problem of food insecurity in the 1980s from the social sector was with a charity approach. In this sense, food banks were the first response by the civil society to end hunger by providing people in need with free donated food through support from philanthropists and the food industry (Koc et al., 2008). This charity stance was the dominant model for fighting hunger throughout the 1980s and 1990s. Charity approach means using the power of nonprofits to provide surplus food to the underserved neighborhoods. Foodbanks and direct assistance programs while were the frontline of fighting to solve household food insecurity, were criticized for only addressing the problem symptoms and not its root causes.

With a growing number of people in poverty in the City of Toronto, the Board of Health, a local board in the City, brought a report to City Council in 1984 pointing out poor nutrition among low-income and marginalized people. In that report, the Council was advised to take immediate and practical steps to improve access to healthy food among low-income people. One year later, in the fall of 1985, Toronto Mayor Art Eggleton, as part of his election campaign, presented the City's Executive Committee with a proposal entitled "FoodShare Toronto – A Concept to Help Fight Hunger in Toronto", to "rid Toronto of the absurd contradiction of hunger in the midst of

great prosperity”. In the proposal, FoodShare was introduced as a “special initiative”. In the mayor’s words:

“I am introducing, with those already involved in fighting the problem, a concept called Foodshare Toronto. It will be an information service and clearing house designed to direct people in need, as well as coordinate offers of donations and services from the community.” (Archives #91, #94a, #102)

The initial proposal from the mayor was a \$20K three-month pilot project, with a volunteer-based backbone to conduct a phone hotline to provide those in need with information on existing emergency food assistance programs around the city. The hotline service was also to put industrial and private donors of surplus food in touch with assistance programs and food banks. The City Council approved the proposal and allocated \$40K funding for an extended six-month period initiative. In discussing this proposal, there were some objections by progressive voices on the Council challenging this charity mindset and calling for more fundamental solutions. The following is an example of such an objection:

“We are not dealing with a one-time only emergency situation, like last summer’s tornado, which can be met by a volunteer drive or a fundraising event.... What we need are solid, permanent programs which will: Increase incomes of the working poor and those on welfare so that they are at or above the “poverty line”; Improve access to quality food supplies at reasonable cost; Help people to make better decisions on how to spend their limited food dollars.” (Archive #94b)

These councilors proposed a broader set of recommendations urging the City’s active role in different aspects of hunger. These recommendations ranged from pressing the provincial government to raise the minimum wage, to working with relevant departments on providing sites for community gardens, to incentivizing allocation of supermarket space in neighborhoods lacking them, to extending education and snack programs at schools. Among these, one recommendation encouraged the City to support creation of food cooperatives (food co-ops) and buying clubs. Here is that recommendation:

"[We recommend that] the City become a catalyst in the creation of food co-ops by providing vehicles for transportation of food orders from the Terminal Market to co-op distribution sites."
(Archive #94b)

This recommendation was among the early encouragements that set the stage for the City's support for FoodShare's good food programs, which emerged many years later.

FoodShare:

The initial proposed hotline initiative got space within City Hall, and a group of volunteers and a paid coordinator were allocated to it. The six-month initiative worked as a redistribution phone center redirecting people, food donors, and emergency assistance programs, i.e. food banks, to each other. In 1986, spearheaded by representatives from key hunger-fighting agencies, FoodShare was registered as an independent nonprofit organization with the mission of "good food for all". During its first few years in the late 1980s, FoodShare was a complementary service to existing charitable models organizing fundraising efforts and directing food surplus to existing food banks. FoodShare's mission was described as follows:

"Foodshare Toronto to function as a coordinating committee; such committee to reinforce existing relationships and systems for the acquisition and distribution of food, and to promote the continued involvement of agencies, churches, and volunteers, in providing supplementary assistance to individuals and families in need; and that in view of Metropolitan Toronto's past support for funding such a coordinating function, the Metropolitan Toronto Corporation be requested to cost-share in this effort." (Archive #94d)

Therefore, one of the early roles of FoodShare as a nonprofit organization was to coordinate donations and fundraising from private and philanthropic donors to support charity food distribution centers. An important example of this coordination role in FoodShare's history is the story below, which depicts FoodShare as a key actor in arranging redistribution of one million pounds of potatoes donated by a farmer to local food banks.

Vignette 1: In May 1986, a New Brunswick farmer approached Canada's food banks association with a donation offer of more than one million pounds of potatoes. The potatoes were otherwise bulldozed back into the farmer's fields in protection of pricing. One million pounds were allotted to Toronto (20 times larger than the amount for other big cities) as according to Food Banks Association's director as quoted in the Toronto Star "We're confident that Toronto can distribute tons and tons of food." According to FoodShare's chair at the time, FoodShare was coordinating five food distribution centers serving around 130 local agencies for receiving a major portion of this large amount. More than three other distribution centers in nearby municipalities were also coordinated to receive the potatoes and redistribute them to the agencies in their municipalities. FoodShare even managed to take truckloads directly to city housing projects and hand them out directly to people. Challenges were how to store and redistribute the potatoes that were coming by 10 train (car) loads. FoodShare representatives contacted facilities with refrigerators and mobilized hundreds of volunteers in these facilities to repack the potatoes. (Story covered by Derek Ferguson, Toronto Star, Archive #122)

Apart from this redistribution mission in its early years, FoodShare was also mandated to research root causes of hunger and the use of food banks to provide recommendations to City Council. Results of this research drew the government's attention to the complexities around the problem of food security and brought the role of FS and similar organizations to the forefront of government actions. Researching the root causes brought FS closer to communities, and FS started advocating for longer-term solutions.

In 1986, FoodShare was registered as a nonprofit organization with its own executive committee and leadership. Following that, in 1987, FS's first executive director proposed some reforms in the organization's funding structure that involved splitting operational costs between Metropolitan Toronto, the city of Toronto, and independent fundraising by the organization. In this way, FS continued working independently of the government as a distinct nonprofit with big visions for its work. This independence gave rise to FS's move in a new direction and beyond charitable approaches. This alternative approach was built on addressing root causes from a

systemic perspective, finding long-term solutions, working closely with communities, and innovating new models that would benefit multiple parts of the food system.

Although FS was launched with a charity-based redistribution approach, from its early years, the organization demonstrated its vision for systemic long-term solutions beyond charity. Inspired by systemic and sustainable solutions to food insecurity, FS experimented with some grassroots community development projects. In 1989, FS launched the “Food Action Project” by attracting federal and provincial grants. In this project, FS supported residents to organize visits to community gardens, organize bulk buying clubs, make trips to farmers’ markets and U-Pick farms, and community-run restaurants. This was the organization’s very first step with a community development approach. In these initiatives, using the grant money, FS organized events or made arrangements for seasonal buying clubs. In this sense, FS was testing ways that could move beyond mere coordination of food bank donations to coordination of community initiatives and bridging people within communities to leverage their buying power:

“When you read those [FoodShare’s] founding documents, they use the word clearinghouse [to describe FoodShare] to set up information and to talk to people. So, I think it’s in the [FoodShare’s] DNA, to network ... bringing people together who won’t know each other otherwise and helping them solve problems that they might not know about without FoodShare playing that role in the middle.” (Interview #43)

Summarizing period 1:

The context of the late 1980s in which FoodShare was born can be characterized in three aspects: urgent hunger and addressing it became critical; the City’s role turned out to be an ongoing discourse within local government and the first steps were taken by the City; and while emergency food programs were the dominant response, groundwork initiatives seeking long-term solutions were on the rise. FoodShare was one of these alternative modes of addressing

food security by starting to think beyond charity and targeting community involvement as the key first step to develop structural solutions.

In this early period, the organization was playing two major roles. Firstly, FS started working in an intermediary role through which excess food as well as donations were channeled between disconnected donors, local food assistance organizations, mostly food banks, and underserved clients. Its second role was utilizing governmental funding to organize grassroots projects or channeling grants to community groups organizing such initiatives. In this role, FS resembled a form of brokering strategy that is associated with conveying valuable resources across a network of actors. Apart from tangible financial capital that was being mobilized through this, FS was also an important arm for governmental organizations' understanding of the state of the problem on the ground. In this sense, in this period FS was acting as a conduit broker transferring valuable resources, including goods or services (e.g. food), knowledge (e.g. about hunger in communities), and financial supports (e.g. government grants). However, having responsiveness and creativity at its core, by piloting smaller community initiatives over these early years, FS was experimenting with potentials for the future directions of the organization.

4.4.2 Period 2: FoodShare launches social enterprise and incubation approach (1992-2000)

Context:

From the years around 1987, a group of academics and civil society leaders jointly laid out foundations for creating a municipal body to advise the city on food issues. As a result, in 1991, Toronto's Board of Health, a board of the City Council, created one of the world's first policy

councils. The Toronto Food Policy Council (TFPC) is a non-partisan advisory body comprising a very diverse spectrum of representatives from a variety of food system sectors:

“Food Policy Council is a citizen council, a citizen body of 30 members, plus 3 city councillors. And they are all citizen experts on a range of topics related to food in the city. They’re like the cutting edge, people who are in the field, from community groups, from entrepreneurs, from public health, university academics, all of that, who are all thinking about food issues.” (Interview #41)

The creation of the TFPC in the early 1990s was critical in two senses. First, it stimulated a multi-actor and multi-sectoral approach to the problem of food in the city. Diversity in expertise and sectoral structure were inherent in the foundation of the TFPC to reflect the multitude of viewpoints and values of stakeholders involved in the food system (MacRae, 1994). A key responsibility of this group was to advise the municipal government of Toronto⁶ by integrating different perspectives on food problems and preparing a comprehensive mandate for action. Members of the TFPC soon acknowledged the connectedness between agricultural, food, and health issues. This perspective was in contrast to the historical perspective of putting food issues and people working on those issues into distant sectoral silos. This perspective and its diverse membership enabled the group to facilitate creating linkages between community groups and the city’s political machine (MacRae, 1994):

“We need warriors, weavers, and workers to create a successful food system. A weaver would be organizations like the Food Policy Council. And they’re bringing everyone together in weaving and creating their bridges—or weaving the cloth, it’s just a metaphor—that would actually lead to the new food system. Simply as providing a space and a form for discussion amongst different groups is very important. Bringing them together; giving them a voice to the Board of Health—so that’s bridging between the community and City Council, and the Board of Health.” (Interview #41)

⁶ The municipal government of Toronto, also known as the City of Toronto, is the public corporation that provides service to Toronto, Ontario, Canada.

Second, closeness to the City and its cross-departmental structure offered the TFPC some protection and influence in supporting initiatives that challenged the agricultural and industrial status quo. Spearheaded by its then coordinator, Rod MacRae, the council developed a series of discussion papers shifting the conversation around hunger and food security toward systemic and capacity-building lines. Among the innovative initiatives inspired by crossing different domains, “Field to Table” was a nonprofit food distribution project carved out through discussion between anti-poverty activists and farmers. The idea was to integrate the need of Ontario farmers to have access to local markets and the need of the urban poor to have access to affordable food. A feasibility study in 1991 explored the possibility of selling high quality food at below-retail price in Toronto’s low-income neighborhoods. FoodShare, which was a pioneering food security organization at the time and had a close relationship with the TFPC, took this pilot project under its umbrella, and it became the cornerstone of the food distribution social enterprise at FoodShare over the following years. This made FoodShare one of the “earliest and strongest champions of TFPC” (MacRae, 1994).

Other instances during the 1990s favored a systemic and capacity-building discourse in the food system. Many reports or assemblies focused on the collectivity of stakeholders for finding long-term solutions and empowerment of civil society actors. At the national level, the federal government developed Canada’s action plan for food security and emphasized the role of civil society and a multisectoral approach (Koc et al., 2008). Along the same lines, a consultative process called “Food 2002” started in 1996 brought in community organizations, farmers, private sectors, and the government to make healthy food affordable and available to all.

In terms of the attempts on the ground, food banks were still the dominant solution in fighting hunger during the 1990s. However, the stigma attached to going to food banks made them not a likable solution for clients. This opened the space for organizations such as FoodShare to produce alternative initiatives.

“FoodShare has a very resilient culture of responsiveness. The first response was that people didn’t like food banks, and FoodShare heard that. Even before [1992], FoodShare experimented with new programming to respond to the problem of people not liking food banks.” (Interview #43)

Another characteristic of this period that made it different from before was that collective purchasing in the form of buying clubs and co-ops (cooperatives) received wide attraction. The models in which communities were collectively contributing to a community of farmers working together was favorable on the production side, as it was guaranteeing their sales; and at the same time communities could benefit from that prices that this model was providing for them. Purchasing as a group was a model that some local organizations were using to leverage community buying power. Tours to U-Pick farms or farmers’ markets in the city are some examples of these models. However, urgent hunger and affordability were the first priority of such initiatives, and the type of purchased food and health consequences were not the major concern. The latter became a concern that formed the core innovation of the Good Food Program model that was launched in this period.

“So, during this whole 90s, there was a lot of interest in co-ops, buying clubs.... There were other buying clubs established in Peterborough; many of them would buy things like Minute Maid orange juice, or particular brands of tuna fish or peanut butter, because they thought people should have brands that they liked.” (Interview #43)

In summary, the 1990s marked the start of discourse around alternative approaches beyond charity, establishment of governmental bodies in support of structural solutions, and a shift of emphasis on the role of the City and civil society actors in jointly developing comprehensive

responses. Particularly, creation of the TFPC provided a close municipal platform and ally for FoodShare and other organizations to support experimenting with unconventional, innovative initiatives. Below, we can see how FS's innovative model of a distribution hub and the Good Food Program were launched with the support of the TPFC, and how over the years FS was in conversation with this council in forming forward-looking food policies.

FoodShare:

FoodShare as a successful food security organization had already disconnected its image from being a food charity with its multiple community-driven initiatives and more than before had engaged in the conversation to push forward for fundamental solutions with multiple interactions with governmental bodies, such as being one of the core members of TFPC. FoodShare's actions in this period include two major highlights. The first one is the launch of its social enterprise food distribution model in 1992. The second is the beginning of FoodShare's incubation role in 1995 with its relocation to a new place with an industrial warehouse and kitchen facilities.

a) Beyond charity to a distribution-hub model (from 1992):

In 1992, following the TFPC's feasibility study for a model to connect Ontario's local farmers with the urban poor, FoodShare's new executive director proposed that a "Field to Table" pilot project to be set up inside FoodShare. The initial pilot model was to make below-price fresh produce accessible for underserved neighborhoods by directly sourcing from farmers' surplus food. This model changed FoodShare's relationship with its audience forever, transforming them from 'clients' into 'customers'. This transformation was critical in the sense that people were no

longer charity recipients but regular customers of the food business. FS's major effort through all the GFP models was to create a market mimicking a regular business or marketplace similar to any food retailer. The only difference was that the backbone model was operating as a nonprofit and prices were lower than regular retail. As described by the project's co-founder, "Field to Table" started small by selling local farmers' produce in isolated rural areas outside Toronto to a few underserved neighborhoods. Also, from the very beginning, that the food be healthy was a core component of the equation, thus making FoodShare's social enterprise about fresh fruits and vegetables.

"There was a man that had a truck. He drove in from Guelph/Waterloo, and he parked at the subway station at High Park, and he brought things from the Mennonites [a Christian community living in Northern Ontario]. So, we started talking to him, and FoodShare eventually bought his truck. [Co-founder's name] and I set up these stops in neighborhoods. So, we went to four a day, so [co-founder's name] would go rent the truck; I would go to the food terminal, at six in the morning, and then she would meet me, and we would lug all the food onto the truck. In a way, that was kind of the beginning of a more professional thing that happened later [Good Food Program]. We decided, with [FoodShare's executive director], that let's just stick to fresh food and vegetables." (Interview #23)

The program was not successful financially because of its low margin and the fact that the customers were not used to seeing this model in their neighborhoods.

"The field-to-table traveling food truck did not work. We would show up in a community, and nobody knew we were there. There was no demand. We tried in the winter to go inside the lobbies of buildings and, again, nobody came. And just as we were beginning to do more and more markets, Daily Bread [a Toronto-based food bank] began doing free markets where they would give leftover vegetables and fruits to community leaders, and they could give them out in the building. So, they were competing with us at free, even if the quality wasn't as good. And I still could remember ... [Field to Table's co-founder] came into my office and said, 'I don't know what we're going to do; it's being destroyed.' And I said, 'It's okay, you'll invent something else.' And that's when she invented the Good Food Box." (Interview #43)

Later in 1994, the "Good Food Box" (GFB) was launched as a successor to the "Field to Table" truck in which produce was bought directly from the Ontario Food Terminal (OFT— Canada's largest wholesale Fruit and Produce Terminal) as well as from local farms and delivered and sold

weekly through local coordinators to customers. In this model, FS eliminated the middlemen and excess markups in the conventional supply chain to insure below-retail prices for consumers. Therefore, consumers were paying only the wholesale price of the produce while transportation and other costs were covered by FoodShare. This model became the heart of FS's major social enterprise called the "Good Food Program". The key was building a universally accessible program through selling high quality produce in accordance with FoodShare's mission of "good food for *all*". Along with the launch of GFB and selling produce to households in boxes, using the same infrastructure, FoodShare started selling bulk produce to schools and community agencies for their snack or meal programs. For instance, fruits that were bought from farmers or the OFT were packaged in the warehouse in bags of large quantities (500+) to be sold directly to schools that were running free mid-day snack programs. All the programs that were working under this sales umbrella were called the "Good Food Program" (GFP). In this period, two of these programs that were launched were operating using the same backbone infrastructure (GFB and Bulk). Figure 4 illustrates the range of GFPs and a photo is show for each model.



Figure 4- Good Food Program Models⁷

In order to guarantee affordability for the end customer, produce for the Box and Bulk programs was sourced from both the industrial food terminal and local farmers. Apart from working with larger local farms, FoodShare was able to create sustained relationships with more than 30 small scale farmers in two isolated communities in Ontario.⁸ Sourcing from such farmers was intended to address the problem of small farmers' viability and their access to local markets. Therefore, FS actively searched for and found opportunities to connect with these farmers and build relationships with them through the "Good Food Program". The relationship with FS benefited farmers in many ways. First, it enabled them to grow to an existing demand with guaranteed sales to FS. Second, through the interactions with FoodShare, these farmers were able to develop their production, packaging, and marketing capabilities to sell to the broader

⁷ All photos used in this figure are publicly available on FoodShare's website: <https://foodshare.net/>

⁸ These were mostly religious communities located far from the city with minimal interaction with urban life, such as farmers in the Mennonite communities.

market. It was through this interaction that they were exposed to other market opportunities in the city and beyond. The vignette below illustrates how by following relationship building efforts, FoodShare transformed farmers' capabilities and connected them to broader markets in the city.

Vignette 2: Around the time that FoodShare's Good Food Box started (1994), Co-founder of the program and now a FoodShare employee received a call from a professor at the University of Waterloo with a suggestion to connect her with farmers of an isolated community outside Toronto. The community previously had a cream board which had been disbanded. The proposal was to see if these farmers wanted to sell produce to FS for its GFB program. In GFB co-founder's words: "So, I was going to talk to these farmers about how they can substitute growing vegetables for their cream.... I go home, and then he phones me and says, 'They'd like to see you again', so I went down again, and we met, and we talked, and I thought, something's wrong here. Like, am I dressed properly? Am I covered up properly? and then I thought, 'How about I come back in two weeks, but you bring your wives with you and we'll have a potluck.... We met in this little church. had a potluck in the basement of a church and the food was amazing.... It turned out that while the men looked after the animals, the women looked after the vegetable gardens. So, actually, it was the women that I was going to be dealing with. We tried to plan. And it was very efficient because you weren't growing a bunch of vegetables that you're going to throw into the market place. You were growing to a demand. And we could sort of tell, OK your land is good for cabbages. They're going to be ready in August. Could you grow corn; could you also grow something that makes one whole thing? And if you're going to grow in the spring, can you do peas and garlic, so it's worth it for us?"

So, the first delivery was brought in as favor by one of the family farms working with GFB at the time. From the very first day, the farmers started learning: "[On the first delivery, so on the back of the truck] it's a washing machine box that is full of six-foot-high leeks. They're pulled out of the ground and they've been put in this box standing like this. And they're filthy, like, I just couldn't believe it. I sent word back and said you know you need to learn to bunch, to package ... they had gone to their community [with the message] ... and there was a huge learning curve there ... huge. But they did it so quickly. And some of these farmers at the end of the first and second year were earning 60 thousand a year from FoodShare. An enormous thing for them."

And this relation continued as FS introduced them to many other market opportunities beyond GFB and connected their market transaction the to FS mission: "Over the years we developed a wonderful relationship with these farmers.... When they showed up in the warehouse ... when they came, they would sit with the kids [from youth training programs] for lunch. [Sometimes there were the] kids with their tattoos, their nose rings, their clothes. And they [the farmers] were perfectly understanding of what we were doing, creating community around food. Like it was so natural to them. And they ended up inviting us to their places and we'd go with the kids. We would be served beautiful food, and it was so touching, you know, and then I said to them 'Okay, how about I – you come to Toronto, and I'm going to take you around to different stores that I think are interesting, that you maybe could go beyond us.'"

This is how a community of these farmers came to visit the city stores. "So, they got someone to drive them in. I drove the van – the Food Share van – and they were all in the back – all these little old men." And they visited a wholesale store; and "So, we went to that store, and they were kind of

shocked because you could see the chick peas and stuff were sold like this; they're not sold like [the way they are used to seeing]." After visiting a Chinese community garden and agriculture cooperative, they visited Whole Foods.

"We go into this store, and it's so [with emphasis] overwhelming, right? It's so sparkly; it's so, oh, lush. They're taking everything in – everything in – and before – I sort of went off, and I was looking and showing them things, but before we left, they had a contract with Whole Foods. They set up selling to Whole Foods – that store – and now (2017) they sell to Chicago. Like, it's unbelievable. Because they're entrepreneurs. Like, they weren't gonna miss this opportunity. They might never be back here. It was just amazing."

(Written from interviews #23 & #30 with the Co-founder of GFB Program about the events in the first few years in 1994)

The first 40 Good Food Boxes were packed in the basement of FoodShare's first location. A year after the launch of the Good Food Program, FS moved to a city-owned warehouse with a minimal rent. The warehouse, with enough space and facilities (e.g. loading dock and walk-in fridges) as well as an industrial kitchen, enabled FS to scale up sales operation, initiate its model of being a food-hub within the larger industrial hub in Toronto, and develop an incubation role for community projects and small businesses.

b) Food hub and incubation model (from 1995):

When the role of community initiatives was being highlighted in provincial and national reports in the late 1990s, FS brought community development and capacity building to its center of attention more than before with relocation to the new warehouse. This new location stimulated two types of programs starting from 1995. First, the new location provided some new resources, such as a suitable space for FS to experiment with some new initiatives to form its own model of a food hub. A food hub is defined as a place providing logistics, such as aggregation, storage, and distribution of food, to connect small-scale producers to institutional or retail buyers

(Mittal et al, 2018). FoodShare's facility became the space to bring in the produce purchased from the Ontario Food Terminal (the province's industrial food hub) as well as from several individual family and small-scale farms, and to store, redistribute, and sell it to individuals and institutions through the Box and Bulk models. In this way, a smaller hub was created within the province's food hub. FoodShare's model of a food hub was not a mere warehouse but included a number of other projects, such as a rooftop garden and a greenhouse, beekeeping, composting and a kitchen. The goal of these projects was to showcase a model for a food hub that extends beyond redistribution alone.

Second, this new facility provided a space for experimenting and incubating initiatives in partnership with community business leaders as well as small businesses. In partnership with community members, a series of such programs was piloted: 'rooftop garden', 'baby and toddler nutrition', 'field-to-table catering', and 'youth internship programs'. Many of these programs were designed to train individuals in skillsets to grow and eat healthy or to gain job market skills in the food sector. These programs were meant to complement the distribution component with a community development aspect.

Besides, the new space with urban agriculture and cooking facilities provided support for community groups to try out food business ideas. For instance, the 'Toronto kitchen incubator' program in 1996 with a licensed commercial kitchen gave individual entrepreneurs the opportunity to test their catering or cooking businesses. Similarly, growing resources enabled urban agriculture social enterprises to be incubated in FoodShare's garden. As explained by the co-founder of one such small business, FS provided a wide range of incubation and in-kind support for initiation and growth of socially aware businesses:

“So originally it was sort of our business, but we were of course working at the FoodShare’s building and as time went on, we became more and more integrated into their program. [FoodShare] was really like an incubator for us. Lots of [projects] were incubated there like Wow box [was there], or African food basket was there, the kitchen was there, all sort of entrepreneurs were using the kitchen. [FoodShare helped us with] endless opportunities to network and become involved in new projects, expand our work and expand our thinking about our work. Kind of all of that ... from the community partner side; I remember we had these work days and people would come and help us [because of being at the FoodShare location]. Through the FoodShare network we could get the word out, linking us to mentors, people who could help us with growing, linking us to resources, to people who actually could help us with staff, funding, access to land, it’s kind of endless.” (Interview #33)

Apart from these efforts in communities, FS was also playing a key role as a partner and coordinator for collaborative initiatives on emerging topics in this period such as student nutrition or urban agriculture. For instance, FoodShare chaired the Toronto Community Garden Network in 1999 with the goal to coordinate the relationship between gardeners and the City and conduct job training for them. In this role, FS was the link between the City’s resources and the gardeners’ needs.

Summarizing period 2:

The second period of FoodShare’s life (1992-2000) corresponded to a period in which the City became more active in taking responsibility for food security and hunger issues. The creation of the TFPC and its goal of finding long-term structural solutions provided FS with a close ally and partner for innovation. This was the start of many years of joint experimentation with different solutions and back-and-forth support for each other.

With the City’s support and the rise of a cross-domain perspective on food issues (e.g. local farmers’ viability and affordability in urban low-income areas), FoodShare launched and scaled up a new distribution model by directly connecting local farms with the urban poor. In order to operate this social enterprise model, FS built close relationships with both communities of

farmers and consumers. To scale up the food distribution model, FS helped local (and many isolated) communities of farmers to develop growing, packaging, and sales capabilities to be able to market their produce to urban consumers. Likewise, through community partnerships and incubation of community and business projects, FS created close relationships with many community members and community organizations to enhance food awareness and skills to foster demand as well as capacity in communities.

4.4.3 Period 3: Community partnership and animation projects (2000-2005)

Context:

By 2000, in “the absence of federal and provincial leadership”, the City tried to uphold its commitment to food issues. As a result of the “Food 2002” consultative processes that had already been started, the City Council of the newly amalgamated city⁹ created the Food and Hunger Action Committee (FAHAC) in 2000 with the mandate of addressing food security in Toronto. FoodShare and other food agencies were heavily involved in the formation of this committee by encouraging its formation and organizing tours and deputations. The committee was tasked with, first, consolidating an overview of the state of food security in the city using community consultation and, second, advising on policy and program changes needed to enhance coordination of services related to food security. Two reports were developed and

⁹ In 1998, the regional municipality of Metropolitan Toronto and its six constituent municipalities was dissolved, and a new single municipality called the City of Toronto was formed. This broader change had two particular impacts on the context of food security efforts in the city. First, poverty and food issues became an issue under one new local jurisdiction, making the problem a bigger concern as the population under the city’s jurisdiction increased by the addition of previous suburbs that were mostly lower-income demographics. Second, cost savings resulting from this change opened up some financial opportunities in the local government (the City) that could be redirected to community projects.

published by this committee in 2000 and 2001. The first report in outlining hunger status stated that despite considerable attempts by the social sector and the City, Toronto was far from being a food-secure city; while there were hundreds of community-based initiatives, there was “little consistency among programs and no overall coordination”; and most of the programs were heavily based on donations and volunteer labor, putting the initiatives in danger of being unsustainable (Archive #74, Interview #30).

As the second stage of the Food and Hunger Action Committee, the committee brought to the Council, the “Toronto Food Charter” and an Action Plan in 2001. City Council adopted the Food Charter, which later inspired dozens of food charters around the world (Robert, 2004), as well as the Action Plan. The Action Plan aimed to provide a set of practical and feasible steps to nurture existing partnerships and build on existing programs. It urged the City to enhance its role as an advocate for food security, a co-ordinator of community-based initiatives, a supporter of food programs, and an innovator in food security. Recommended strategies encompassed four themes: prevention rather than emergency relief; enhancing linkages and partnerships to bring together city, community, environmental, and business organizations; creative and efficient use of underused resources; capturing opportunities to create new streams of revenues and savings from food security initiatives (Archives #78, #105).

Among these recommendations to the City, three are interesting to note here. First, the City was encouraged to support urban agriculture initiatives by allocating financial resources, extending partnership with FS as the coordinator of community gardeners, and requesting City departments for underused lands and greenhouses to be allocated to such initiatives. Second, promoting community and farmers’ markets was recommended as a way to connect local

farmers with urban consumers. The City was urged to get relevant departments to “continue providing space for farmers' markets at civic centres to add vitality to these public spaces as well as to provide an opportunity for Torontonians to meet local farmers and buy the freshest food possible”. Such suggestions opened the space for initiatives whose core was to connect production and consumption to create jobs and ensure affordability and access.

Third, in several of these recommendations, community development was discussed as an important way to target root causes, and the City was encouraged to provide financial resources for community projects. Therefore, a body of grants was approved by the City to be allocated to food security grassroots initiatives. These grants’ calls for proposals stimulated a partnership between FS and two other lead non-profits to form a new community development model called the Toronto Food Animators Program.

Later, in 2003, the Food and Hunger Action Committee released a follow-up report outlining the challenges in implementing the suggested strategies and calling for more permanent food security coalitions. Another highlight of the reports in this period was encouragement of market-form initiatives to connect local farmers with urban consumers. For instance, as pinpointed in the 2001 Action Plan, the City was recommended to encourage relevant departments to “continue providing space for farmers' markets at civic centres to add vitality to these public spaces as well as to provide an opportunity for Torontonians to meet local farmers and buy the freshest food possible”. Such suggestions opened the space for further initiatives to connect production and consumption, to create jobs, and to promote affordability and access to fresh produce.

Overall, in early 2000 with the development of the Food Charter and the FAHAC reports, it became clear that there was much to be done by the City to get closer to ending hunger. The City was urged to provide more support, including public spaces, funding, and more facilitation for community projects, including those in urban agriculture and community initiatives. Such financial support provided a favorable environment for larger non-profits like the FS that were working city-wide and implementing initiatives across different communities to be more systematic in their community engagements. This will be illustrated below in the discussion of FS's network approach to initiatives.

FoodShare:

FoodShare accentuated the network approach to stakeholders and food strategies more than before in this period as it brought interconnectedness into its vision of food issues, potential solutions, and consequently involved actors. This vision is manifested in an approach that was developed under the leadership of then executive director Debbie Field and was used over the years to communicate FoodShare's holistic perspective to a broader audience. The approach used a three-circle Venn diagram to describe food system problems, stakeholders involved, and the way solutions need to be designed. For this reason, initiatives were to address health, agricultural, and income-related problems as root causes from FoodShare's standpoint. FoodShare's dedication to the health component, which started in period 2 with focusing on fruits and vegetables in its Good Food Programs (GFPs), extended in this period to include the agricultural aspect to benefit both the production side and communities through urban agriculture initiatives.

“We need to understand that hunger is created in a market economy where food is a commodity. All the diet-related illnesses have a significant negative impact on the health system. We need to address the structural causes of the agricultural crisis in Canada.” (Archive #104, FS’s keynote address at a national food conference, 2001)

This three-circle diagram served as a metric for FoodShare to think about its proposed solutions in terms of impact.

“The three circles [metaphor] was a way for us to see which aspects of the problem we were working on. An ideal program was one that had all three [income, health, and agriculture] present and also the same size [addressing all problems to a considerable extent]. That’s why Good Food Box was an interesting one [we were addressing all three issues at the same time].” (Interview #44)

FoodShare’s invitation to have a network of collaborations to stimulate real change was inspired by the same mindset (Figure 5). For instance, FoodShare’s then executive director argued at a national conference on “Working Together: Civil society input for food security in Canada” in 2001 that the key priority should be bringing together and linking diverse stakeholders such as farmers, the private sector, community organizations, food banks, and social welfare agencies to plan and implement societal-scale solutions for making food accessible to all. This linking approach was always at the core of FoodShare’s strategies and programs.

The holistic perspective enhanced the portfolio of FS initiatives to include urban agriculture and community gardens. As an example, a large-scale rooftop farm was created at FoodShare and the produced items were sold through the Good Food Program, adding to its range of activities to demonstrate a multi-purpose food center. At the same time, FoodShare by chairing the network of community gardens continued to support more than 93 communities “to facilitate gardens as a place where people come together to grow, share ideas, and resources” (Archive #92).

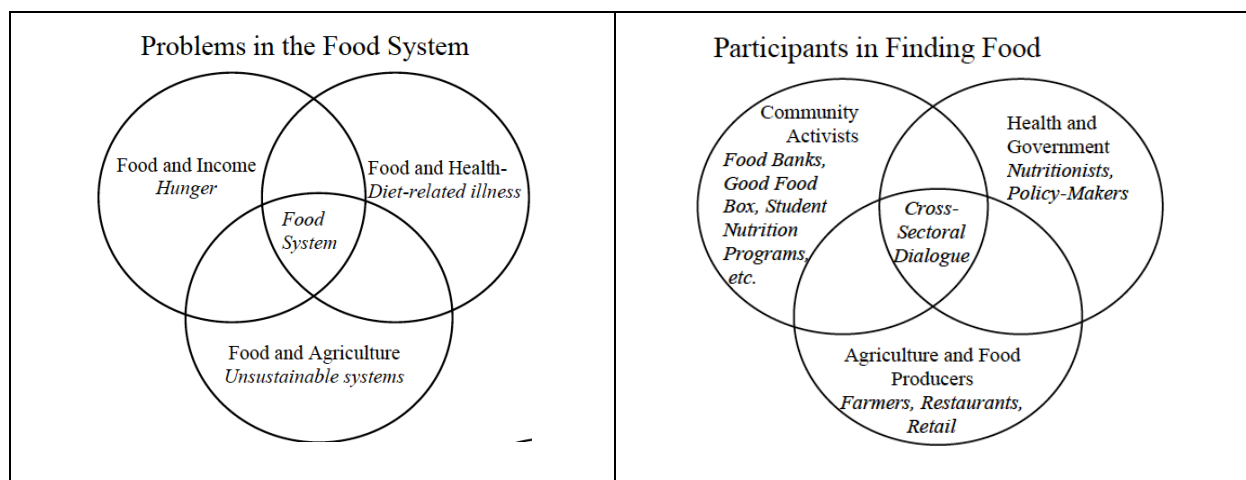


Figure 5- FoodShare's perspective on food system problems and stakeholders

(Courtesy of FoodShare, Original figures copied from archive, Developed in early 2000)

The perspective of integrating objectives and root causes led to an approach in which FoodShare leveraged existing relations and initiatives to create impacts in several domains simultaneously. FoodShare's partnership with a psychiatric teaching hospital called the Centre for Addiction and Mental Health (CAMH), which has lasted for more than 15 years, is a significant example of how FS was able to connect income generation and skill development for a marginalized group with an incubated urban agriculture business in the warehouse to create a community garden and market in a least expected location. The vignette below illustrates how multiple initiatives (e.g. community garden, running an organic market, skill-building initiatives such as cooking workshops and employment) were integrated and created multiple impacts.

Vignette 3: In the late 1990s, an initial partnership was formed between CAMH and FoodShare Toronto to provide employment for CAMH clients while running the Good Food Box social enterprise. As described by the GFB co-founder:

"We decided we need the Good Food boxes washed, so I went to CAMH and I said, 'Do you think you could organize some of the men that would come over to wash the boxes for us?', and then we [FoodShare] found money from the government for mental health, and we were able to pay them to wash the boxes. It was so complicated getting them and figuring the whole thing out. But, after three years, it worked out really well. It was very repetitious work, but it seemed to be right, and we would have coffee and fruit on the table [when they would come, and all our staff knew them]. After three years, I went back [to CAMH]. There hadn't

been one re-admission to an emergency ward for any of these very sick people that came to our program. Like, imagine the amount of money that saved the mental health system. It was incredible, and one afternoon a week with a meaningful work, and coming with other people, made such a difference to them.” (Interview #23)

There were many touching stories of how this program helped CAMH clients, most of whom had very serious conditions, with employment, training, and most importantly getting better:

“We paid them minimum wage to do it. Like, it was nothing to us – it was nothing [but other impacts were considerable]. Well, we went for a beer; we went to a movie. Like, it was just such simple stuff. I’ll treat them like employees, so we’ll sit around, and I’ll ask them about work – ‘How do you feel about work? How’s it going?’ – and they were so shy and backward, and one person put up his hand and he said, ‘I hear voices’, and then the second person put up his hand and said, ‘I do too’, and then third person put up his hand and he said, ‘You know, I did hear voices, but now I just hear your voice.’”

Following this relationship with CAMH, one of the incubated urban agriculture social enterprises at FS was proposed to be set up at the hospital’s greenhouse in 2002, and this eventually led to development of a 6000-square foot garden and market there through this partnership. As explained by one of FS’s former staff and coordinators of this program in early years:

“Then they had a greenhouse on site at CAMH, and we began to grow out seedling sprouts there, and worked with their clients to grow the seedling sprouts, and then, eventually, that led to a garden being developed at CAMH, so now that garden lives on.”

As described by a later coordinator, the garden is accompanied by a farmers’ market that sells the produce in the neighborhood:

“It’s a partnership, and we still have the Sunshine Garden there, so we run a horticulture therapy program there, which also has a social enterprise component. They sell the produce at a farmers’ market right on site at CAMH; but, previously, we had run a sprout program – so, growing pea shoots – and so the clients, we would work together, and we would plant them, and then it’s a ten-day rotation, so plant them and then harvest ten days later, and kind of like, we’d rotate them so that there was something to always harvest and something always to plant, and then we sold them – to a couple of different businesses. We also sold them into the Good Food program, so sprouts were included in our Good Food Box for a while there.”

As one of the early coordinators of the program explains, this partnership demonstrates how FoodShare targets root causes with employment and skill development along with including the health component in its initiative:

“CAMH garden is a good example because Food Share’s mission was related to kind of increasing access to healthy affordable food and increasing food security, so they’re interested in employment and job creation and skills, so they were working with these folks who have mental health challenges, as well as youth and other vulnerable populations, and I think that this sort of demonstrates our holistic approach around food security. So, it’s not just about giving people food; it’s about thinking about people’s full wellbeing, and all the social determinants of health related to food security.”

It was in this period that FoodShare moved toward partnerships and initiatives that targeted multiple objectives by combining different programs, i.e. community building, skill development, employment creation, health awareness, and enhanced food accessibility through community gardens and farmers' markets. Meanwhile, it has been clear to FS that such programs are more inclined to reach these goals even at the cost of not being fully economically independent.

"It's more work to have people with mental health challenges grow your seedling sprouts than it is just to hire people to grow your seedling sprouts, but I think the partnership is multi-layered and it's a multi-functional partnership; it's not just to grow seedling sprouts that we're doing it. We're doing it to raise awareness and to grow healthy food and to create employment, and to access space in places in the city where they have space but don't want to just rent it to a business. There's lots of layers to it, and I think there are very different kinds of benefits across these partnerships."
(Interview #33)

Another highlight of this period was the launch of FoodShare's partnership with three other non-profits to deliver a project called Toronto Community Food Animators in 2004. The project was to animate food projects in communities inspired by calls for community-based strategies. Animators from FoodShare and partnered organizations ran the programs on the ground by working as catalysts with community members to assist development programs and strengthen community ties in the initial phase. Since then, animators have supported organizing community gardens, community kitchens, and fresh food markets and creating community where none existed in targeted neighborhoods:

"We got organizers which we called animators, from the French anime, to breathe life into, to go into these places where there was no community and form a community around food. And they would go to people and say, I'll knock on your door and say 'You know we'd like to help you to try to do stuff [to have] an easier life and better place to live and I can help you [to do] one of three things [in your community]. We can either have a community kitchen, a farmer's market, or a community garden [in your neighborhood].'" (Interview #31)

The launch of the animation approach in 2004 was the start of a bigger stream of work at FoodShare that has remained with the organization up to this date as a community partnership platform. The core idea in this approach was to go beyond a service-delivery agent to the community and to be a facilitator and catalyst for community-led change. An evaluation study of the impact of food animators characterised the model as sharing many features with asset-based community development (Kretzmann & McKnight, 1996), which focuses on community members' strengths, formal and informal community associations, shifting communities from 'consumers' of services to 'designers' of programs and ultimately to 'producers' of community (Mathie & Cunningham, 2003).

Community animation was the first step in the next movement of FoodShare's approach to inspiring change. The key was to empower and create 'communities' around an anchor food project so that 'they' inspire change. While the project was funded in its first few years by the City, FS continued this approach as part of its strategy of community development. An evaluation study on the program identified increases in food access, social interaction, and community activity as major positive outcomes of food animators in communities. More importantly, connecting and networking resources was recognized as a major role for animators. It was found that food animators had connected and developed resources in communities through, first, developing partnerships between community agencies within each community and, second, by connecting individuals across communities through animators' workshops, which ultimately led to resource sharing among communities (FoodShare, 2009).

Apart from launching new programs in the period after 2000, FoodShare became actively involved in community consultation processes around hunger issues to promote and support

policy initiatives, one of which was the FAHAC, as discussed earlier. FoodShare was extensively involved in a grassroots consultation process called “Food 2002”, which envisioned an equitable food system. Stimulated by the long-term nature of the changes needed, FoodShare named its policy development project “Food 2002/2020”. The consultation at that time resulted in two sets of recommendations: 28 for policy makers and 28 for grassroots organizations. This combination of recommendations was well-matched to FoodShare’s stand in relation to other actors, close enough to grassroots action and policy making between government and community.

Summarizing period 3:

In the first few years of the 2000s, the reports that were developed by the Food and Hunger Action Committee provided a summary of the food security picture in Toronto. Despite numerous food initiatives by the civil society, the committee suggested that Toronto was far from being food secure. The Toronto Food Charter and an Action Plan developed by the committee were passed by City Council. Urban agriculture and community-based strategies were among the proposed strategies.

FoodShare’s emphasis on linking diversity of stakeholders and strategies to achieve scalable impact became clearer in the design of its programs as well as in its advocacy work. Use of the three circles represented its view of the interconnectedness of food system problems and the diversity of stakeholders involved. Health, agriculture, and income were all equally important to design programs to address multiple issues. FS constantly used this perspective in promoting alternative solutions to food issues, assisting with bringing this kind of thinking and discourse in the conversations at committees, councils, and other actors’ efforts. Over these years, FoodShare supported a great number of community gardens while developing multi-layered partnerships to

combine urban agriculture, the market model, and skill development, such as the CAMH sunshine gardens. By the launch of the community animators project in 2004, FoodShare started experimenting and transforming itself from being an agent of change in communities to empowering and supporting communities themselves to become change agents. Fresh food markets were one of the first community projects animated by FoodShare and became the basis for the birth of Good Food Markets (GFM), the Good Food Program's next child.

4.4.4 Period 4: Emergence of Good Food Markets as 'replicative platforms' (2005-2014)

Context:

During 2005-2006, thirteen priority neighborhoods were selected through census data social risk indicators from the United Way, the largest NGO supporter of social services, and the City of Toronto. The goal was to focus philanthropic and public funding and community service on these neighborhoods to maximize impact. These neighborhoods were under-resourced communities mainly located in food deserts across the city.¹⁰ Following this decision, funds were allocated to food security in the City's 2005 budget. The push to bring priority neighborhoods onto the public funding agenda alerted food security organizations like FS of the opportunity to get closer to neighborhoods in the design and implementation of the programs.

In general, until this time federal and provincial governments were more inactive because of uncoordinated distribution of responsibilities in regard to food-related issues. As each concern with agriculture and production, export and trade, fisheries, health, poverty and local development resides in a different provincial or federal agency in Canada, taking action was

¹⁰ Food deserts are defined as neighborhoods in which access to affordable and nutritious food is rare.

complex and dealing with food security had become unmanageable (Koc et al., 2008). Following two international conferences in 2001 and 2004 that brought together representatives from civil society organizations, a national organization called “Food Secure Canada” was formed in 2005 to advocate for and promote food security at the national level. Creation of such an organization and the sense of community at the national level are indicators of the favorable political and social climate of the time toward civil society’s positive role in transforming the food system through influencing agriculture, distribution, and consumption policies (Heasman & Lang, 2006). Although in previous periods, more of the social sector’s attempts were directed toward designing and executing initiatives, from this period on, policy advocacy was added to the agenda of non-profits.

Following conversations about the social determinants of health by some researchers and practitioners, Toronto Public Health, the City’s health division, spearheaded a consultation and engagement process in 2008 with the vision of a health-focused food system. In this process to develop a “Toronto Food Strategy”, inputs were received from a broad range of residents, community organizations, businesses, agricultural stakeholders, and City staff through facilitated discussions. One key outcome of this process was to identify “food desert” neighborhoods in the city, which was compatible to what had been identified a few years earlier by others (e.g. the United Way). Besides, the resulting report pinpointed key themes that emerged from community consultations. Among them were some concerns about lack of basic food skills and access to healthy food outlets in certain neighborhoods; interest in community-based solutions, including growing or cooking initiatives; interest in connecting farmers and urban citizens through food; and urging the provincial and federal governments to establish health-oriented food policies.

Also, the notion of “food strategy” rather than being only a report with a set of recommendations was encouraging a dynamic process of updating city policies in relation to health and food. Subsequently, in 2010, the “Toronto Food Strategy” was formed as a unit within the Public Health division to continue this ongoing process of “identifying, building and strengthening positive connections—between local government and residents, among City Divisions, within the community, and with the countryside” (Archive #80, #83, #85).

In general, this period can be characterized by two relevant events. First, food advocacy came onto civil society’s agenda more than before and included organizations such as FoodShare that were incorporating policy change as one of their strategies. Koc and colleagues argues that there was a shift in points of decisions impacting food policies in the early 2000s that brought more voices to the table (Koc et al., 2008); and therefore, civil society’s organizations required a different skillset, notably a good understanding of realities on the part of public actors and a detailed grasp of programs on the ground to provide information and legitimacy to civil servants. This placed organizations like FoodShare with a history of working closely with communities in a unique position for coordinating policy change efforts. Second, later in the decade, the dynamic renewal of food policies with a health focus and supporting and expanding successful initiatives became a part of local government’s agenda with the creation of Food Strategy as a Public Health unit.

FoodShare:

This period is marked as the emergence of a unique market model that was born at the intersection of two of FoodShare’s lines of work launched during the previous periods: The Good Food Program and the Community Animators Program. The GFP had already been working for a

decade from 1994 through Box and Bulk sales, and it was providing an alternative shortened supply chain for costumers. In 2006, around 4000 boxes were delivered each month to 200 drop-off points across the city. Each drop-off point was managed by either a volunteer individual or the local organization. Influenced by the idea of targeting priority neighborhoods and stimulating food initiatives in closely working with community leaders, fresh produce markets were one of the first candidates for community animation, as a model that FoodShare had enough experience and infrastructure to experiment with. FoodShare launched its first two Good Food Markets in 2005, as another form for selling affordable produce to selected neighborhoods. Building on the same infrastructure—warehouse, staff, transportation—as the GFB and Bulk programs, markets later became the third component of the GFP, FoodShare’s major social enterprise. In terms of format, the markets were similar to farmers’ markets. The difference was that fresh produce purchased bulk from the food terminal and local farmers was sold in small weekly markets in target neighborhoods at below-retail price, while FoodShare was covering transportation and labor costs. In the first few years, from 2005 to 2007, as explained by FS former staff and one of the first GFM coordinators, FS was exploring different possibilities with the idea of produce markets in low-income communities either by running the first few produce markets or helping famers’ markets to succeed in those communities:

“My first role was to lead Toronto Community Food Animators. [At first,] we were helping a farmers’ market start up and helping three Good Food Markets start up. So, in 2006, my role in the three Good Food Markets was to go, set up the stand in the low-income community, and run the markets. Like [to] go and be the vendor at the market. Set it up, sell the produce, make it look like beautiful. [However, the one] farmers’ market [that we were helping with] was trying to be a mixed model. Access to people who are low income as well as people who are upper income and to farmers. So, we were trying to figure that question out: can you have a farmers’ market that does both? Makes enough money for farmers and is accessible to people who are low income and have upper middle-income people going to it too. So, because a key question for farmers is that they have to make enough money, which is why there’re no farmers’ markets in low income

communities. They can't make enough money. This is why we have the Good Food Market model because it's our answer to the farmers' market challenge. There're no farmers' markets in low income communities. [Instead,] there're produce markets in low income communities." (Interview #07)

As can be seen, GFM was a way to respond to farmers' markets' not being viable in low-income communities and to expand the scale and impact of distribution models by getting closer to communities. The GFM model is unique in the sense that it combined FoodShare's community work with its distribution work, two aspects which were separate before. The alternative distribution model—the GFP—had affordability and access as its core mission, while all the community building programs, such as training workshops, community kitchens, or community gardens, were designed to increase food literacy, employment, and the overall community capacity. The GFM model was a way to integrate these two goals by providing a space for market transactions as well as community building. Besides, the model was beneficial with its symbolic positive messages of self-worth and affirmation for 'customers' and valuing people's esteem, which was identified as one of the main reasons why food banks were not liked (Scharf, 1999).

"For our Good Food Market program, we get a lot of feedback from the different sites; people do it for access to fresh fruits and vegetables, and the health benefits to the community. But it also has a lot of impact in terms of the ability to bring the community together on a regular basis, for people to get to know each other. It's a nice community-building event. And it also offers people within the community opportunities for skill-building, opportunities for volunteering, where they are serving their fellow [neighbors]...." (Interview #38)

Over the years following the first markets, FoodShare realized that scaling up GFMs was not possible unless the model were to change to a community model. This meant that instead of FS being the organization running the markets, individual volunteers from the community or a representative volunteering organization—a community organization, hospital, church, college, university or any other institution—should run the market, and even the request should come from the community.

“We struggled for a few years to figure out how do we transfer over this market to the community? And that never worked well. What we learned several times is that the community has to come to us.” (Interview #07)

Therefore, as the number of GFMs increased, FoodShare changed its role to become a backbone organization supporting each market’s initiation and operation. Apart from providing the produce for each market through its shared GFP infrastructure, FoodShare partnered with each market operator (community leader or partnering institution) to assist them with guidelines and mentorship for running the markets, connections to potential local vendors for products other than fruits and vegetables for the markets, and market coordinator workshops, which enabled coordinators to cross-learn from each other. With this model, GFMs scaled up and their number reached 45 markets in 2017.

Transferring the agency in market operations to institutions in each community made those institutions agents of building community around markets and connecting individuals and local organizations and with community resources. This made markets and the organizations running them community hubs, even where they were not traditionally one, such as in the case of health or educational institutions. As the founder and supervisor of one the largest markets located in a college that had been in operation for more than five years explained:

“[When we got to the lobby of the school], then people wanted to become our allies. We were contacted by programs in the school of social and community services saying can you offer placements at the market. Can we list you as a placement opportunity for the students? Then there is another organization called [name of the organization] that works to enhance students’ experience on campus using students to run workshops. They got on board and said can we showcase some weekly recipes, and we want some of our culinary students to cook with good food materials and offer samples and recipes to students. Then we noticed the problem of leftovers and we created a supper club. That was through a friend who was from a culinary background. Then different condos around the campus saw some of our flyers ... many of them were seniors. Now these residential buildings became partners in some sense; they were introducing us to their residents. FoodShare makes it very clear that the market is a community hub. It is meant to be a gathering place. So, they want people of all sizes and shapes to shop at the market. We don’t want

to be a market only for low-income people. Then all the stigma associated with the food bank comes back. We want to feel like a market – a store where anyone can shop. Another big collaborator is the student association’s food bank. So, they become our ally and they started buying our leftovers. It was win-win. They had fresh fruits to give their clients, and we had a permanent solution to our leftovers.” (Interview #34, Good Food Market supervisor in a college)

Apart from this, the independence of each market made customizing the produce sold and the support from FoodShare possible. This way, FoodShare’s relationship with each market operator was unique, depending on the type of organization running the market, the market’s location, and the challenges the market operators were facing in making the market sustainable. This makes these markets contrary to the one-size-fits-all notion of produce distribution. As explained by GFM coordinator:

“[Good Food market] is a program where community takes leadership to run the market program. And we support... We do trainings. We are able to support as well through providing certain supplies for the start-up of markets, and things like that. So, one item that might be a pricier item for a start-up is a legal for trade scale, which might be a few hundred dollars. And then, things like ... for a start-up, we would be able to provide some signage – so, maybe banners or sidewalk signs. And in this area [specific priority neighborhood] particularly, we are able to support with promotions, as well as some start-up vouchers, to distribute to residents or within the community.... [We also provide] trainings around running the Good Food Markets, financial aspects of running the markets. Things that the community identified they wanted to [learn] ... I think when it was first asked of them, what sort of trainings they felt they needed.” (Interview #38)

Moreover, FoodShare experimented with other market initiatives building on its infrastructure and its capability in running such initiatives. Well-established relationships with local farmers and food terminal vendors, transformation and distribution, and warehouse management were among these capabilities. For instance, in 2012, FoodShare experimented with delivering affordable food to a remote First Nations community in partnership with a local organization to explore the feasibility of expanding to other First Nations communities across Canada. In the same year, FoodShare launched another pilot project called “Mobile Good Food Market” in partnership with Public Health, the United Way, CAMH, and the University of Toronto.

The initiative was a good food market traveling in a bus to population-dense areas. Through the donation of two buses from the City Transit Commission in 2013, Mobile GFM was able to expand to operate year-round and became another component of GFP that has remained with the organization.

Apart from launching new market-form programs, FoodShare was involved with two other major lines of work that were the same as in previous periods that are not detailed in this narrative. First, food literacy and school food programs were an integral part of FS's efforts, such as showcasing healthy school cafeterias, supporting schools for healthy lunch and snack programs, and integrating food literacy into the school curriculum. Second, from 2000, policy advocacy became one of the major priorities of FoodShare. There are several examples of these engagements over these years, from providing policy recommendations to all levels of government, to organizing deputations opposing budget cuts to school programs, to hosting fundraisers and summits in support of food literacy and school food. In relation to the focus of this research, the details are not provided of these two lines of work; but it is important to note that food redistribution in form of market models was not working in a silo in FoodShare's transformative endeavors.

Summarizing period 4:

Throughout this period, through identifying food deserts, focusing on specific neighborhoods was encouraged by the city and philanthropic organizations. Also, civil sector organizations and consequent coalitions directed more attention to influencing provincial and national policies on topics such as school food. Meanwhile, with the creation of the "Toronto Food Strategy" as a unit in Public Health, food as one of the social determinants of health became

critical in the City's policy efforts. In response to increasing demand for healthy food and inspired by community animation of food projects, FoodShare launched GFMs as a way to closely interact with communities through market spaces. Over the years, by transferring the markets to local organizations and, more importantly, learning how to encourage local partners to initiate running their own markets, FoodShare started to move beyond being the operator of market programs and became rather a backbone support for the organizations running them. From the beginning, FS promoted and supported markets to be community hubs with applications beyond mere market transactions, such as connection building within and across communities as well as with other stakeholders. As in previous periods, FoodShare continued to experiment with other forms of produce sales, such as mobile markets.

4.4.5 Summary and highlights: market and community programs

Up to this point, I have provided an overview of the organization's life in the form of a historical narrative. Table 7 summarizes the key points, the events and programs that were described over the four periods. The narrative situates FoodShare's initiatives in the context of movement trends around sustainable food systems and food security as being played out by different actors, particularly in the public and social sectors. In moving forward from this narrative account to bring out the patterns of FoodShare's actions toward forming an exploratory model, foregrounding some aspects of the case and backgrounding others are inevitable (Berends & Deken 2019). As outlined, FoodShare was (and is) a multi-functional and multi-program organization with various areas of work including food distribution, food literacy, urban agriculture, food policy, and advocacy. This study focuses on the role of brokering actors in influencing the interactions among different stakeholders. Having this in mind and based on the

narrative presented here, two categories of interventions (or programs)¹¹ stand out. These are the programs through which FoodShare strategically bridged distant stakeholders. The Good Food Program (the major social enterprise at FoodShare) was the one line of work for which the organization was (and still is) best known. It was the first-of-its-kind market-based distribution model operated by a nonprofit actor. Second, evolution of this distribution model did not occur in isolation and was in close interaction with programs and initiatives that were realized to address other food system issues in relation to target communities.

Table 7- Chronology of events and programs at FoodShare

	Period 1 (1985-1992)	Period 2 (1992-2000)	Period 3 (2000-2005)	Period 4 (2005-2014)
FoodShare Programs (community and market lines)	<ul style="list-style-type: none"> • Hunger hotlink • Food action project • Community revolving fund 	<ul style="list-style-type: none"> • Field to Table Truck • Good Food Box (in GFP) • Bulk Produce (in GFP) • Incubation initiatives at warehouse • Toronto kitchen incubator 	<ul style="list-style-type: none"> • Urban agriculture/Community gardens • Community Food Animators 	<ul style="list-style-type: none"> • Good Food Markets • Mobile markets • Community food animators
Main Focus	<ul style="list-style-type: none"> • Hunger 	<ul style="list-style-type: none"> • Hunger and Health 	<ul style="list-style-type: none"> • Hunger, Health, and Agriculture 	<ul style="list-style-type: none"> • Hunger, Health, Agriculture, and Income

¹¹ I distinguish between an intervention and a program. An intervention is a set of activities that the organization conducts informally but is not advertised as a formal program (e.g. incubation activities at the FS warehouse). A program is a formal project (time bounded or not time bounded) designed specifically with an allocated budget to be implemented for a pre-defined goal and audience (e.g. the kitchen incubators program).

Actors	<ul style="list-style-type: none"> • Municipal gov. • Philanthropists and donors • Food banks • Community groups • Community individuals 	<ul style="list-style-type: none"> • Municipal gov. • Philanthropists and donors • Community groups • Community individuals • Institutional buyers • Local farmers • Producers in industrial hub 	<u>All of previous period +</u> <ul style="list-style-type: none"> • Partnering Nonprofits • Community animators 	<u>All of previous period +</u> <ul style="list-style-type: none"> • Institutions operating markets
Outcomes	<ul style="list-style-type: none"> • Coordination of fundraising for Food Banks • Information transfer on root causes • Leveraging bulk buying in comm. 	<ul style="list-style-type: none"> • GFP infrastructure and model • Incubated businesses. and comm. projects • Health added to core of FS • Sustained market for partnering farmers 	<ul style="list-style-type: none"> • Comm. gardens • Multi-functional partnerships (e.g. CAMH) • Comm. consultation (Food 2002/2020) • 28 policy recommendations • 28 grassroots recommendations 	<ul style="list-style-type: none"> • Good Food Market model • Market as hub
Context	<ul style="list-style-type: none"> • Support FBs and charity approach 	<ul style="list-style-type: none"> • TFPC (connectedness of problems and solutions) 	<ul style="list-style-type: none"> • FAHAC (inconsistency and lack of coordination among community-based initiatives) • Toronto Food Charter and Action Plan • Community highlight development model 	<ul style="list-style-type: none"> • Toronto Food Strategy • Priority neighborhoods • Food security in city's budget • National policy advocacy

Figure 6 outlines FoodShare's initiatives under the food distribution umbrella, which became the Good Food Program through the launch of the GFB in 1992, as well as programs with a community angle that developed in parallel. When going through the narrative, the periods are marked with critical junctures to develop a new model of engaging with stakeholders through market and community models; they include the birth of FoodShare as an initiative within the City in 1985 (period 1); launch of the innovative market-based distribution model by the pilot

Field to Table Truck in 1992 (period 2); creating multi-purpose initiatives specially to combine community and market works and launch of the community food animation partnership in 2004 (period 3); and launch of the first two Good Food Markets in 2005, and moving toward engaging with other resourceful actors to operationalize them (period 4).

Period 1 (1985-1992) marks the birth of FoodShare as a project proposed by the mayor to the City Council with the mandate to direct individual and corporate donors and people in need to food assistance programs, i.e. food banks, and to research the root causes of hunger. Following its initial success with this project, FoodShare was founded as an independent non-profit organization and started its own direction. In this period, influenced by its initial mandate, FoodShare was a supportive body for food banks through its hunger hotline and fundraising activities. However, from the beginning, the early founders of the organization moved away from charity-based models by focusing on community-based strategies. An example was the Food Action Project, in which they succeeded in persuading the provincial government for funding, which was used to form small collective buying initiatives, such as buying clubs or traveling to U-pick farms, that were all with the mindset of enhancing communities' purchasing power by bringing them together. At the same time, they piloted supporting small community businesses through the community revolving fund project. This period was the start of FoodShare's moving away from common charity approaches to food allocation and experimenting with projects whose main goals were community development.

In Period 2 (1992-2000), addressing accessibility and affordability through a non-charity approach took a formal form through the launch of the Good Food Box and Bulk Produce programs, which aimed at connecting local and small-scale farmers in the suburbs to

marginalized customers in the city. FoodShare designed and managed the operation of the program, which was experimenting with different configurations of this model. The challenge for initiating this innovation was creating the logistical infrastructure and capabilities as well as the social infrastructure and connections with communities of farmers and customers as the model was being implemented. FoodShare's emphasis on fresh produce as the only target of this program added health as a core component of its program to the former concerns about the food system. Meanwhile, establishment of a produce warehouse for this model enabled FS to create a community hub and shift its community development model to the next level by incubating community-based small enterprises and community projects.

During period 3 (2000-2005), urban agriculture initiatives were added to the community work agenda at FoodShare by using growing as another way of community building, income generating, and healthy food education. In this period, a holistic approach became more important in designing programs, particularly in making programs multi-purpose by taking health, income, and agriculture into consideration. Encouraging running produce markets adjacent to community gardens or joining gardens with youth internship programs are examples of this orientation. Later in this period, partnership with community animators was the start of another innovative approach in regard to community programs. Providing animators to community projects who were responsible for supporting community leaders and local organizations in running projects was the first step in transferring agency to communities.

While community animation had just been launched in 2004, in period 4 (2005-2014) the first two markets were animated by FoodShare. This market animation manifests another pivot in FoodShare's approach—moving beyond being the owner and operator of programs in

communities and using markets as a means to hand over ownership of distribution and community building to local organizations and institutions in each neighborhood. This sets the stage for encouraging other actors, particularly agencies with enough capacity in each community, to take up the markets as a place for community development and incubation while running the markets as affordable produce outlets. This model combined markets and community work in an attempt to form multi-purpose initiatives.

From the narrative, a temporal coherence in FoodShare's activities over these four periods was presented. A vivid image of the context in each period provided an understanding of the setting in which different approaches were adopted by the organization. Putting the four periods together, we observe how FoodShare's approach and programs evolved over time. The organization started as a facilitator within the widespread charity-based context of solving hunger. However, it pivoted later by introducing a market-based lens into solving food access and incorporating community development as a way to empower other actors in the network. Last period marks the innovative transfer of community markets' operation to local institutions to enable replication of FoodShare's impact by other actors across the network. In moving forward to explore the brokering mechanisms, I use the narrative to identify different groups of stakeholders that got engaged with FoodShare in each period. In what follows, in order to connect the brokering roles of FoodShare to macro-level impact, I discuss how the outcome of FoodShare's endeavors can be explained in terms of direct as well as broader systemic impact. After that by identifying major categories of stakeholders from different sectors, we can identify the organization's key brokering activities in relation to each of these stakeholders as programs in market and community lines were evolving.

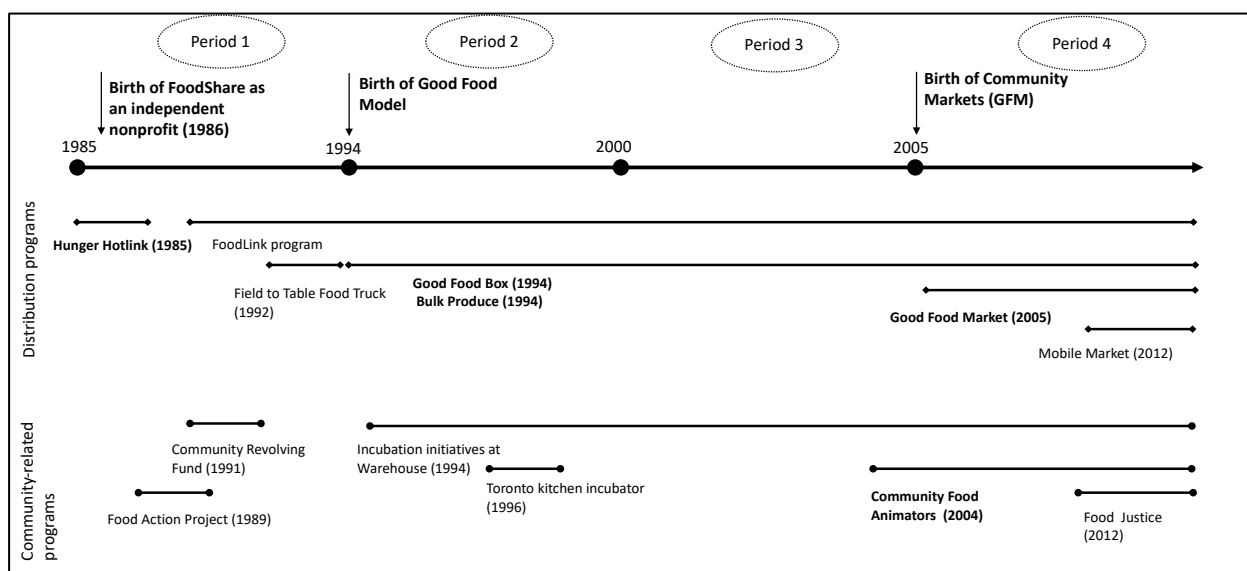


Figure 6 - Distribution of Market and Community Lines of Work

4.5 Nested levels of impact

In connecting brokering activities of FoodShare to broader level transformation, next step is to explore the impacts created by the organization over the years. As explained in the chronological story of the organization's life, programs and the way it approached the food system problems evolved over time. In developing and implementing community and market programs a wide range of initiatives, partnerships, and relationships were stimulated across the network that directly and indirectly influenced the target communities as well as public and social sectors involved with the food system. FoodShare's impact can be seen from three perspectives, all of which are important in explaining the underlying mechanisms for transformation. First, since FoodShare itself was designing, piloting, and executing initiatives; part of its influence stems from 'direct impact' through implementation of programs. Given its mission of 'Good Food for All', this direct impact can be characterized as the number of individuals influenced by directly benefiting from any of FoodShare's programs. Some examples are the number of people

benefiting from educational programs (e.g. food skills, educational workshops); GFB customers, institutional customers of bulk programs, people receiving employment in community gardens, youth benefiting from internship and training programs, among others. This aspect of FoodShare's influence also grew considerably as the scale and scope of its market and community models flourished over the years. For instance, Figure 7 illustrates the growth of fresh produce sales from its initiation. Despite the importance of this direct impact and its considerable growth over the years, it only captures the size and scope of individuals who were directly reached by different programs; but this direct impact was not the only or main reason why FoodShare was one of the critical actors in the food network.

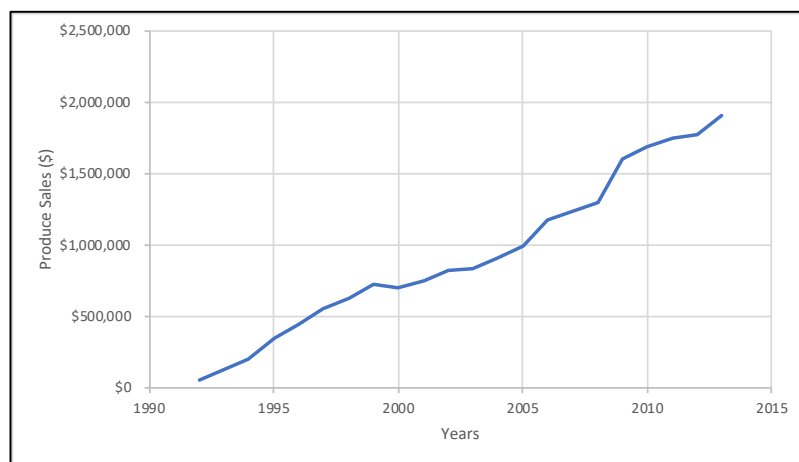


Figure 7 - Good Food Program's Sales Growth (1992-2014)

Second, a considerable part of FoodShare's work was coordinative, facilitative, and empowering with different groups of stakeholders, such as community agencies, farmers' cooperatives, and governmental bodies. In order to launch and expand its programs, several financial, material, and societal resources had to be mobilized. Therefore, apart from the direct

impact from programs, an integral part of FoodShare's influence was empowering and transformative to enable its partners to induce change. This indirect impact was also important, for it escalated the outcomes beyond single programs. Providing market opportunities for local farmers (period 2); incubating community entrepreneurs with resources and connections (period 2); active engagement with different governmental bodies (all periods); supporting institutional market operators (period 4) are some examples of this transformative influence. This indirect impact is critical, as transforming the food system is by no means a single-organization's job and this empowerment intended is to create capacity in the network of actors to stimulate change. When FS released its first strategic plan in 2009, it highlighted three priorities: 1) direct impact, 2) building community-based partnerships and influencing policy, and 3) support and infrastructure development. These strategic priorities correspond well to the two sets of impacts outlined here. While the first strategic priority focuses on increasing the number of individuals and organizations that benefit from the programs, the second and third strategic priorities are the indirect impacts FS was generating through transforming other stakeholders.

In addition to the direct and indirect impacts through its programs, the process by which FoodShare went about creating an innovative distribution model, operating, and scaling it up showcases a transformation process. As confirmed by FoodShare's former executive director, FoodShare's true impact lies in showcasing the processes toward a favorable future state of the local food system: "FoodShare cannot bring about transition to a local, sustainable food system all by itself. What FoodShare can do is incubate individuals and ideas and projects, model their integration, and offer a living demonstration of how such a food system might look and operate" (Field, 2006). Therefore, while each of FoodShare's programs addressed one aspect of

FoodShare's holistic approach to food system change, the Good Food Program and the pathway to create and operate it along with community engagements through community-related lines of work while invoking the same processes in other actors illustrate a transformative process of building an alternative food distribution model. This is the third and most important aspect of FoodShare's impact, as it made the organization go beyond being a direct agent of producing impact through service provision and come to resemble a social innovation R&D centre, creating what I call a systemic impact. Systemic impact in this sense can be defined as *"an innovative socioeconomic arrangement that in its creation and operation resembles a 'living demonstration' of what the favorable future state of a system may look like"*. For this reason, particular attention in narrating the periods above was given to GFP as an innovative distribution model. As described below, the market component was key in making FoodShare's work distinctive and impactful at the systemic level:

"I'm a big proponent of good food markets. Grab some good, mobile market and good food markets are all pieces of the same puzzle. It seems to me that this distribution model has grabbed the world's attention because it is a market model and a consumer model. It grabs world attention because other pieces that are outside that model don't [grab attention], like urban agriculture. It doesn't grab that attention until it becomes a market garden and then the world becomes interested in it. [This is] because it has pieces around employment, supplemental income; all other actors can see their role through it, an upper income person can get involved. And it's not just a low-income, poverty kind of project." (Interview #07)

Distinguishing FoodShare's influence in terms of direct, indirect, and systemic impact allows one to acknowledge the fact that the processes of going about forming a favorable transformed state of a system are as important as the outcome itself. This means that the processes of FoodShare's evolution while setting up this alternative model were as valuable as the direct impacts that emerged from this innovative model. In the next section I describe the mechanisms through which FoodShare was able to develop a marketplace model of food distribution for social

impact, and then I elucidate how these mechanisms emerged and evolved over time during each period in the attempt to theorize a process model of mobilization through brokerage.

4.6 Participants from community, market, and public domains

The historical narrative outlined above sets the stage for exploring the mechanisms by which a focal actor induces change by cross-cutting stakeholders to innovate a new model to address a societal problem. The overview of the narrative and its summary presented in Table 7 illustrate that over the course of these four periods, FoodShare engaged with *different* types of actors to implement *different* programs by adopting *different* sets of activities. Therefore, to be able to identify the mechanisms from the different actions that the organization utilized to stimulate systemic impact, the next step is to categorize the programs and actors that were involved.

In regard to the programs and initiatives, as explained earlier, two repertoires of interventions stand out in FoodShare's story: its alternative distribution model through designing an innovative marketplace to address the access and affordability issues and its adjacent wide range of community programs and initiatives to address aspects relevant to community capacity. As illustrated in Figure 6, in both of these areas—market and community lines—while some programs were smaller in scale and scope (e.g. baby and toddler nutrition) and were limited to a time period of a few years, some others were more foundational and remained as overarching programs and assumed different forms over decades (e.g. the Good Food Program). Having this in mind, while analyzing these two repertoires of interventions, it is crucial to explore who the actors were and how they got involved in each period in contributing to the advancement of FoodShare's market and community portfolios.

By analyzing the programs and interventions in each period, the different types of actors who were present in relation to different FoodShare's activities in these two repertoires of interventions are recognized. Figure 8 shows the range of actors that were involved in each period. Actors in this analysis are defined as any communities of stakeholders or organizations that are either contributing to and working with FoodShare in carrying out its mission or those that are influenced by FoodShare's actions. Since the end goal of this analysis is to explore the mechanisms by which FoodShare was working with these stakeholders, the actors are aggregated to illustrate broad categories of stakeholders at each phase, eliminating variations in each category. For instance, the City's different governmental departments, committees, or coalitions are all categorized as municipal government. Also, while the actors' presence and their connections with FoodShare are shown, the model by which FS was getting these actors involved is not shown and is discussed in the next sections, in which the mechanisms at work are elaborated.

As can be seen in Figure 8, in period 1 due to the initial mandate of FoodShare as a coordinator of contributions to food assistance programs, the organization was mostly working with potential donors from private and philanthropic sector as well as individuals to redirect them to food banks. Born out of a City-proposed project, FS was working closely with the City by reporting back on the state of food issues as well as channeling the grants to community groups through which it ran small community initiatives such as local buying clubs. With the launch of the Good Food Program's initial forms in period 2—the pilot Field to Table, GFB, and Bulk—FoodShare brought local farmers and producers into the picture while finding institutional buyers, such as schools, to form its early model of a produce marketplace. The produce

warehouse that was created as part of developing logistics for distribution programs engaged community members to incubate their food businesses or grassroots initiatives.

As the GFB and Bulk programs grew in Period 3, FS connected with a larger number of farmers and producers as well as individual and institutional customers. At the same time, by integrating different community programs (e.g. urban agriculture and skill building, as in the case of the CAMH project), FS invited institutional partners to join in community development work. With the launch of the animators' partnership, other similar non-profits also joined by providing community animators to bring numerous community projects to life in connection with community groups.

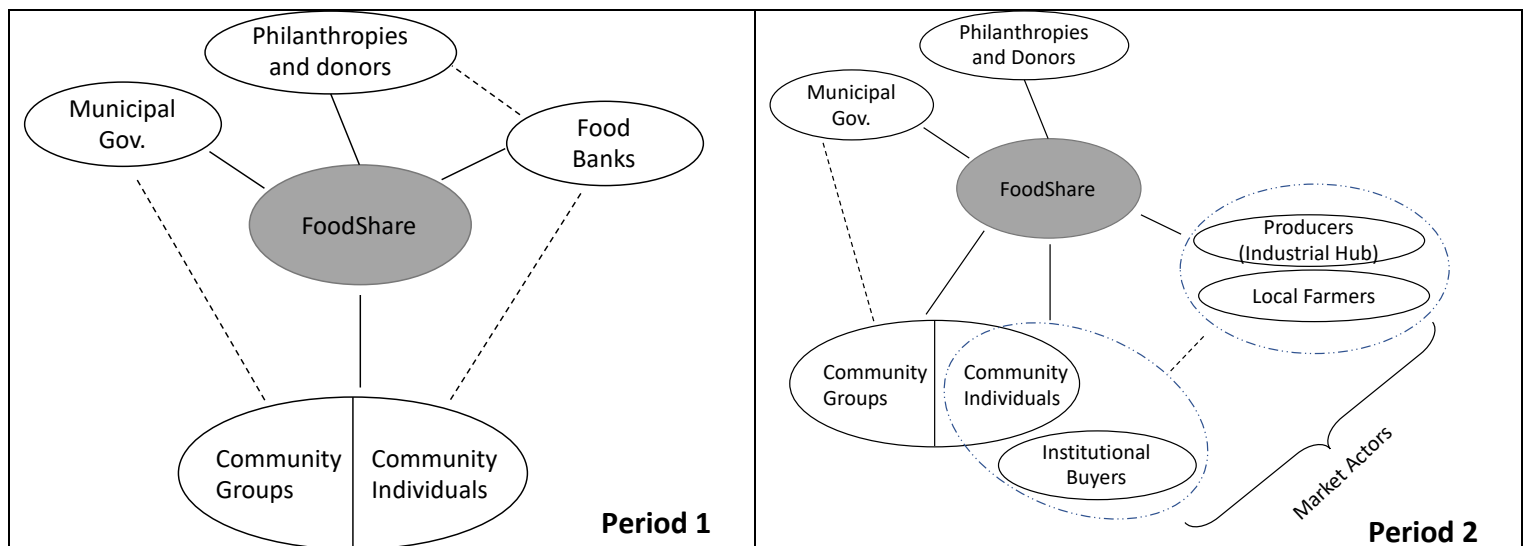




Figure 8 - Actors present in each period

Finally, with the launch of markets in period 4 and FoodShare’s move toward handing over markets’ ownership and operation to local institutions, agencies, and community agencies, a range of new actors was added to the market model. In this way, any partnering public or private organization, such as hospitals, schools, educational or community centers, or churches, among others, could engage as a market operator. As the goal was to position markets as community hubs, these actors were playing the dual role of market and community actors as they joined to run the markets.

While considering the categories of stakeholders that were engaged with FoodShare in different forms over these periods, I analyzed FoodShare's actions in relation to these actors and how it developed its market and community program portfolios. Following this analysis, I identified two sets of mechanisms that contribute to the evolution of a decentralized brokerage model for transforming the local food system. Consistent with the categories of actors outlined earlier, the first set of mechanisms were those in relation to actors with financial and material resources, such as governmental bodies and larger philanthropies, which I denote as "mechanisms in the realm of public and philanthropic actors". The other set of mechanisms that were identified were in relation to market and community works, and I refer to them as "mechanisms in the realm of community and market actors". In the sections that follow, I first explain each set of mechanisms and discuss how they were deployed to develop new forms of relationship and new models of connection to contribute to the innovative mobilization of resources, relations, and actions. Following that, I explain how these mechanisms unfolded during the four periods of the organization's life and situate them in the larger picture of transformation.

4.7 Mechanisms in the realm of public and philanthropic actors

Among the actors that FoodShare was involved with in different forms, governmental bodies and large philanthropic donors were always present influencing the programs and actors in the social and community sectors. In this section, I present the mechanisms that were identified from analyzing interviews and archival data on the interactions between FoodShare and these public and philanthropic actors (P&P actors). Table 8 illustrates the data structure for this set of

mechanisms. This structure is the basis for organizing the current section. Below, I explain each of the identified themes by referring to the first-order concepts presented in the table.

Table 8- Data Structure for Mechanisms in the Realm of Public and Philanthropic (P&P) Actors

Overarching Dimension	Second-order Themes	First-order Concepts
Interweaving of Public and Philanthropic Actors	Extending reciprocal interaction between P&P actors and community	1.1 Funneling flow of materials and financial capital
		1.2 Providing community outreach support for the City and philanthropies
		1.3 Directing use of underused public resources
	Co-creation of problem-solving and solution domains	2.1 Being a voice for expert opinions on food issues and advising policy
		2.2 Articulating aspects of problems and potential solutions from on-ground action

Despite the fact that interactions between FS and these actors varied depending on the type of governmental or philanthropic body, goal of interaction, and time period, these concepts were consistent and formed the basis of the inductive codes that emerged from this analysis. Therefore, each of the first-order concepts in this table reflects a broad meaning for various engagements between FS and these bodies at different points in time. While some themes were stronger in some periods or some relationships were deeper, other interactions were transient and dependent on a specific short-term partnership or grant. For instance, from early in the beginning, FS was one of the organizations encouraging formation of TFPC as a body comprising an array of civic and public representatives, and they kept their close relationship over the years. Here is the former executive director reflecting on interweaving with TFPC over the years of collaboration:

“With the food policy council, it was always like a volleyball game and we were responding to each other. Through all these years. Sometimes, we were serving [the ball], and they were catching and some other times they were serving, and we were catching. Many things could have not happened if we were not responding to each other.” (Interview #44)

4.7.1 Extending reciprocal interaction between public and philanthropic actors and the community

4.7.1.1 Funneling flow of materials and financial capital

As initially a coordinator of food assistance programs, much of the early work of FS involved redirecting donors and their financial and in-kind contributions to food banks or other organizations that were running charity-based assistance programs (period 1). This role was more a passive role, while as time passed it shifted toward a more active role in interacting with both of these kinds of agencies. At the same time, in the beginning, as a result of its mandate to research food bank usage, FS formed a close connection with the food banks and even played a strong role in fundraising for them by channeling resources from private and philanthropic donors to these actors. These early activities made FS a legitimate actor in redistributing raised funds to other organizations in need of them. As explained by one of the food experts regarding FoodShare’s funding scheme, “Compared to some of the smaller organizations, or the start-up social enterprises or businesses, FoodShare has more long-term donors.” For this reason, as this informant explained, they have always been in a position to link available funding to small grassroots organizations or projects.

In addition, from early on a more active part of FS work was to acquire government grants to run projects at the community level (e.g. the Food Action Project in period 1) or incubate community-based small businesses (e.g. community revolving fund in period 1 or the Toronto kitchen incubators in period 2). As opposed to passive channeling of information and resources,

these constituted more active channelling of resources for community projects. In addition, there were many instances and partnerships in which FoodShare worked with government or philanthropic bodies as a funder to scale up the programs:

“I think big shifts are coming when we are connecting with institutions. So when we’re connecting with Toronto Public Health as a funder, they all of a sudden made it really [big], they did a much bigger deal.” (Interview #06)

In addition to channeling resources to community projects, financial resources in the form of grants or in-kind contributions were also transferred to smaller community organizations through multi-partner projects or through animation of programs. This role included active searches for sources of funding or other resources while matching them with community projects. For instance, assisting local community organizations with finding the most suitable government or philanthropic grants and going through their application process was a common means of support from FS for local actors. It should be noted that this role was highly coupled with FS’s work in creation of market and community projects that will be explained in the discussion of the realm of community and market actors. Below, one of the former urban agriculture coordinators comments on this active involvement with the community to funnel financial resources for animating community gardens and markets in periods 3 and 4:

“We took that money and gave it to, I think, XXX [a local community organization]. [The money was coming] from the City of Toronto to animate these things. Animate community gardens, Good Food Markets.” (Interview #07)

4.7.1.2 Providing community outreach support for the City and philanthropies

Apart from benefiting community organizations through being a channel for resources, FS was also a support arm for these actors. One of the challenges for governmental bodies and philanthropic organizations was getting access to their target audience in communities for

different kinds of awareness and communication purposes. FoodShare's closeness to different communities and its network of grassroots local organizations, as well as its interactions through market and community lines of works, positioned the organization to be one of the channels for public and philanthropic actors to reach out to communities. Here is an example elaborated by a government body's representative:

"They are part of our communications outreach; we have a certain reach, and then they have a greater reach. Whenever we have an event, I send the event information to all the members of the Food Policy Council. The person from FoodShare gets that and can send it to their communications person, who sends it out to their list. So, they are constantly helping us to move forward on things, and to publicize things." (Interview #41)

Apart from playing this information-linking role in multiple forms, FS provided direct engagement opportunities for experts, food activists, and other public and civic representatives to connect with target communities. An example was incorporating newsletters and other educational materials with information about potential supports prepared by the government or philanthropic actors into the GFB and other market programs. Another example was the many occasions since period 2 in which FS used its marketplace model to help send messages to communities or, more importantly, directly link government representatives or experts such as dietitians with communities by using the community markets as a physical space for making this connection happen. Below is an example:

"With markets [we also meet] other food needs, other market animation needs as well. So, like [asking the community:] do you need to connect with Toronto Public Health to make an arrangement where Toronto Public Health will come and send a nutritionist to each of the markets once a season, or something like that. Another example could be, like, maybe children's activities from Public Health for pushing physical activity in the community. In the past, Food Share has connected markets with Toronto Public Health about nutrition. I think they did a little recipe demo and gave out the recipe. I think they were dietitians or nutritionists, so they would also respond to customer questions about their conditions or their food needs." (Interview #32)

Interestingly, this benefit was bilateral. Apart from providing better support for communities, FS benefited these public and philanthropic actors, particularly through enhancing government bodies' reach. This was because the GFP in all its forms, Box, Bulk, Mobile, and Markets, could reach communities on a more grassroots level than could government-run initiatives. The growth of FS's GFP models also enabled the government to promote health and food education on a larger scale (Scharf, 1999).

Moreover, FoodShare, sitting between the communities and these larger actors and running different grassroots projects on the ground, was able to showcase to actors who were further from the communities how the programs worked in reality, what their challenges were, and what potential solutions might look like. In this way, FS provided a space for experts, donors, activists, and public and civic representatives to connect and meet with communities and projects in person. Numerous bus tours, showcases, conferences, demo days, and national conferences are examples of such exposure provision for external actors vis-à-vis communities. Figure 9 is an example of an invitation to a tour moderated by FoodShare as part of the 2016 FSC national assembly in Toronto. Figure 10 is a photo that I took during this tour that presented diverse initiatives around the city. The photo shows one of the pilot projects FS and Food Strategy were experimenting with to set up market stands in subway stations.¹² The pilot project, which was experimented with in 2016-2017, was to set up market stands similar to FS's Good Food Markets in a few major subway stations in the city. The markets' operation and logistics were FS's responsibility using its GFP capacities. Although the bus tour happened after the time span of my

¹² I will discuss in detail this experimental aspect of FS's work when developing the grounded model in the last section of this chapter.

focus (1985-2014), FS's history is full of examples of providing a space for active engagement of external actors with community projects while providing outreach for both sides.¹³

Tour - A Tale of Two Neighbourhoods: Food Access and City Planning

Depart: 2:00 PM | Return: 6:00 PM
Tour will depart from the Oakham House at Ryerson University (55 Gould Street, Toronto, ON).

Join FoodShare Toronto's Debbie Field for a tour mapping food access in two neighbourhoods: Bloordale and Weston Mount Dennis. Drawing upon Debbie Field's 25 years of advocacy on food access and planning issues, the tour will focus on city planning as it pertains to food access and community services. This tour is co-sponsored by the Toronto Food Strategy and the Toronto Food Policy. Barbara Emanuel, Manager of Toronto Public's Health's Food Strategy and Jessica Reeve, Coordinator of the Toronto Food Policy Council will be on the bus to share information about Toronto Food Strategy's efforts to promote a healthy sustainable food system and Toronto Food Policy Council's "Food by Ward" research. Participants will visit Bloordale, a neighbourhood with a variety of convenient and affordable shops as well as the Dufferin Grove Farmer's Market, and then travel north to Weston Mount Dennis, 8 km away, where we'll see how few options there are for fresh and affordable produce. We'll also see the location of one of the longest standing markets in the GTA, the Weston Farmer's Market and visit a FoodShare supported Good Food Market at The Learning Enrichment Foundation as well as an example of the Grab Some Good TTC market, a partnership between Toronto Public Health and FoodShare. The bus tour will end with a dinner prepared by Field to Table Catering, a FoodShare social enterprise, and a tour through FoodShare's Community Food Hub to provide an overview of FoodShare's many successful programs addressing food access and knowledge.

Figure 9 - Bus Tour Event Invitation Hosted by FoodShare¹⁴



Figure 10 - FoodShare presenting a market to bus tour participants¹⁵

¹³ See for instance this report on another similar event in 2012 at which FoodShare was part of the showcasing tour: <https://sustainontario.com/2012/07/26/city-to-country-virtual-tour-5-rebuilding-the-middle-distribution/>

¹⁴Source:<https://foodsecurecanada.org/who-we-are/our-9th-assembly-resetting-table/program/side-events/tours-site-visits-around-toronto>

¹⁵ Source: photo taken by the author

4.7.1.3 Directing use of underused public resources

In advancing its repertoires of interventions and particularly in its community work, FoodShare closely worked with public sector actors to make underused resources in the city available to community projects. Most of the time these were in the form of land or physical spaces, which were essential components for making many community projects or markets happen. For instance, in the case of community gardens, working with relevant departments to allocate public spaces with potential for gardening projects was among FoodShare's activities (especially from period 3).

"Well, community gardening is another part; you try to get people to produce their own food. But they [FoodShare] had to work with the Parks and Recreation Department to make the land available. And then they had to work to find people who could give people on low income the skills to do the marketing." (Interview #30)

Another redirection of underused public resources was community markets in community housing projects in period 4 and later. In order to launch markets as close as possible to target communities, community housing buildings managed by the City were one of the most suitable locations. In cooperation with the Toronto housing department, spaces were allocated to markets inside community housing buildings in some priority neighborhoods. In this way, FS was exploring new actors in the network with slack resources that could contribute to formation of new community markets. Therefore, building on the GFM model, FS's innovation was to assist diffusion of the model into different neighborhoods by adding new types of actors on the public or community sides as well as creative use of their available resources. Figure 11 illustrates a Good Food Market operated by community volunteers inside a residential building.



Figure 11- A Good Food Market inside a Residential Building¹⁶

Apart from creative proposals for using public spaces for potential community development projects or markets, by closely working with government actors, FS was in a favorable position to match slack resources to projects and people. For instance, Toronto's amalgamation in the late 1990s and consequent cost-saving freed some resources in local government. Below, one of the experts from the government of the time explains how organizations such as FS were able to redirect these resources toward community projects. Again, this was not a passive redirection of resources but a foundation for creating new market and community initiatives as FS was evolving its repertoire of initiatives.

"The food people were well protected in the city, and there was still enough slack in the system that they [FoodShare and their food allies in the city] could make some resources available in the 90s [for their projects]." (Interview #30)

¹⁶ Source: photo taken by the author

This reuse of underused public spaces was not limited to running community projects. It also included the City's in-kind contributions to advancement of FoodShare's programs. With the launch of the GFP and its growth in periods 2 and 3, the importance of an industrial warehouse with facilities—e.g. walk-in fridges, loading docks, and storage spaces—became more crucial for FS's success. Over the years, FS moved its location and operations several times, and two of its locations were in city-owned spaces that were rented to FS at a minimal fee. For instance, "In 2005, FoodShare's location on XX Avenue was demolished, and FoodShare relocated to an under-utilized school property" (Archive #106).

4.7.2 Co-creation of problem-solving and solution domains

4.7.2.1 Being a voice for expert opinions on food issues and advising policy

FoodShare had a close collaboration with academics and action researchers as well as food activists and experts. In 2011, FS hosted Toronto's urban agriculture learning center, which integrated more than 4,000 resources. Similarly, over the years, FS was home to interns, researchers, and food activists to study food issues, the food system, and alternative solutions to these issues. This aspect of the organization's work was critical, as FS went beyond implementing the projects by constantly thinking about the bigger picture and contributing to the advancement of conversations around systemic solutions. This made FS a combination of "an actor who does the work" and "an actor who thinks about the bigger picture and contributes to formulating it". This constant action and reflection made FS a progressive voice in contributing to the ongoing articulation of problems and potential solutions around food issues. Numerous research articles, presentations, and reports were developed by FS's top managers, many of them in partnership

with researchers and food experts as well as policy advocates. As one of the food researchers explained, FS's perspectives on food matters were important input for the conversations at the city level:

"If Debbie [FoodShare's former executive director in periods 2-4] says something about hunger or about kids, you've got to take it, you have to take it seriously. She's dead serious and when she says something, people listen up. So, she was a phenomenal partner for the Food Policy Council."
(Interview #35)

Apart from developing ideas and communicating them through publications, reports, keynote addresses, and presentations in collaboration with other experts in the field, FS was an active participant in many cross-sector consultative cross-sector bodies and initiatives. Through engagement with these bodies, FS played a significant role in shaping different food-related policies at the city and provincial levels: "There is always a representative from Food Share on the Food Policy Council" (Interview #41). Table 9 gives a few examples of FS's involvement in such different bodies over the four periods. Here is how a policy expert reflected on FS's integral role in food exchanges in the city:

"They're a broker at the city level, so really advocating in the city with the Food Policy Council and others, councillors, for these [food] issues. They're involved in various networks, like Sustain Ontario and Food Secure Canada, and then, they have direct access to politicians, even at the province [level], and they developed great relations with provincial policy makers in health and agriculture. You can see them as a kind of central organization in the conversation about food security and sustainable food systems in this province." (Interview #33)

Table 9- Examples of Involvement in Consultative Initiatives

	Period 1	Period 2	Period 3	Period 4
Examples of consultative body, initiative, or research	-Toronto Food Policy Council (TFPC), 1991 - Coalition for Student Nutrition (CSN), 1991	- Ontario Public Health Association (OPHA) working group on food security, 1995 - Food 2002 policy consultative process, 1996	- Food and Hunger Action Committee (FAHAC), 2000-2002	- Student nutrition programs (ongoing from previous periods) - Proposal from an economist to the federal government to

				eliminate tax exemptions on food
FoodShare's Involvement	<ul style="list-style-type: none"> - FS advocated for establishment of TFPC and collaborated closely over the next periods - FS led CSN 	<ul style="list-style-type: none"> - FS participated as a member of the working group. Later published a comic book version of the report in partnership with York University - FS was highly involved in Food 2002 and launched its food policy project "Food 2002/2020" 	<ul style="list-style-type: none"> -FS members were highly involved in multiple reports by FAHAC 	<ul style="list-style-type: none"> - FS conducted research on student programs and released results - FS opposed the proposal by using data on access - Policy recommendations to all three levels of government

In addition, while constantly searching for long-term solutions, FS was an active player in advocating for these solutions. Incorporating policy work in its agenda, particularly in later years (since period 2), reflects this engagement with other partners to bring change at the provincial and national levels. While the policy advocacy aspect is not a focus of this study, it should be noted that FS's activities in this area played an integral role in forming the collective views on food issues that ultimately influenced market and community projects. Close interaction and experience with implementing the projects gave FS a legitimate voice in advocating for certain directions. Here, the same policy expert explains FS's role as a leader of the coalition for school food programs:

"[Part of it was] being the voice for community, but also using their relationships to create networks and coalitions. So, the school food work is a great example of that, where FoodShare was central in building a very strong school food coalition in Toronto, and then and now it is doing this work provincially and nationally. So, it has been able to bring its real experience, on the ground, into these conversations, which I think really is about legitimacy. It's like, 'We've done this; we know it's possible; this was our experience; this is why it's important; these are the people who are involved – real people in communities'; and it is creating a constituency for this work, at different levels – or knitting together a constituency." (Interview #33)

4.7.2.2 Articulating aspects of problems and potential solutions from on-ground action

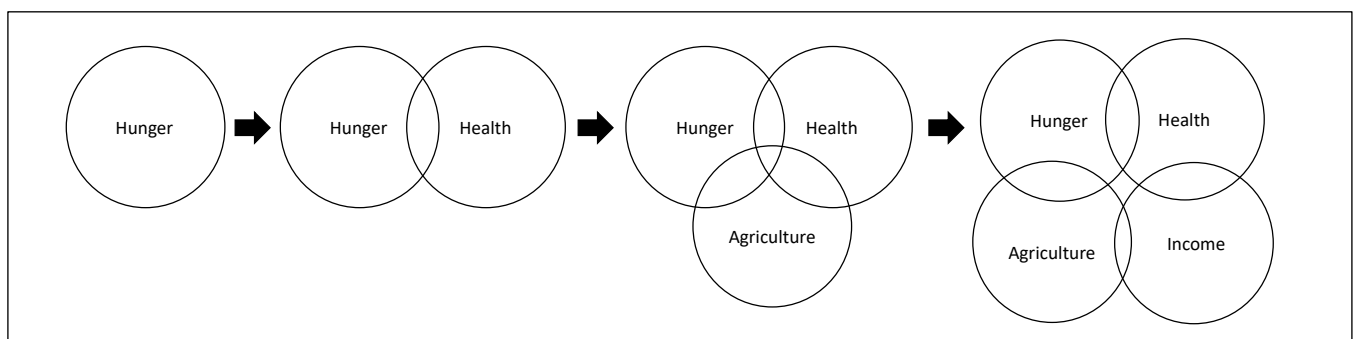
As illustrated in Figure 8 and explained in the narrative, during all the four periods, FS was working in parallel with government and philanthropic bodies as well as communities. From the very beginning in period 1, a responsibility of FS as a newly launched project was to “research the causes of increased hunger and food bank use to provide Toronto City Council with recommendations for action” (archive #91). This scanning of the environment to understand the state of food-related problems in communities became a part of FS’s work, for an actor cannot transform a broken system without knowledge of its incumbent state.

Direct engagement with communities through deploying numerous market and community projects positioned FS in a unique place to develop access and deep knowledge of both sides. Data on problem indicators—poverty, health, and hunger statistics; client personas; state of local grassroots capacity in each neighborhood—are some examples of this kind of community knowledge. For instance, by running mobile or community markets, FS had developed an understanding of the demography of neighborhoods and their preference of certain foods or services. Ethnic foods or foods compatible with different religious diets are some examples, and they were common in FS’s GFP arrangements. Given FS’s high ethnic diversity, providing culturally-appropriate food for communities became key in the GFP model. This in-depth understanding of the community side through direct contact and grassroots projects had two particular benefits. First, FS was able to develop programs and initiatives that were better suited to target communities, resulting in more successful community and market projects. (This will be discussed in more detail in the next section.) Second, as a result of this deep knowledge of community work, FS (and other similar organizations) gained a more realistic perspective on food problems and possible alternative solutions.

Developing this community-based knowledge and contributing to ongoing conversations with other actors, such as public and philanthropic actors, was a feedback mechanism by which FS was influencing the conversation around where to look for root causes and where to look for solutions. Here is an expert from a government body reflecting on this feedback process to design a new initiative:

"So, these concepts come out of a lot of consultation [with the community], a lot of partnership building, some really solid evidence-based research. So, it's not 'Oh, we have an idea! We're just going to do it!' There is a lot of groundwork that happens." (Interview #40)

Regarding the problems, by being a responsive and learning organization, FS developed its own understanding of the problem domains and reflected this in its program development. The best example is the creation of the three-circles Venn diagram discussed above. Figure 12 illustrates how FS's perspective on the food problem domains evolved through time as it was developing innovative forms for addressing them. This figure is inspired by the original Venn diagram developed in early 2000 at FS to better communicate its message to other actors to influence their perspective while measuring different aspects of its own initiatives.



*Figure 12- Evolution of Problem-solving Domains Used for Program Development
(Source: developed by author inspired by original three-circle Venn diagram by FS)*

In addition to understanding problem perspectives, by being involved with implementing at the grassroots level, FS was able to formulate its view of potential solutions for conversations on the big-picture level. Implementing programs through close interaction with communities assisted FS with developing the know-how and experiential knowledge for alternative solutions. This aspect of community-based knowledge—solution perspectives and know-how—was also a great resource for city and philanthropic decision-makers as well as researchers and experts who were in conversation about different forms of solutions. This is how one of FS’s managers described the exchange of community knowledge across community and other actors:

“We were developing resources – like, how to grow seedling sprouts; how to start a community garden. So, all of those resources support work on the ground, so that’s kind of one role – it’s sort of facilitating knowledge and knowledge exchange because we’re not making that information up out of the blue. We’re drawing on the collective experience of all this work across the city, you know, providing access to community groups and researchers, to each other, for research purposes, and community based participatory research.” (Interview #27)

4.8 Mechanisms in the realm of community and market actors

In the previous section, I elaborated on the mechanisms that were at work as a result of FS’s sitting between public and philanthropic bodies—actors with a larger pool of financial resources and influence—and communities. Other than these public and funding actors, with the launch of FS’s innovative market model in period 2, an array of stakeholders involved in its market line were added to the picture. Meanwhile, while FS’s progressive approach in getting communities involved had started from the early years of period 1. FS’s community work took different shapes over the later years while intersecting with market programs. In this section, I lay out the mechanisms through which FS got engaged with different actors in forming its market model and community line of work. I refer to these mechanisms as “mechanisms in the realm of community and market actors”.

As the name indicates, these mechanisms are the ones that formed the way by which FS developed and implemented market and community programs. However, the core focus of the analysis is how FS as an actor with brokering behavior was getting other actors involved, motivated, and active in the new market and community arrangements. Therefore, while a part of these actions was for implementing the programs leading to direct impacts, a more critical aspect of these actions was supporting and creating new connections and new modes of involvement in market and community work (systemic impacts). Here, FS's former executive director reflects on how the implementation and catalyzing roles went hand in hand in FS projects:

"I think 'catalyst for change' or 'change agent' could almost be the subtitle [of your thesis]. One of the things that I was really clear about – all of the executive directors at FoodShare, all of us have understood that – [was that] our staff were not just doing the work [projects]. They were catalysts for change. And this means bringing in the links they have, and sharing resources, and all that stuff." (Interview #45)

FS used three mechanisms while advancing its market and community lines of work for systemic impact. Table 10 presents these three mechanisms and the data structure forming these mechanisms. I call these three mechanisms: market brokerage, community brokerage, and platform brokerage. Market brokerage or creation of a brokered marketplace is the mechanism by which FS developed an innovative marketplace model with involvement of market and community actors. Community brokerage or co-creation of local solutions is the mechanism by which FS worked with community members and groups and other external actors to address root causes of food issues. Finally, platform brokerage or creating platforms of change that happened in period 4 is the mechanism through which FS attempted to make markets into community hubs and the actors operating them distributed brokers in their local neighborhoods. The rest of this

section is structured around the details of these three mechanisms. Following that I introduce a concept called “decentralized brokerage” which integrates these mechanisms and explain why this was a major mechanism at work in creating systemic impact in FoodShare’s mission.

Table 10 - Mechanisms in the Realm of Community and Market Actors

Overarching Dimension	Second-order Themes	First-order Concepts
Decentralized Brokerage	1. Creating a brokered market model (Market Brokerage)	1.1 Connecting with farmers at the personal level and transforming them
		1.2 Creating guaranteed market opportunities outside of conventional markets for farmers
		1.3 Closing the mindset gap between local farmers and the urban poor
		1.4 Developing deep understanding of individual and institutional customers
		1.5 Reconciling benefits to supply and demand sides
		1.6 Developing a novel unprecedented infrastructure
	2. Co-creation of local community solutions (Community Brokerage)	2.1 Bringing outside stakeholders (peer nonprofits, the City) to community projects
		2.2 Connecting community members/organizations
		2.3 Mobilizing existing community assets and resources
		2.4 Educating, skill building, empowering individuals (food, employment, running the programs)
		2.5 Incubating and legitimizing small community-based food businesses
	3. Creating markets as replicative platforms (Platform Brokerage)	3.1 Institutions become platforms for market projects
		3.2 Markets become circles to bring stakeholders together

4.8.1 Creating a brokered market model (Market Brokerage)

4.8.1.1 Connecting with farmers at the personal level and transforming them

The market model, as explained earlier, was initiated by a pilot project—the Field to Table truck—that aimed at connecting local producers with urban customers in underserved communities by using a moving truck; it later turned into the GFB and Bulk programs (period 2). While from the beginning, produce was sourced from both the provincial industrial food hub (the Ontario Food Terminal) and small-scale farmers, connecting with local farmers was a key part of developing the GFP. That was because its holistic approach to the food system, made FS well aware of and concerned about the viability of small farmers and the challenges they faced. From this perspective, the GFP was not merely about access and affordability but also about benefiting local and small-scale farmers who were distant from city market and its opportunities. In serving this dual purpose, connecting with the farmers and forming personal relations were essential in bringing them to this newly formed market. Vignette 2, presented earlier in the narrative, reports some examples of occasions in the early years (1992-94) on which the founders of Field to Table and the GFB reached out to these local farmers, created personal connections with them, gained their trust, and contributed to their advancement.

Building these relations in the 1990s was not an easy task as many of these local farmers were isolated small-scale farmers with limited connections to the city in terms of both mindset and market access. For this reason, the GFP market model and, more importantly, its social mission distinguished FS from the regular industrial wholesalers to which these farmers could sell. In this way, the GFP and the way FS was operating it brought both the producers and

customers ignored by the conventional industrial supply chain to the market through FS's innovative market model. As a food system expert commented:

"I would say FoodShare formed brokerages with farmers who you would least expect to be in favor of this. Not socially conscious farmers, or [farmers who would consider] helping poor people with extra food. Mennonite farmers from around Waterloo were interested in local markets. All the other, almost all the agriculture in Ontario is industrial agriculture for export. Or it is commercial agriculture. So, these were the only guys at first. And so, with all the early stuff [the Good Food Program] FoodShare was [working with] people who were unusual in some respect. They were either Mennonite or they were cooperative people." (Interview #30)

At the same time, connections with these farmers were made at the personal level. This benefited FS's innovative market arrangement in two ways. First, FS's market model aimed at benefiting a niche set of supply-and-demand actors by taking their limitations into consideration. Therefore, having market interactions at a very local and individual-level led FS to develop a deep understanding of the farmers and their needs. Second, having close relations with the farmers was important to building an enduring partnership with them and humanizing the market exchange. This deep connection in the early years even helped FS to contribute to farmers' learning process and transformation to better fit the urban market (see Vignette 2). Here the same expert explains the importance of personal relations in connection with the farmers:

"So, it [purchasing from local farmers] was all done by personal relations, it wasn't putting it at auction or going on this website or whatever it's called on the internet or anything like that. They were all formed by personal relations. And XX [lead co-founder of GFB and Field to Table] was really key because she knew a lot of farmers because she'd been involved in the YY's Coop." (Interview #30)

4.8.1.2 Creating guaranteed market opportunities outside of conventional markets for farmers

Another set of practices by which FS created this new market arrangement was by providing market opportunities for participating farmers. This was due to two kinds of actions. First, the early founders of the GFP created this tradition of making deep connections with farmers and

caring about them which has remained with the organization to this date. This close connection with farmers made FS more than just a produce buyer by being a supporter and provider of other opportunities outside its own market transaction. An example can be seen in Vignette 2, which reveals how FS connected the isolated farmers with Whole Foods as an industrial buyer, resulting in a wholesale contract between them that lasted for decades. Similarly, there were many instances in which FS connected a farmer or a community of farmers with a certain industrial buyer or other actors in the supply chain to help the farmers. Here, the GFP manager explains how they supported small-scale farmers by connecting them with other private-sector actors:

“[There’s this] small-scale farmer we buy from. Because of us she has been able to change lots of things economically for her and her family. Also, we gave her different contacts that she would not have otherwise. We were able to open her market up. Or we gave her a few referrals that we work with like 100km Food, Fresh City Farms. They are like our connections; they work within the private sector, but we partner up with them sometimes. Another example is [that] some of our farmers don’t have the capacity, so when the 100km Food goes around that area to do the pickup they’ll piggyback their order and they will charge us a delivery fee.” (Interview #08)

Second, working with FS’s GFP gave small-scale farmers the opportunity to sell their produce regardless of scale while having a guaranteed buyer. Small-scale farmers such as family farms had a hard time selling their produce through regular channels because of scale or even industry relations. FS as a buyer did not have such limitations and worked with farmers of all kinds and sizes.

“For example, our lettuce supplier once told me, ‘When we go to the food terminals sometimes it’s a closed market.’ It’s challenging to come in and open up a market. Because most of these relationships are built a long time, so it’s challenging for them to get into the market and create that trust, create that connection with the supplier. But us, we are open to other avenues and suppliers. We are not like just with one supplier. So, you know we like to always give opportunity to somebody who’s coming into the market; test their products; see if it’s something valuable for our [program], and recipients that we would serve.” (Interview #08)

At the same time, because of the ongoing nature of the GFP and the model's being flexible in types of produce, FS could guarantee certain volumes upfront or even absorb farmers' surplus produce into its weekly purchase. The following comment demonstrates how FS was opening up opportunities for organic farmers when they were not prevalent in the 1990s and had a hard time finding a market for their produce:

"[FoodShare] was triggering, and it's working specifically with certain farmers, organic farmers and the like, to grow foods for their Good Food Box, for their programming. So, they are pushing back, and saying to the farmers, 'We will buy this. We will guarantee that we will be able to buy X amount of your product if you grow it this year.'" (Interview #30)

4.8.1.3 Closing the mindset gap between local farmers and the urban poor

Particularly in the early years of the GFP in mid to late 1990s, one of the major roles that the market program played was bridging the mindset gap between local farmers with urban customers. In the case of the farmers, making them aware of low-income customers in the city was a major mindset shift. This bridging was not only through constant conversation with these farmers about FS's mission but also by providing physical space for in-person interactions between some of these farmers and target communities. Vignette 2 gives an example of this in-person interaction showing that it was common for farmers to stop by at FS's warehouse for a meal while interacting with FS's clients. These simple interactions made farmers more socially-aware of these customers and more interested in keeping their partnership with FS going.

It should be noted that perspective change was not merely done through FS's program. Other non-profit food organizations as well as food system activists were also making attempts to promote farmers' markets in the city in the 1990s. This was to experiment with the idea of bringing local farmers to farmers' markets in the city while making them more accessible for low-

income customers. A former TFPC member explains what the farmers' perception of the city's low-income population was in reality and how 'careful nursing' was needed to make the farmers interested in the GFP and similar market arrangements in the city:

"[The farmers] didn't even know [about the city's poor]. Like they thought everyone in the city was rich. And if you talk about ethnic food, [They would] say 'What do you mean ethnic?... So, it took a lot of careful nursing to get the farmers interested [in the city's farmers' markets]. [We would] try to convince them they should come to a farmers' market [in the city] because they could get closer to the full value of their food. [We told them,] 'We're trying to serve low income communities.' All the people I spoke to, their knowledge about what Toronto is like and what the poor neighborhoods of Toronto were like was from watching US crime shows [which is far from the reality]." (Interview #46)

Another aspect of changing farmers' perspective on urban markets was making them aware of the diversity of customers and their needs in the city, including ethnic or certain religious-appropriate foods. Through years of trial and error with different communities, FS learned the importance of taking careful consideration of this diversity for success of its programs. Therefore, apart from healthy and affordable, being culturally appropriate became an inevitable part of all models of the GFP. For instance, there were occasions when specific items were added to boxes because of a particular ethnic or religious holiday; or later, when markets started to work with FS, it was constantly receiving feedback from the market operators to customize their sales. FS's ability to customize to diversity within the city was another pathway for opening up new market opportunities for partnering farmers. The following comment shows how FS's model was bridging solitudes and providing new markets for small-scale farmers:

"You got farmers who didn't know anything about what city life is like. They didn't know that there are people that have a religious principle about eating something. They're all in these totally overcrowded markets and they couldn't think, 'Well if I do well, I have a unique market.' Unless there's a brokerage, nothing happens because the solitudes are so powerful. So, you need people to break through those solitudes. Food Share had to do that to build their box [the Good Food Box model]." (Interview #30)

4.8.1.4 Developing deep understanding of individual and institutional customers

As explained in relation to the realm of policy and philanthropic actors, FS's close interaction with community members and groups nourished a deep understanding of communities, problem domains, and alternative solutions. This close interaction with communities was also happening through constant experimenting with different GFP models and different aspects of Box, Bulk, and later community markets and mobile markets. The resultant deep understanding was also a process by which FS was able to improve its market-based response to the problems of food security. Receiving constant feedback from the success or failure of pilot projects and using it to design new models under the GFP umbrella was an indispensable part of scaling up market models. As one of the early founders of GFP explains:

"[Innovation can happen] from an understanding of people too. I learned a lot [through running Good Food Box]. You know, I learned really a lot about people. I learned that people should have the best food." (Interview #23)

One example of this knowledge was knowing individuals in their capacity as customers. For instance, understanding the delicacies of working with low-income communities was a critical piece of the puzzle that came to the surface from the very beginning. Building a market arrangement that exactly resembles the regular industrial market and yet is universal, while encouraging participation of all customers from different social and income levels, was one aspect of this delicacy. FS's dedication to high-quality produce, even inclusion of luxury items in boxes at times, was a result of understanding that customers in this arrangement should be treated with extreme respect, as in any other market. Here is an example of learning this notion from experimenting in the early years:

"The first guys who came to support FoodShare were very commercial and industrial farmers who said, 'Why don't you get rid of [our ugly food]? We'll give you a really like rock-bottom price for this food that's shaped out of the ordinary.' It seemed very logical to Food Share. You get this low-cost food and you could drive it into the parking lots of the big social housing projects where people are

*on low income and, say, instead of paying \$2.00 a pound for apples you can pay .50 cents a pound for apples. Well about as close as you can get to revolution happened when they brought that food under the parking lots. 'Do you think we're pieces of ***; you're giving us this ***?' People were offended beyond belief. It didn't take very long for them to figure out [laughing], the people we're trying to help don't like this." (Interview #30)*

In addition to experimenting with different forms of running the GFP model (periods 2 and 3), community consultation for starting each of the good food markets (period 4 and after) was another process of creating this understanding. For instance, I shadowed some of the initial steps for creating a community market in a new neighborhood that included the city's community housing projects. I witnessed three consecutive meetings in this process. The first one was between representatives from the Good Food Market team and Toronto community housing. The goal of this meeting was to understand the neighborhood's demography, type of buildings, other ongoing community projects, and the past successes or failures of those projects. During the meeting and following it, GFM's coordinator and the team were actively collecting data to better understand the needs of the target community and find the best form of GFP (box, market, mobile) that could work in that community. As explained by GFM's coordinator to the public housing's representative:

"In terms of the Mobile Market program or the Good Food Market program, we would still consider both until we know enough about what's needed there. Like, if there are communities outside of this area, we would still be willing to [contribute] and interested to speak with you about how we could serve your community." (Field note 2017.09.19)

Such was the case for institutional buyers as well. The GFP's bulk produce model was using the same infrastructure to sell in bulk to institutions such as schools or hospitals. Mostly, institutional buyers were using the produce bought from FS to run a healthy meal or snack program in their organization. Through its other programs (e.g. school food programs) FS was

able to get closer to the people in charge of these programs and understand their needs and challenges.

“[Through bulk sales] FoodShare has helped the school food programs get out of the purchasing and the time. Like, it would be a teacher; it would be a volunteer. It solved a little problem.”
(Interview #23)

4.8.1.5 Reconciling benefits to supply and demand sides

An important aspect of the GFP is incorporating benefits to both farmers and customers. As explained earlier, produce is bought at market price from farmers. Buying at market price from farmers and selling to customers at a considerably lower price than regular retail price is a challenging task. That is why regular farmers’ markets are not generally viable in low-income neighborhoods. While industrial retailers may add up to 70-80% markup to the produce, the GFP markup often stays around 30-35%, depending on the model (mobile, box, etc.). This number varies across locations and might be even lower for particular communities or mobile markets in those neighborhoods. Therefore, being able to design and operate a model that while targeting the low-income demand side, meets the market price on the supply side is a key characteristic of GFP. This is why such a model needs to be operated by a nonprofit actor that is able to raise private and philanthropic funds to support residual infrastructure and logistics costs. A discussion paper published by the Metcalf Foundation on the state of the province’s food policy agenda confirms the attempts by FS and similar organizations to reconcile these two goals:

The work of organizations like Just Food in Ottawa, FoodShare and The Stop Community Food Centre in Toronto, and Huron-Perth Farm to Table has demonstrated that supporting local farmers and feeding hungry people are not irreconcilable goals. Menu 2020 Report (Baker et al., 2010)

Therefore, FS and its innovative market arrangement played an intermediary role without which local and small-scale farmers could not reach out to these target customers. This benefit

was in addition to opening up new market opportunities for these farmers. FS's program made the market interactions feasible and economically viable by enhancing the variety and scale by adding different small-scale farmers' produce together. Below, one of the GFP's managers explains how FS is making an arrangement advantageous for local farmers while benefiting customers on the community side.

"For example, for a farmer to come and sell at a Farmers Market, he has to make a huge sale as a [single] market. For example, when we made the Good Food Market, the average person spends around \$5.00. So, for a farmer to travel, [spend] his time, all the logistics, it's not good sometimes just to sell one product! And, they don't have help. But if he drops it off over here [FS warehouse], he has to do one trip, maybe he can do a huge order so then he won't have to come next week. We will have the product for two weeks. So, it's economical for him and a benefit for us because we all have the product and then with our distribution system, we can send it to the communities who really need the product but otherwise would not have access to those produce. But through us they would have it." (Interview #18)

Apart from GFP's model that reconciled benefiting customers and farmers, in many instances FS's U-direct interactions with communities on both sides opened up a new niche market partnership. An illustrative example is explained in the vignette below, where FS mediated creation of a long-term market partnership with a growers' association for a very niche use: small apples for school snacks.

Vignette 4: Win-win-win story of small apples

Apples are graded based on their size and color to be sold to the fresh retail market. Apples that don't meet market criteria are downgraded to other market categories of sauce, baked products, juice, and dried fruit, among others.

One of FS's bulk customers for apples was schools across the city-run school programs. FS was looking for smaller apples as more suitable for young eaters at schools. A partnership was formed during FS's site visits and conversations with Norfolk Fruit Growers' Association (NFGA), a large agricultural co-operative that could use this opportunity to sell their below-grade apples to FoodShare to be sold to schools' snack programs. In this way, Norfolk Growers' Association (which has more than 500 members) was able to sell some of their smaller fresh apples at a better price. And at the same time, FS found a perfect supplier for well-priced small apples for which they had a huge customer pool at schools.

The Association agreed to package these small apples in bags of 50, which was more suitable for FS's handling and logistics. In an interview in 2016, Tom O'Neill, General Manager of the NFGA explained how this partnership was a win-win-win for all:

"We move a lot of smaller fruit through FoodShare that would normally go into juice. It's the type of apple that suits children, who don't need a big apple, but gives us an outlet with more of a return to the grower," he says. "And we're creating a future consumer. If we get kids eating apples young, maybe they'll eat them the rest of their lives." (Ontario Apple Growers Report, 2016)

The partnership made economic sense for apple growers, and it was a favorable opportunity for FS to have access to a well-priced item for its niche market of school programs.

One of my interviewees explained how FS's role was critical in making this happen:

"Food Share has played that role of making a new supply chain as well. It has been interested in healthier foods for kids. They are using, for example, LFP certified local, sustainable apples from North County, the small-size ones that would usually go to processing. Kids really find them too big! They can't hold them in their hands; they take two bites and they've had enough. But these little apples, which otherwise could have gone for very low cost, can now be sold to FoodShare at a reduced cost. But yet they are getting a sustainable product. And they're able to educate the kids about eating good food. So, there is a whole feedback cycle that you're talking about. But we are we are still very much at the champion stage. And if for some reason FoodShare didn't have funding and weren't able to purchase those apples, the system would fall apart."

Sources: (Food hub case study by Cassie Wever, 2015 (Wever, 2015); Ontario Apple Growers Report¹⁷, 2015; Interviews #41, #27, #08, #34)

4.8.1.6 Developing a novel unprecedented infrastructure

For this market model to work, the presence of both sides of production and consumption was a necessary part of the story but not sufficient. Creating and managing the underlying physical and non-physical infrastructures was also a key process contributing to the creation of the GFP innovative model. This infrastructure was built over the years, as different GFP models were evolving. Physical infrastructure refers to all the physical assets that contribute to

¹⁷ Available at: <http://onapples.com/blog/apple-co-op-supporting-farmers-for-over-100-years.php>

purchasing, handling, and transportation from the point of purchase to the point of sale. Industrial warehouse, trucks, storage and cooling facilities are some examples of this physical infrastructure. Non-physical infrastructure refers to body of rules, procedures, and capabilities that complement the physical infrastructure and govern the smooth operation of the model. The farmers' relation system, box and market launch manuals, the volunteer management system, the community markets coordination system, and the financial management system are some examples of this soft infrastructure. Being in the food system space made this process even more important, as reflected on below:

"The logistics were beyond the logistics that a business needs to deal with, much more complicated. When you say, 'Field to Table' or 'Farm to Table', what's the little word in the middle? 'To' !! the middleman is a big job in our food system because food comes from a long way off and it takes a lot of handling to get it here and it doesn't just come from the field to the table. Infrastructure is a big deal. FoodShare understands it because they've been in the business of brokering, you can really call it, they're in the business of building the logistics of a local sustainable food chain for people on low income. They were the first people to try to build this infrastructure." (Interview #30)

Acquiring the physical assets and developing the backbone know-how to run the logistics behind the market was a central and important bridging role of FS. The nature of the GFP was a mission-driven market, combining social goals into a common practice of private markets. It was a hybrid model for running a business (even a not fully economically viable one) within the legal and financial structures of a nonprofit. For this reason, it was not in any part of the sector's mandate to build such a market infrastructure and operate it. Therefore, to bring the model to life, FS not only bridged the communities of the supply and demand sides, but also developed a combination of business- and social-sector connections to build needed infrastructure over the years. Here, one of the food policy experts reflects on how FS was a pioneer in building a market infrastructure that no other actor was willing to build:

“FoodShare had to bridge between two communities that would never have had any reason to ever meet each other. Farmers and low-income consumers. And there’s nobody in government was willing to do that [building this infrastructure], nobody in business was willing to do that and nobody in traditional charities was willing to do that. They were the only organization willing to do that. That is fundamentally a brokerage or infrastructure building job.” (Interview #30)

In addition to the logistics and physical infrastructure, the financial aspects of running the market model also formed part of the soft critical infrastructure. Given that produce was bought at market price but sold as low-price retail, a great part of the costs needed to be covered by other resources. This remainder was paid through philanthropic grants and by individual donors. Creating a system of continuous funding and managing the use of raised funds in the GFP model was another part of building the soft infrastructure behind the markets.

“In the box model, people always paid for their food, but they didn’t pay for the transportation [and other costs]. It’s a subsidized model, but I don’t think we should be apologizing for that. I feel like social enterprises in a nonprofit setting don’t necessarily have to be completely self-sustaining. I think FoodShare is a good model because it has wide funding support. You can do the best with your business-like things, but they don’t have to be completely a business because you are doing so many other things at the same time.” (Interview #23)

4.8.2 Co-creation of local community solutions (Community Brokerage)

4.8.2.1 Bringing outside stakeholders (peer non-profits, the City) to community projects

FS had a unique position in terms of being close to small and local community projects while having a well-established connection with larger non-profits and City bodies. Using this position, FS was actively connecting community groups and organizations to stakeholders outside of each community with the goal of bringing scale and exposure to community projects. Bringing in these actors had two benefits. First, due to resource funneling, as explained earlier, community projects could scale up. More importantly, FS stimulated direct involvement of social and public actors in community projects, making them ‘a big deal’ and stimulating replication of these projects in other communities in a way that would lead to a system-level change:

“That is definitely FoodShare’s role to act as a bridge, a linker, like making this [a community project] a bigger deal in the world. This is where we see our impact, that’s our ability. The local community food program doesn’t have the ability to go talk to Toronto Public Health or the ability to talk to TTC [Toronto’s public transit company] about making this a system change.” (Interview #07)

Another aspect of this process was supporting cross-actor partnerships with focus on community projects. There were many instances in which FS bridged larger actors to form partnerships with multiple larger nonprofits involved. As explained below, FS was well aware of the fact that changing the food system is not a single organization’s job. By bridging actors to community projects, FS was trying to make the projects sustainable over time and to scale them up:

“They were not a market brokerage model, but a community brokerage model. There is a program called Better Beginnings; and it is for women who are pregnant, going to a community location, and they learn about nutrition and they maybe get healthier food while they are pregnant, and then they come back after the baby is born. And it eventually was funded across Canada, but the very first program was a partnership between a dietician at the City of Toronto, FoodShare, and The Stop, when it was still Stop 103 – in fact, The Stop played the lead, not FoodShare. But FoodShare played a broker role with the city. So even before we were playing a brokering role with farmers, we were playing a lot of brokering roles in the community.” (Interview #43)

Apart from connecting external stakeholders to community organizations for local projects, FS also got these actors (e.g. other nonprofits or City departments) involved in its own community or market programs. One area of such involvement was supporting community programs with certain expertise to complement FS’s impact. Connecting nutritionists or chefs to community agencies that ran the markets to hold workshops or answering customers’ questions are examples of bridging expertise to community projects. Another example is described below; in it, governmental support is used to increase community participation in FS’s initiatives:

“And also, we do workshops with communities about diabetes, about food and nutrition for low income families. And for people to come and participate in those programs, [we work with] Toronto Public Health [which gives out] \$13.00 coupon that they can cash to a small Good Food Box. And then we deliver those orders.” (Interview #08)

4.8.2.2 Connecting community members/organizations

Bringing external actors to community projects and connecting community members with organizations outside their community are only one aspect of community bridging. In each community or neighborhood there are multiple organizations or community groups not aware of each other or connected. Another aspect of FS's bridging was to connect community actors including individuals, community groups, or organizations within each neighborhood with each other. This community bridging happened along two lines: first, creating cohesion and connection between individuals who participate in community initiatives or markets; second, connecting community organizations and groups to develop partnerships and collaborations.

Connecting community members usually occurred through FS's programs. Both community- and market-related projects had a strong community-building component. From the very beginning with community action projects (period 1), with initiatives such as stimulating buying clubs or group trips to U-pick farms, FS was providing opportunities for people to connect. This became more structured through a wide range of other community initiatives, such as educational and cooking workshops or youth internship programs (period 2), and many community garden initiatives (period 3). Even with the launch of Good Food Box (period 2), boxes were delivered to a community coordinator, usually a volunteer to collect money from residents and work with FS for delivery arrangements. The mere fact that community members needed to get together to be able to buy GFBs in their neighborhood was the start of connecting community members through market programs. With the launch of Good Food Markets, which provided a physical space for individual members to buy produce in their community, this aspect became

stronger, and markets became a place for building social capital. Below is an example of the role of markets as community building spaces:

“The stories that we hear about the transformation of a lobby into a market – like, a fresh marketplace – where neighbours are meeting each other and making purchases. I know firsthand, like, having a little one – but taking your kids grocery shopping isn’t the easiest thing. Taking them to the foyer of your building or to a park nearby, and to know that they could run free or mix around as you make selections – I love that it creates this interesting space. So, addressing the idea of socialization, and creating spaces for people to connect. We’ve heard stories of people being on the phone, calling their neighbor on the 13th floor that can’t get down, to say ‘What do you want me to pick you up?’” (Interview #27)

Moreover, before setting up new projects in each community, a common process was going through consultation conversations with community organizations and members. Therefore, FS’s projects provided a reason for community organizations to act jointly. Many of the community gardens and markets that were animated in communities were following this process of bringing community agency from existing local organizations. In FS’s words: “We also helped animate the Mobile Good Food Market through setting up community meetings, supporting consultations, and working to form local partnerships” (Archive #210).

By participating in consultative processes many of the community groups and individuals could connect with each other for advancing other community initiatives. Apart from providing physical spaces for connection, FS was acting as an information hub about different groups and their activities while actively inviting groups with similar initiatives to incorporate their activities for higher scale and impact. Here, FS’s former executive director suggests how FS continued playing the clearinghouse role that was originally mentioned in FS’s founding documents:

“Let’s say some people want to do a community kitchen in the neighbourhood, but they don’t know each other ... Or we need to go to the school board to ask for free space. So, I think we always continued to play that role ... and you know, ‘a clearinghouse to support the community and their efforts,’ right? Again, bringing people together who would not know each other otherwise, and

helping them solve problems that they might not know about without FoodShare playing that role in the middle." (Interview #43)

4.8.2.3 Mobilizing existing community assets and resources

By implementing projects in the communities and also connecting community organizations, resources that already existed in communities were shared and mobilized across different community actors. An important part of community consultation processes was exploring existing community assets and their alternative uses. For instance, in the example of FS's collaboration with Toronto community housing, a part of the community discussion was brainstorming and searching for public spaces that already existed in the community or agencies that were potentially interested in hosting the markets. This process was FS's attempt to pursue the projects in resource-constrained settings and trying to leverage these resources through collaborations and community building. FS described its role in a community meeting's synopsis as follows: "We facilitate community-building processes that are inclusive, focusing on the assets and resources that exist within the community" (Archive #255, Consultative meeting synopsis). Even in the absence of a formal partnership, community members were encouraged to look for available resources in the community to keep the programs running. For example, in a neighborhood with no GFB delivery, volunteer coordinators persuaded a local church to allow them to use the church's basement as a drop-off point.

In addition, in later periods, FS moved toward stimulating community agency in developing the programs; and as a result, more local organizations got involved in developing or running the programs (periods 3 and 4). The process of launching and sustaining Good Food Markets in a new location is a good example of mobilizing already existing community resources. In particular, as

described above, FS acted as a backbone for the local organizations that were operating the markets rather than running the markets itself. In this way, the resources owned by these organizations were utilized in running the markets. These resources were in the form of material, financial, and human resources. Physical spaces in public or social organizations for running the markets, volunteer market coordinators, and financial contributions of these organizations in the form of coupons or running the budget were some examples of such resource mobilization within communities. The manager of a successful market located in a college explains the important role of existing institutions in resource allocation for the markets' success.

"The fact that the student association has now started running their own Good Food Markets is a huge success; because that's an institution that has a budget and can allocate resources to running the markets. And we're trying to figure out the best sustainability model for the coordination of this market." (Interview #34)

Similarly, the presence of a form of market (box, market, mobile) in a community provided the opportunity for other initiatives to find a platform to grow. Human or material resources that were allocated to running these programs were shared with other initiatives. Therefore, community actors could explore the resources that were not explicit to them before. Here, the same manager reflects on an example of sharing the market's space with another social enterprise in the community while explaining how the market helps them share the existing knowledge and learning on running the markets with other community groups:

"We would welcome new organisations that want to set up a Good Food Market. We would welcome them here to come and shadow what we do and learn a little bit. Likewise, we would welcome any individuals that wanted to sort of get trained a little bit. [Good Coffee (pseudonym)] is another social enterprise that works with us. [Good Coffee] is a program that employs people with developmental or intellectual disabilities. They partnered with the Good Food Market, because we're there every Wednesday with a bunch of tables, and they can come and join us. And they offer something that we don't sell. So, they appreciate our visibility; the Good Food Market is fairly visible at [College's Name]." (Interview #34)

4.8.2.4 Educating, skill building, and empowering individuals

In addition to creating value for individuals and community groups through connecting them, a significant portion of FS's community work was dedicated to skill building, training, and creating employment capabilities for individuals. The goal was to develop a deep relation with individuals to empower and trigger behavioral change. This was a process that the community programs were pursuing in parallel to the distribution programs. The underlying logic was that through the GFP model, FS is able to improve access and price in communities. However, in order to change individuals' behaviors, programs should engage with people at the personal level and empower them with skills and capabilities. Therefore, individual-level empowerment aspects of community programs were to balance "thin contact with many people" through market programs with "deep contact with few people" through training or empowerment programs (Interview #44). Apart from direct workshops or educational initiatives, many individual-level outcomes were attached to participation in community programs that generated job training and opportunities. Developing skills in areas such as urban agriculture, cooking and industrial catering, warehouse operations, or sales and marketing in markets are some examples of empowerment through community programs. Another example of influencing few people deeply is illustrated below in the case of a youth internship program that was supporting other programs' operation while providing internship and training to youth in target communities.

"We also used to have a youth employment program called Focus on Food, and Focus on Food hired – it was federal funding – and we would hire between 10 to 12 youth between the ages of 16 and 30, and they would work in our Good Food programs, our administration team, Urban Egg, or kitchen program, and so they would be placed in a different area; they'd receive life skills training and supports, and it was all year round." (Interview #17)

Another aspect of development and training through FS was directed toward community organizers, i.e. individual volunteers or partnering community organizations. As part of its support for handing over agency to community in many of its community or market programs, FS was running workshops and connection events. These initiatives were a means for creating a network of coordinators or organizations across communities. Facilitated workshops for GFM operators and connection events for school food program coordinators are two examples of this kind of initiative. The goal of these events was to provide a space for representatives from local organizations or individual volunteers who were working as coordinators of certain programs to connect with each other and share learning and experience. While FS was providing manuals and guidelines for these operators, many of the challenges were highly associated with the local context of the initiatives. Therefore, through such initiatives FS was acting as a hub for community actors to develop collective learning. At the same time, FS was able to present focused training on the required skills needed for operating the programs, such as the financial or marketing skills needed for running markets. These events were also providing an opportunity for local initiatives to improve, as coordinators could share their experiential knowledge and local learnings. Below, a GFM coordinator from an educational institution explains the learning experience from connecting with the market coordinators of other neighborhoods through FS's event:

"FoodShare ran a focus group, and they invited all of the coordinators from all of the markets.... I went there with another student that I was doing my placement with at the time. At that time, we got to sit around with all the other coordinators and learned a lot from each other. About many things, like, pricing ... how to use the space, or doing similar things. For example, we have a relationship with [Name of local social enterprise]. Other places were also talking about how they had vendors teaming up with them as well, to sell different stuff around their space." (Interview #28)

4.8.2.5 Incubating and legitimizing small community-based food businesses

As described in the narrative, from its early years, incubating small community-based businesses was among FS's development activities. At the beginning this took the form of channeling public funding, as in case of a community revolving fund (period 1) that was a community loan to small businesses. Later with the launch of the GFP, FS's warehouse became an incubation hub for entrepreneurs who could get different in-kind support from FS (period 2 and after). Below is an example of how FS was an incubator to many food-related businesses with missions in line with FS's.

"They were basically ready to lend a hand. They incubated Local Food Plus. They incubated 100 Kilometer Foods. They incubated Wild Foods. There are many other projects where they have played a role in incubating, by providing the in-kind support such as warehousing space, or office space, or facilities that could be used. Access to a computer and printer, some printing services ... there have been lots of things they have been able to do. Providing food for events, hosting events at their location for all sorts of things. Working with schools, and hosting children's programming, and things like that. That's what they're doing all the time, is finding ways to partner with other community organizations. That's really what they're doing all the time." (Interview #41)

The incubation role that FS was playing consisted of two aspects: providing resources—financial and in-kind support—and providing mentorship and networking. As described earlier, FS was actively connecting local organization with itself as well as with outside actors (philanthropic and policy actors). Community-based small businesses were not an exception to this. Through these connections as well as mentoring, new businesses could get more exposure and opportunities for growth outside of their local community. Many community-based businesses that received their very first support at FS's warehouse grew into successful businesses in later years. Below, the co-founder of a small urban agriculture business reflects on FS's support in their early years.

"It [FS's warehouse] was really like an incubator. I mean, [GFP manager of the time] used that language of 'incubating' new business all the time, and that space was very dynamic; there were all sorts of things happening there, and lots of businesses were being incubated, actually.... [GFP manager of the time] was just a yes person and she basically said, 'Sure, this is a really complementary activity,' and she was very supportive. She was like a real mentor, whenever we needed anything, she was always offering us ways that we could supplement our income because, of course, we weren't making any money. [She was supporting with] ways to kind of integrate our activities with theirs, and basically, we could do whatever we wanted in the warehouse, to use it for your work and our community building, outreach work, so it was fantastic. (Interview #33, Co-founder of an incubated business in the early 2000s)

In addition to receiving support, being incubated at FS's warehouse gave a signal to other actors about a project's potential. Also, FS's reputation in the network of public and social food system organizations was an indicator that the incubated business had values and a mission consistent with FoodShare's. Therefore, FS's incubation was also a form of legitimization for community-based businesses to be accepted in the world of social enterprises around food, as illustrated below:

"If a project gets the nod from FoodShare, it definitely is a bit of a stamp of approval. Because they will do due diligence before they decide that they are going to give someone space in their warehouse. They have to know that this is a business that has a chance of getting off the ground. It's a good idea, it has community-based values, and all that kind of thing. They are not going to do this to any business that comes up; it has to be a match with their values as an organization, and their mission. And then that is a sign to other organizations that this new player is one who has been acknowledged in meeting those criteria." (Interview #35)

4.8.3 Creating markets as replicative platforms (Platform Brokerage)

Animation of the first two community markets in period 4 marks the beginning of an approach at FS that was a foundation for having a systemic impact. This strategy was moving toward being a backbone organization while encouraging institutions and local community organizations to take the lead in designing and operating markets. This made community markets platforms through which other community groups could connect and develop further collaborations. FS's emphasis on positioning markets as community hubs that welcome

customers, entrepreneurs, and the local grassroots extended the markets' role from being merely transactional to becoming a platform for other initiatives and connection building. This approach to community markets has stayed with the organization up to the cut-off date of this study in 2017. Figure 13 maps out the distribution of market locations operated by a partnering organization or a group of community leaders across the city in 2017. In this section, I describe how community markets backed up by FS became platforms through which institutions could replicate market and community brokering in their neighborhoods.



Figure 13 - Distribution of Good Food Markets and Mobile Markets as of 2017¹⁸

4.8.3.1 Institutions become platforms for market projects

From the advent of the GFP in period 2 with the Box and Bulk models, the full spectrum of activities in these programs was executed by FS and volunteers at the warehouse and drop-off

¹⁸ Source: FS Good Food Program Team

points. Later, FS became oriented toward combining community initiatives with sales and market components where possible (period 3). An example is described in Vignette 3's about selling a community garden's produce in FS's boxes and an adjacent market. In running these multi-functional projects, FS partnered with local organizations that were leading the project's operation, as in the health center in Vignette 3. In these periods, while there were multiple local organizations collaborating with FS in certain ways, the Box and Bulk models were spearheaded by FS. However, in moving forward by animating the markets in period 4 with the goal of getting closer to the GFP's customers, FS explored some new challenges. The first few community markets were fully managed and operated by FS's staff but with an attempt to transfer them to community leaders, i.e. a few dedicated volunteers or a local organization. However, after several experiences, FS learned that establishing a new community market and then transferring it to a community was not the most successful model for various reasons. First, FS as a single organization did not have the capacity to operate every single market in the city, and this was impeding scaling up of the program. Second, with a lack of drive from a community itself, even when already-established projects were transferred, the chance of termination of the project was high. Third, the diversity of potential customers and their needs across different neighborhoods and locations was making it difficult for FS or any similar organization to properly evaluate the state of food insecurity in each community to develop a well-suited market solution, i.e. box, mobile, or community market. Finding community partners to take ownership of markets was a way to develop the best solution for targeted communities. Below, one of FS's managers explains the need for partnering with local institutions because of their access to and understanding of community needs:

“[We partner with] these community partners. So, they run the markets, or else help us to identify the needs. We don’t have the deep roots that are needed to have community trust in all circumstances [in all neighborhoods]. So, we find the community partners that are well established in the neighbourhood, they have the community trust and relationships that are needed. They have been [in the community] for much longer than we are. If they’re hosting an event, they invite us. We go to the event; we talk to community folks there; we also interview them, directly – staff in these other agencies – to get an idea from them what they’re hearing from community members, individuals, in terms of their food security situation, and then we’re trying to build a case there of the need of a program like the Good Food Program in the neighborhood.” (Interview #24)

For these reasons, after a few years into the community markets model, FS adopted a new strategy of encouraging institutions and community leaders to become champions of markets while FS supported produce procurement and backbone logistics. The benefits of bringing institutions into the picture as owners and operators of markets was twofold. First, the institutions had more capacity to add their own resources to operating and sustaining the markets in their neighborhoods. FS was (and is) open to support all kinds of institutions interested in running a community market. Examples include schools, colleges and universities, community agencies, health clinics and hospitals, or churches. In many cases, such institutions could contribute in terms of human, financial, and social capital to the markets, enhancing the probability of their success. Below, one of the GFP managers reflects on how sometimes institutions that are helping with box drop-off locations or market operators subsidize the produce by using their own resources:

“Sometimes some of the partners [institutional partners] subsidize the box or market produce. We deliver them the Good Food Box; they subsidize that, giving it to the people who need it, for example [Name of a church] gives them the five dollars off. They are buying the box from us for thirteen dollars; and It’s the agency that adds the eight dollars [subsidy].” (Interview #19)

The second rationale for FS’s motivating institutions to take ownership of markets was to make the conversation around markets bigger. As reflected on below, involvement of institutions in markets facilitated bringing more actors into the market model, legitimizing it in the eyes of

policy makers and philanthropies and, at the same time, showcasing a market model in least-expected locations with a specific customer base. Some examples are a school's parking lot for parents, the hallway of a college for students, or the entrance of a hospital for its staff and clients.

"When we connected with TTC, the public transportation, it's that kind of leap that makes this scaled. Like it changes the conversation. And then when it was only, I put that in quotation marks, 'when it was only community organizations', it's a community food program. It's fine, it's great, what a wonderful solution. But as soon as big partners come into this picture and start playing, then it becomes a larger conversation. So, if we get hospitals, we have entered into an institutionalized conversation where that's once again going to catalyze, it's going to leap things forward in the mind of the world. Mind of government, the mind of Canada, it's a big deal. Because then hospitals will then see this as a potential solution to people's health and then public, Toronto Public Health sees this as a really key intervention. TTC now has jumped onto this kind of markets: 'Oh we can have these cool Good Food Markets,' and it enters into a whole other middle upper income realm which it never was before." (Interview # 07)

The model of stimulating community leaders and local institutions to take the lead on markets was making FS's role in providing backbone support for initiation and operation of markets important. At first, this support was by providing its purchasing, transportation, and warehouse management capabilities for the market operators. Therefore, the market operators were only responsible for ordering the produce from FS. However, the more important role of FS was to provide community leaders or the institutions with necessary training. As explained below, FS's role in this model has become providing required training for institutions and community leaders who are needed to run such markets. This training ranges from marketing, accounting, volunteer management, pricing, and managing leftovers to conflict resolution and many others. Thus, FS's impact would have a ripple effect in the network:

"Our main limitation is the reach – we don't have big-enough reach. So, I always think about the ripple effect – ripple effect meaning passing the ball to a community leader who then is going to train another five people who then is going to take on – and then, all of sudden it's a much bigger – that FoodShare alone wouldn't be able to do it, so it's – and we're passing the ball to – we're empowering community. And in order to do that, we have to focus more on training, on how to run a market type of training ... also conflict resolution type of training because there is conflict in every setting." (Interview #09)

Another aspect of this strategy was promoting community ownership of market projects to stimulate action and agency in local groups. In setting up a new market, community consultation processes were always present in order to ensure the community actors that they had full control and authority over the project. This meant that all the market features would be designed according to the community's preferences and needs.

"The community has a lot of say over how the market is – you know, what the market includes, how often it should be, what time it should be at, what location, where is the facilitation." (Interview #38)

Therefore, while the general model was universal, every single market had its own operational characteristics, produce categories, and even pricing strategy. This allowed for a variety of highly customized markets to be operated across the city by different institutions or community champions. Here is an example of the fact that even prices could be customized on the basis of the neighborhood by market operators:

"We do always send out our order form with a list of suggested prices. But some other markets may have funding, and they may actually subsidize the cost of the produce. So, each market is free to set their own prices." (Interview #07)

4.8.3.2 Markets become circles to bring stakeholders together

Before period 4, FS's line of community projects was filled with collaborative and connection-building approaches. As explained earlier in relation to the concept of 'co-creation of local solutions', in many instances, FS was actively connecting community members and groups and with outside stakeholders. With the animation of markets in period 4 and more importantly by inviting local community leaders and institutions to operate markets, this approach was extended through markets. Markets in communities were then introduced not only to provide access to affordable fresh produce, but also to act as community hubs in neighborhoods. To this

end, community markets were not merely a space for market transactions but a place to promote community cohesion at both the individual and the organizational levels. Positioning markets as community hubs added two major functions to the markets and to the institutions that were running them.

First, as mentioned earlier, the GFP generally provided a space for people to connect with each other either through connecting for ordering boxes or while shopping at markets. This function of markets, while decreasing social isolation in the community, was beneficial for enhancing social capital by introducing individuals to available community resources, providing small-scale entrepreneurship, and gathering people around food initiatives. Below, a FS staff member elaborates on the understanding that FS's evaluation team developed while studying the impact of markets and the fact that the extent of community development potential connected to markets was striking to the team:

"I realized that this project –this particular – the Good Food Market – it's way more than that [market transaction]. It goes so beyond that, and what really strikes me is the sense of community building that market allows and transformation within the community in terms of developing richer relationships. So, in the building, I was there just observing, and then people started coming down – the seniors, mainly. I think the majority of the population within this Toronto Community Housing building is seniors – meaning 65+ – and many of them live alone, and they would come downstairs, you could tell they were – many of the ladies had makeup on, and they would dress up with very fancy clothing, as best as they could, and their hair was done. Then, I started realizing that other community members within the same building would come and offer services like manicure – not in the same area of the market, for public health reasons, but beside the market – and there was another man in the community that was inspired to buy the vegetables from the market and then cook Jamaican, culturally appropriate food, and then sell these pre-made meals. I saw all this happening, and it was really interesting, and then I spoke with one of the women, and she told me that she looks forward – the market there is every Wednesday – she said that she lives for Wednesdays because Wednesday is when she gets to talk to all her neighbors, and it's pretty much a whole-day affair where – so it's beyond just accessing health, good food, fresh produce; it's more about talking to neighbors, socializing, and that brought a lot of happiness to her life. So, that was another element there that was really interesting to me, and as an evaluator working from behind my desk, until I went there and actually spent time with them, it wasn't really – the logic model that I developed had social cohesion, but I didn't know the depth of it, until I went there and observed and talked to these lovely people." (Interview #24)

Second, in order to keep the markets running, many of the institutions needed to cultivate local partnerships. Therefore, the market was providing a reason for its operating agency to take on new initiatives in collaboration with other community organizations. As an example, the coordinators of a market in an educational institution in response to the need for managing the leftovers from the market developed a partnership with a nearby local community kitchen. Through this partnership multiple other small projects, such as weekly recipe demo days, were held at the institution and created food education for the public. In addition, through meetings at markets or consultations leading to market projects, local organizations had a chance to connect with their peers as well as other external organizations to work together, share resources, and launch new initiatives. Below is an example of how multiple collaborations were being pursued in the process of launching a new market within a private hospital.

“So, we are negotiating to see if there is an opportunity for FoodShare to partner with [Hospital’s name] ... And [Hospital’s name] has a foundation, so they are looking to see if they can bring in some money to partner with FoodShare. And then there are Public Health dieticians who might collaborate with the hospital’s dieticians to bring some education into it. So, there is a lot of opportunity around it [building the market].” (Interview #40)

The fact that markets within the institutions running them became places and reasons for bringing community and local organizations together initiated a replication effect in terms of development and connection building. This means that FS was not directly involved in many of the connections and collaborations that were established around markets. In many instances, an institution operating a market was itself acting as a brokerage organization connecting community actors and resources. For this reason, I refer to these markets as replicative platforms meaning that the markets operated by institutions were providing an opportunity for the brokering benefits of FS to be replicated by other local actors in communities.

4.9 Integrating findings toward a grounded model

Up to this point, I have laid out two sets of mechanisms that were at work while FS was evolving as an organization with significant a brokering orientation and developing its innovative market model. The proposed mechanisms are the result of analyzing the data on FS's activities in relation to different stakeholder groups. I distinguish these mechanisms on the basis of the major actors that FS was interacting with over the years. Mechanisms in the *realm of public and philanthropic actors* capture FS's constant engagement with these actors to contribute to a collective understanding of food system problems and potential alternative solutions as well as crossing the boundaries between these actors and community actors. On the other hand, in the *realm of market and community actors*, I capture FS's three mechanisms of creating its innovative brokered market model, co-creating local solutions with community actors, and creating a model of replicative platforms for systemic impact. To move forward and feed these mechanisms into the evolution of FS's model for systemic impact, in this subsection, I first discuss how cycles of experimentation and implementation were critical as new models were invented. Then I discuss how the mechanisms in the two realms were interacting with each other, and I propose a grounded model for systemic impact by introducing a new concept that I call *decentralized brokerage*.

4.9.1 Cycles of experimentation and implementation

A major part of the mechanisms discussed describes FS's actions while interacting with public, philanthropic, market, and community actors. However, these interactions were not occurring in isolation and were the underlying prerequisite for innovating and developing new models to address food security through market and community arrangements. This progressive

creation aspect of FS's work should be seen as an indispensable complement to all its linking roles. Therefore, while FS's undertakings revealed a significant brokering orientation, this orientation was founded on an evolving repertoire of interventions. Since the core of its innovative model of market solutions was the new forms of interaction between stakeholders and resources through a model developed by FS, the creation and brokering aspects of FS's work were heavily entangled. Bearing this in mind, two processes were present as the new models were being developed: generating new ideas and experimenting with new initiatives based on them as well as operating the programs on a day-to-day basis. I refer to the combination of these two as cycles of experimentation and implementation through which new models were initiated and developed into successful programs.

First of all, FS was an innovative organization constantly pushing for new models to get involved with other actors for different solutions. Experimenting with new ideas was due to both being responsive to the community's input as well as being founded as a 'clearing-house' for new ideas. FS's former executive director reflected on this in response to the question of why FS was constantly taking on new initiatives that were advancing FS's model from one period to the next¹⁹:

"Question: What were the factors that pushed FoodShare to go in a new direction each time?"

Participant: I want to give an answer that is in two parts ... in the sense that in one way, it was always just continuing to play the role that it was set up to do: to be a clearinghouse of the best ideas. And in that way, you could argue that as it learned about other things in society, it changed. If you are into community development, then if the community asks for something new, you have to

¹⁹ This particular conversation happened in a follow-up interview, after I shared my initial results with some key informants. The question was asked in the context of the four periods I presented earlier in the narrative section and which I had shared with the informant before the interview.

respond. So, on one level, all of the periods were the same, in the sense that it was a responsive organization to trends in the food movement.” (Interview #43)

On the other side, the customized nature of solutions for each community made experimenting a necessary component. While all market programs were under one umbrella, each community had its own customized version of the solution. Consequently, experimentation was essential both for innovating new models as well as for customizing the models to local contexts. Not all initiatives were successful and trying new approaches in community or market projects was natural to the organization. In moving forward, experimenting, failing, and learning were a big part of developing and creating new market and community arrangements, as illustrated in the following comment:

“Food Share started off with all sorts of good things. You can say it was always a process of learning, recovering from mistakes and trying again. It’s trying, making the mistake, trying again.” (Interview #30)

Second, implementing initiatives was critical in demonstrating that a model was promising. Realizing the models while being part of innovating them was also one of FS’s strategic lines, i.e. direct impact. Therefore, establishing a backbone infrastructure and operating the GFP was serving two purposes: showcasing the potential within the market model and generating a direct impact on access and affordability. Over the years, FS developed a unique operational expertise in implementing its programs; and for this reason, in many cases, it was acting as an operating partner for multi-partner projects. Below, a representative from a public sector organization reflects on FS’s operational expertise:

“I would call them an operating partner. We don’t do that kind of stuff [implementing initiatives] here. We’re not in the field, selling produce. We’re not farmers; we’re not an action organization.... So, as an operating partner for the markets, that’s really the value they [FoodShare] bring. They bring the knowledge; they have the warehouse.” (Interview #40)

Through integrating mechanisms of the two realms, FS was the bridge between small victories on the ground and the big-picture understanding of larger actors such as philanthropic and public bodies. FS resembles an organization that incorporates local action and its complexities with a big picture perspective for system-level change. One of the policy experts pointed out this dual role between community and larger organizations:

"I think FoodShare's role is really as, like, an anchor organization. It's connecting work in communities across Toronto, to funders, to academics, to other organizations or agencies working on poverty or health or community development, so FoodShare is always brokering these kinds of relationships, but it is really the connector between, you know, what's happening on the ground, in particular communities where those little organizations and those community groups wouldn't be able to leverage the networks and resources that – so, a group in Scarborough, or even the African Food Basket, or all of that work can then sort of be kind of connected through FoodShare's network somehow. Even if it's not a FoodShare project, FoodShare somehow acts as an umbrella in Toronto for all of this work. Even when it's not a FoodShare project, they can speak to the importance of community food programs in every neighborhood, in every shape and size, right, and so – and I think holding that vision and that place in the city is really important, and can advocate, you know, on behalf community groups – with the United Way, with the City of Toronto – and has been very effective in that role" (Interview #33, Policy expert)

In sum, while FS was developing its innovative models of getting market and community actors involved, initiatives were evolving through cycles of experimentation and implementation. At the same time, its interactions with community and public actors were nurturing both parties through the mechanisms of extending the interactions between these actors, as explicated above. Therefore, FS's development of market models, mechanisms of community side, and mechanisms on the side of public and philanthropic actors were working together in a closed feedback process. In the subsection below, I combine these mechanisms in a grounded model to form a decentralized model of brokerage for systemic impact.

4.9.2 A grounded model of decentralized brokerage for systemic impact

Figure 14 presents a grounded model combining the mechanisms that were introduced in this chapter. As many of the mechanisms were occurring at the intersection of different actors, realms of different actors are not distinguished in this model. The focus is on the evolution of FS's innovative model of engaging stakeholders and, more importantly, the way these mechanisms interact to form a process with systemic impact potential. Building on this model, I propose a process which I call *decentralized brokerage for systemic impact*, which can be defined as “a process of initiating and orchestrating a series of brokering actions between different actors and resources across sectors and places to nurture simultaneous local innovative forms of connection and interaction toward a unified mission.” An organization such as FS which sits between different groups of stakeholders can stimulate a form of innovative brokering that is distributed throughout the network. The pathways by which any actor is able to enact transformation is through creating a repertoire of programs under an innovative model through which different sets of stakeholders connect and create local solutions of a system-level problem. In the case of FS, while the organization was a key broker in the network, the act of brokerage was decentralized across different alters, e.g. City-community organizations, municipal organizations-community members, private donors-community groups, philanthropic resources-community projects, farmers-customers, among others. More importantly, in the case of FS, through replicative platforms and positioning markets as hubs, other actors in the network, i.e. institutions operating the markets, were provoked to perform the same role at the local level. These platforms give rise to agency within actors that are not traditionally mandated for such a

brokering role. Therefore, this model ultimately generates a decentralized impact that is beyond the focal organization' reach.

At the heart of the model, the evolution of FS's repertoire of initiatives for addressing food security by using its alternative distribution model is shown. As the model captures a full spectrum of FS's life, including period 1 before the launch of FS's GFP, it also includes the non-market brokerage role that FS was playing during the first period. This role, as described in the narrative, mostly involved coordinating the transfer of donations, produce, and funding between public and philanthropic bodies and food assistance organizations and community groups. Following that, beginning with the launch of the GFP in period 2, creating its innovative market model was the major mechanism at work. This was followed by the creation of the market as platform model through which local institutions could replicate the impact with support from FS. This evolution of models was occurring through developing the intervention repertoire that was resulting from cycles of experimentation and implementation. Interventions under the umbrella of the market model were constituted and reconstituted through a dynamic interaction with mechanisms in the realm of public, philanthropic, and community actors. In this sense, interventions were not embedded in a static problem-and- solution paradigm, but they were enacted as the community-based problem-solving and solution paradigm was evolving.

Through the co-creation of the problem-solving and solution paradigm in engaging with public and philanthropic actors, new ideas as well as resources and connections were mobilized to support of the repertoire of interventions. The most important aspect of how the co-creation of the problem-solving and solution domain contributed to the advancement of the market model was the focal actor's role in establishing a third pillar for the two pillars of market

arrangement, i.e. community and farmers. This third pillar provided support and engagement, which resulted from the collective formation of potential solution paradigms (e.g. charity to non-charity, hunger to health to empowerment). This third pillar and the way a bridging actor enabled it to distinguish the evolution of the market model from common market creation projects in which the presence of market actors and overarching rules are sufficient to make markets sustainable. Here, the backbone organization, which is bridging the market actors as well as supporting the actors, is essential for success.

On the other hand, the creation of local solutions in close collaboration with community actors was the foundation for developing the repertoire of interventions and the market model. As discussed earlier, while the model was evolving through close consultation with community members and groups, it assumed a customized form for each local context. Therefore, each local solution was adding to the collection of existing interventions, providing the basis for further experimentation with different market models. Building on this feedback mechanism, variations of market and community initiatives were merged to establish multi-function initiatives.²⁰

In addition, the co-creation of problem paradigm was directly influenced by the co-creation of local solutions at the community level through a feedback process. As elaborated above, extending the reciprocal interaction between communities and the realm of public and philanthropic actors was the impetus of this feedback process. The dynamic problem-solving paradigm was a guideline to funnel capital and redirect underused public resources. At the same time, extending the outreach of both of sides was key in the development of the problem-solving

²⁰ See Vignette 3 for an example.

and solution paradigms. In this sense, through the presence of FS's focal brokerage, public and philanthropic actors were receiving on-ground information to develop an understanding of the possible aspects of problems, while community actors were able to get better access to the network of these large actors for successful development of community solutions.

What we see in the model is the forging of a decentralized network of stakeholders while different innovative forms of interactions are constituted by a focal actor through a joint effort with different stakeholders who bring different sets of resources and creativity to thinking and action for a collective mission. I have explained how these interactions contribute to a market model for transformation that provokes other actors in the network to replicate transformative behaviors. This replicative model by its market nature and being led by a decentralized group of actors cultivates a systemic impact, as it extends the influence of the focal actors who originally initiated it.

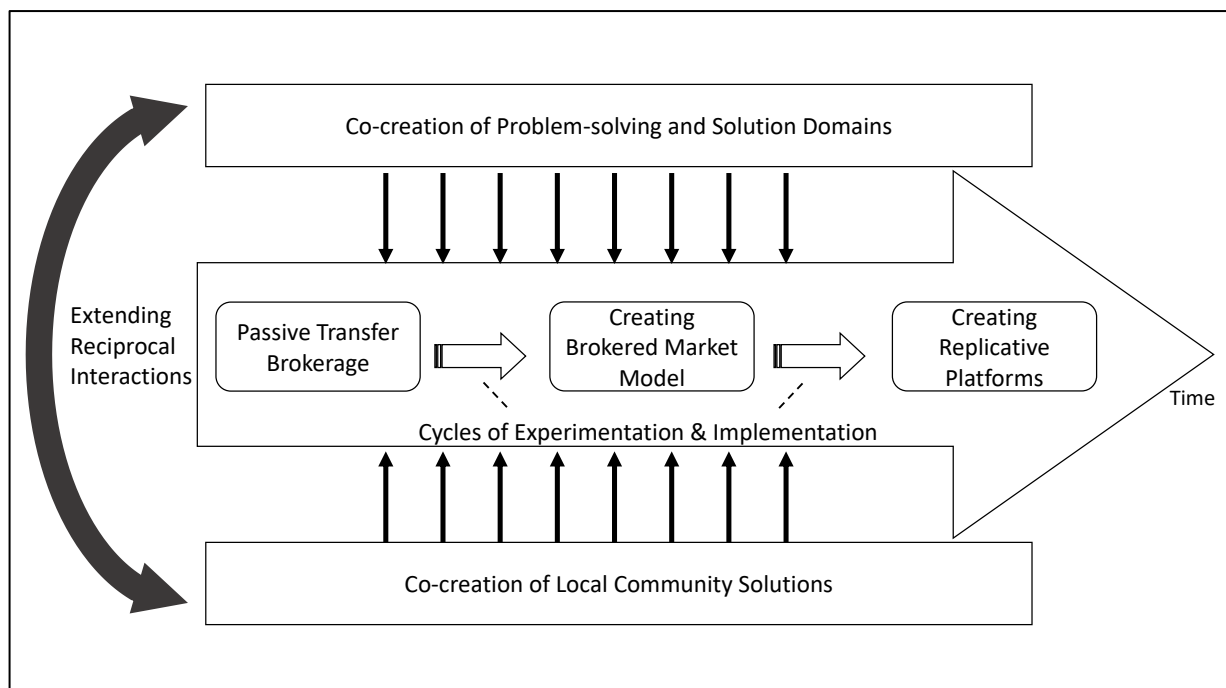


Figure 14 – Grounded Model of Decentralized Brokerage for Systemic Impact

Chapter 5 Dynamics of Creating Socially-oriented Markets: A Mathematical Modelling Approach

“Here’s the thing about Smart Power: what we did was create the model, whereby working with telecom companies with significant energy needs as anchor tenants, we can make it profitable for smaller-scale energy-services companies using alternative energy sources such as solar, wind and biomass to bring reliable, twenty-four-hour electricity to households and small businesses in rural areas.”

*Ashvin Dayal, The Rockefeller Foundation
on “Smart Power for Rural Development”²¹*

5.1 Chapter Summary

In Chapter 4, I presented a dynamic narrative of a strategic actor stimulating systemic impact through different brokerage activities and simultaneous engagement with public and community actors. A core aspect of the case was an innovative market model in an attempt to address food security in underserved urban communities while benefiting local small-scale farmers. Inspired by this market initiative, Chapter 5 investigates how new market arrangements with a social purpose come to be at early stages and either sustain or fail in the long-run. In what follows, first

²¹ Available at: <https://www.rockefellerfoundation.org/market-based-solutions/>

“socially-oriented market”, a term I use to refer to such markets, is introduced. I discuss the challenges of creating these nascent markets and the subsequent research puzzle. Then, I develop a mathematical model that captures the growth of the markets as new arrangements are adopted by interdependent communities of stakeholders. Following that, I present the analytical and computational findings of the model regarding the tipping behavior and long-term success of these markets. I close the chapter by investigating the role that strategic actors can play through policy levers in changing market emergence dynamics. This chapter provides a novel perspective to creation of market arrangements where simultaneous presence of both communities of supply and demand sides are critical for passing the early stages of introducing such initiatives. In this sense, the analysis at the final section of this chapter highlights how brokering bodies can assist with this simultaneous value creation for both sides.

5.2 Socially-oriented markets: characteristics and challenges

The market model presented in the Good Food Program (GFP) of FoodShare in Chapter 4 illustrates a market creation project in which new market arrangements are meant to address a societal problem. While the market model spearheaded by FoodShare grew in numbers, it remained dependent on continuous nursing by the organization to attract and keep new and existing actors involved. The GFP market model and similar empirical examples, such as the mini-grid decentralized electricity market initiated by The Rockefeller Foundation across Africa and South Asia (Accenture Development Partnerships, 2015), represent a form of market initiatives which I call *socially-oriented markets*²². I define them as market platforms that introduce a new

²² Markets and market arrangements are used interchangeably in describing socially-oriented markets. This is because in many cases socially-oriented market may refer to a new mode of interacting between existing (or previously excluded) actors rather a totally new market. In many market initiatives, a modification in inclusion of actors and relevant necessary arrangements

arrangement to stakeholders from supply and demand sides to interact within and across these sides in a sustained manner toward a broader social impact. The rationale behind this definition illustrates the core feature of the market model discussed here. Socially-oriented markets are similar to social-benefit markets (Corbett & Montgomery, 2017) or moral markets (McInerney, 2014), in the sense that generating social benefits is at the core of their existence. Social-benefit markets, for instance, provide a platform for trade of public goods such as clean air or water, as in the case of carbon markets (Perdan & Azapagic, 2011). Formation of social-benefit markets has proven to be challenging because of differing incentives (Sandor et al., 2002), need for involvement and investment of multiple groups of social and political actors (Kolk et al., 2008), and collective establishment of new interorganizational arrangements (Corbett & Montgomery, 2017). Similarly, socially-oriented markets, because of the distinct characteristics that I discuss below, encounter substantial creation challenges at early stages. Table 11 summarizes these characteristics. Complexities associated with creating and sustaining these market arrangements in empirical settings—as was shown in FoodShare’s case—make them an interesting puzzle for further investigation.

First, socially-oriented markets while similar to social-benefit or moral markets in terms of their *raison d’être*, are different in their means of creating social benefit. Lee & Georgallis, (2018) distinguish moral or social-benefit markets from conventional markets in that their products, services, or means of production are normatively superior and they are usually supported by

is the core of creating social benefits through those initiatives. In the Good Food Market, the core is FoodShare’s program that enables small local farmers and urban low-income people to engage in market exchange.

organized actors²³ who promote certain values through these markets. On the contrary, socially-oriented markets create social benefits by introducing a new form of arrangement among stakeholders across the market. This means an innovative model of interaction between actors from the supply and demand sides that benefits both sides and the broader society. These markets are not necessarily about an eco-friendly product, a more socially responsible service, or a public good, as in social-benefit or moral markets, but about a new mode of interaction between market actors. In the GFP, the new market arrangement designed and promoted by FoodShare was a combination of financial and operational models designed to connect smallholder farmers and the provincial industrial food hub to underserved urban consumers in order to address produce affordability and accessibility while benefiting local farmers. Introducing this kind of arrangement sometimes invites new actors (e.g. smallholder farmers), making these markets more inclusive (Mair et al., 2012; Kevin McKague & Siddiquee, 2014). The same innovative arrangement between supply and demand actors can be observed in the case of the mini-grid electricity market:

The Rockefeller Foundation saw an opportunity to catalyze the telecommunications and off-grid energy sectors. Currently cell phone towers in rural areas are often powered by expensive diesel generators and companies are looking for cheaper alternatives, thereby creating the possibility for a strong “anchor” demand for off-grid power in rural areas. Entrepreneurs can take advantage of this demand by setting up power plants which provide electricity to cell phone towers as well as surrounding communities and other local enterprises. (Ashvin Dayal, *Managing Director Asia, Accenture Development Partnership Report*, 2015)

The second and most important feature of a socially-oriented market is the high interdependency between communities of supply and demand. High interdependency between

²³ Extent number of studies that connect social movements to markets with social benefits look at these organized actors in the form of mobilization of stakeholders for moral values aligned with market outcome (e.g. Weber et al, 2008).

the two sides means that actors from the supply and demand sides need to be *simultaneously* present and engage in the new market arrangement. This is because matching occurs at the local level as new arrangements respond to failures within conventional markets. In both the exemplary cases of the GFP and mini-grid electricity markets, the presence of communities on each side is critical for participation of the other side. In the GFP, for local smallholders to get interested in the initiative, a guaranteed number of customers had to already be participating in the Good Food Markets. Similarly, urban underserved customers get interested in the new market initiative only when a sufficient number and variety of farmers are selling at it. Similarly, simultaneously addressing participation requirements of both supply and consumption sides through comprehensive value chain interventions is discussed as critical for the sustainable creation of nutritious food markets (Henson & Humphrey, 2015). This interdependence assumption of socially-oriented markets reinforces and advances the idea that the creation of markets is inherently relational (White, 1981). In his seminal work, White in exploring the social origins of markets, proposes that markets emerge as producers monitor each other and adjust their behaviours accordingly (1981), an idea that has influenced economic sociologists since then. High interdependency in socially-oriented markets, makes market emergence dynamics even more complex, as supply and demand actors monitor their peers on each side as well as other actors on the other side when adjusting their behaviour and making market participation decisions. Therefore, such interdependency creates a chicken-and-egg problem in the early stages of market emergence, and this the point of interest in this chapter.

Third, given their social-benefit creation objective and emergence challenges in the early stages, socially-oriented markets do not emerge on their own. Similar to the creation of moral

markets in which an organized set of actors—sometimes in the form of a movement—boundary spanners, and hybrid social enterprises play a fundamental role (McInerney, 2014), socially-oriented markets are usually championed by strategic intervening actor(s). Strategic actors are a combination of social and public actors that by enacting interventions or policies can stimulate market dynamics through influencing supply or demand stakeholders as well as their interactions. These actors by virtue of their mandate—social, public, or even private—may affect one or multiple parts of the system. Overall, their combined activities have system-level or sector-level outreach, as in the case of FoodShare and its partners, with interventions covering actors across the supply chain. As outlined in the empirical example of FoodShare and what can be seen in the mini-grid electricity initiative, socially-oriented market arrangements grow from market initiatives pioneered by strategic actors that carefully design, pilot, and promote the arrangements in supply and demand communities. Strategic actors such as FoodShare or the Rockefeller Foundation through their initiatives and partnerships create and cause to flourish communities of supply and demand and stimulate their sustained interaction. What was presented in Chapter 4 demonstrates the simultaneous endeavour on different sides of the market for a progressive build-up of the new market arrangement. For markets to sustain behavioural changes, market participation needs to occur on both sides. Strategic intervening actors can also facilitate this by providing knowledge, awareness, and, most importantly, necessary infrastructure that makes the new arrangement more attractive to actors. An example in the GFP is the required changes in consumption patterns of fresh produce in target customers or changes in farmers' growing patterns of certain produce to guarantee sustainability of the market model in the long term.

Table 11- Socially-oriented markets' key characteristics

Key characteristics	Description	Example
Introducing of new arrangements	Social benefit is created through an innovative mode of interaction between stakeholders particularly from the supply and demand sides.	Decentralized off-grid independent electricity producers are used to respond to demand in rural areas (mini-grid electricity market).
High interdependence between supply and demand	Simultaneous presence of supply and demand actors is the necessary condition for the market to come into existence because of local matching and high elasticity of the two sides.	The GFP market can only be sustained when urban customers and local farmers simultaneously participate in the new market model (GFP).
Need for intervening strategic actors	The fragility and newness of the arrangement call for careful nursing by strategic actors at early stages.	Initiatives by FoodShare or the Rockefeller Foundation and their partners encourage building supply and demand communities and trying to sustain the arrangements.

High interdependency between the sides in socially-oriented markets and newness of arrangements to the supply and demand actors generate a high level of fragility in the market creation process. While both sides are reluctant to test the new market arrangement, they are also highly dependent on each other to participate in the market. Therefore, such arrangements impose a substantial chicken-and-egg challenge in the early stages as well as the possibility of sustaining them in the presence of interdependency, which I investigate in this chapter. In order to address the complexities of creating these markets in the early stages, scaling them up, and sustaining them over time, I ask: *How do socially-oriented markets emerge in the presence of interdependent communities of actors; and how can long-term establishment of such market initiatives in settings with high interdependency be achieved?*

To answer these questions, I explore how a new market arrangement, such as the Good Food Market in the case of FoodShare or the mini-grid electricity market, diffuses across the two interconnected sides of supply and demand communities. In FoodShare's market model, the

supply population includes small-holder farmers, local producers, and other suppliers who choose to sell all or part of their produce through the Good Food Markets among other alternatives, e.g. selling to a wholesaler. The demand side in the same model includes individual as well as institutional customers, e.g. schools or hospitals, that choose to buy produce (for their healthy food programs or part of their food procurement) at Good Food Markets instead of other alternatives, e.g. conventional retail outlets. In the case of the decentralized mini-grid electricity market, the supply side includes all the entrepreneurs who become mini-grid operators, and the demand side includes all electricity consumers, including rural households and enterprises as well as telecom companies. The market grows in terms of numbers only when actors from both populations are aware of and willing to participate in the new arrangement. The mechanisms of diffusion of the new market arrangement into these two populations are those of legitimization of a new practice, social influence and bandwagon pressures for adoption, and competition for scarce resources, to maximize utility. However, I keep the analysis at the aggregate population level to emphasize the effect of interdependencies between the two groups of stakeholders (i.e. supply and demand) on the success or failure of the market as a whole.

Diffusion has been long used to explain adoption of new technologies or innovations (e.g. Rogers, 2010), new practices (e.g. Lounsbury, Ventresca, & Hirsch, 2003), or new policies (e.g. Lee, 2009) underlying the emergence of new industries, sectors, or market categories. Therefore, there is a good methodological understanding of the diffusion phenomenon, meaning that the underlying dynamic processes and their mathematical representations are well understood (Bass, 1969; Strang & Soule, 1998). Following the well-recognized assumption that nascent markets or market categories emerge as new innovations or practices diffuse in a population of

adopters, whether consumers, producers, or organizations, I develop a computational model that builds on and advances of well-established diffusion models. I extend the model in two ways to capture the characteristics of socially-oriented markets outlined above. First, the model incorporates actors' continuous evaluation of the new market arrangements on both the supply and demand sides. This results from the newness of the arrangements to both supply and demand sides, and because actors in reality choose from competing alternatives, for example, participating in a traditional market as in the case of the Good Food Market, or simply not adopting the new model, as in the case of mini-grid electricity. This is similar to conceptions of markets as collective calculative devices (Callon & Muniesa, 2005), as it highlights the evaluative nature of supply and demand actors' agency in assessing market utility for joining or leaving a new market arrangement. In this sense, the socially-oriented market is conceptualized as a utility-based form of interaction (Callon & Muniesa, 2005) between two interdependent communities. This means that actors' decision for market participation is determined by the market utility for the collectivity of the actors on the supply and demand sides, and which gradually develops as the market grows (or fails). Second, the model captures two simultaneous diffusion processes that occur on the supply and demand sides in a closed feedback process, gradually building up the market utility as a whole. In what follows, I describe how I utilize the current understanding of diffusion models and their tipping behavior, to construct a coupled diffusion model²⁴ to investigate the emergence dynamics of a socially-oriented market in the early stages.

²⁴ I call the model "coupled diffusion" since two parallel diffusion processes are modelled that are interacting simultaneously through a dynamic feedback process that forms an overall market utility.

5.3 Simultaneous diffusion and tipping behaviours in market dynamics

Socially-oriented markets emerge as market arrangements diffuse successfully in both sides of the market. This simultaneous diffusion of new market practices is witnessed in numerous nascent market settings, such as adoption of new practices in communities of producers and consumers of grass-fed dairy products (Weber et al., 2008). The literature on diffusion identifies a range of mechanisms leading to adoption and focuses on diffusion within one particular population of interest (Strang & Soule, 1998). This one population can be of customers for an innovation (Rogers, 2010), of firms for certain managerial practices (E. Abrahamson, 1991), or of producers for new production practices (Sine et al., 2005). However, our knowledge is limited about the situations in which simultaneous diffusion needs to happen in two interdependent groups of stakeholders, e.g. from the supply and demand sides. Treatment of market dynamics as a result of two (or multiple) interconnected simultaneous diffusions in different groups of stakeholders opens the door to exploring questions of market creation in the presence of high interdependency and to subsequent chicken-and-egg problems. This approach introduces supply and demand endogenously and in close interaction for exploring the evolution of a new market (see Vettas, (1998) for a similar treatment of learning in both the supply and demand sides of a new market).

Diffusion is a well-known central process in the context of diverse natural and social sciences. Many diffusion phenomena in social systems involve contagion-like mechanisms like those in the spread of infectious diseases. Scholars have identified different mechanisms in the diffusion process in social systems, including but not limited to word of mouth and imitation (Mansfield, 1961), bandwagon pressures (Abrahamson & Bartner, 1990), and network

externalities (E. Abrahamson & Rosenkopf, 1993). Contagion-like mechanisms of diffusion have been utilized and modelled to study kinds of diffusion from new products, innovations, and managerial practices to rumors and rebellions (Bass, 1969; Mahajan, Muller, & Wind, 2000; Rogers, 1962).

Early perspectives from the innovation diffusion literature, highlights gradual communication of information about an innovation through linking channels in a collectivity as an underlying mechanism (Rogers, 1962). From this perspective, innovations diffuse by a decision-making process through the five stages of awareness, interest, evaluation, trial, and adoption (Rogers, 1962). Members of a collectivity become aware of and interested in an innovation through a series of communication channels over a period of time and may adopt or reject it after or during a trial and evaluation period. In this perspective, diffusion usually happens through a rational logical process. Later perspectives complemented this view by suggesting that bandwagon pressures may also contribute to diffusion (E. Abrahamson, 1991). Bandwagon pressures are those social and economic forces that make individuals or organizations adopt products, innovations, fads, or fashions regardless of their characteristics, but on the basis of the number and type of peers that have already adopted them (E. Abrahamson, 1991; E. Abrahamson & Rosenkopf, 1993). Abrahamson (1991), in discussing diffusion of fads and fashions, highlighted the importance of examining pressures that counter the diffusion as well as the pressures that impel it. In the case of the mini-grid electricity market, for instance, entrepreneurs could join as a result of the presence of their peers or from heavy promotion by internal or external opinion leaders in their community, that is, social pressures or fads and fashions.

In the model I present here, I incorporate both social influences and utility-based decision making in order to explore the impact of bandwagon or counter-bandwagon pressures leading to adoption or rejection of market arrangements. Mechanisms of social influence and bandwagon pressures that exist 'within' and 'across' these two populations of supply and demand stimulate or impede growth of the participating actors. For instance, simply the presence of a large number of farmers or peer customers may attract more customers for a trial period, while the lack of a sufficient infrastructure or rejection by a large number of actors on either side may lead to widespread rejection. These opposing pressures generate threshold models in which either of these pressures overcomes the other, leading to diffusion or rejection of the new market arrangement on both sides.

Incorporating this perspective into the modelling helps develop threshold models that pinpoint rejection or acceptance of the new arrangement (E. Abrahamson, 1991). Tipping points, also referred to as thresholds (Gladwell, 2006; Granovetter, 1978); turning points (Abbott, 2001); or phase transitions (Prigogine & Stengers, 1985) are those points at which a system's behavior changes dramatically as the dominant mechanisms change direction. The existence of tripping points in a system suggests that even if the system begins in a favorable state, there is no guarantee that it will persist in that state (Repenning, 2001). Exploring tipping behaviors provides valuable insights into understanding the complexities and dynamics of a system, particularly in fields that are undergoing shifts and emergence, as in the case of market emergence (Meyer, Gaba, & Colwell, 2005). Systems with fundamental tensions or trade-offs lead to tipping points and steep thresholds that are difficult to explore through traditional statistical or qualitative methods yet offer surprising counterintuitive insights that are observable through simulation

models (J. P. Davis, Eisenhardt, & Bigham, 2007). By their nature, socially-oriented markets with trade-offs and tensions between the sides as well as resulting in adoption or rejection mechanisms are a highly suitable candidate for exploring tipping behavior.

Exploring the tipping points in a system, particularly when two opposing and interconnected mechanisms are at play to form the overall behavior of the system, has been used in various scholarly contexts (Hopewell, 2001; Rubineau & Fernandez, 2015; Rudolph & Repenning, 2002). In diffusion models, the tipping point or threshold specifies the boundary beyond which impelling pressures overcome countering pressures and lead to widespread growth in the number of adopters. Conversely, this threshold determines a boundary below which countering pressures limit impelling pressures and lead to diffusion failure. In a socially-oriented market modelled as a coupled diffusion on the supply and demand sides, the dominant mechanisms are adoption through diffusion and establishment or abandoning depending on joint market utility. Dominance of one of these over the other leads the market into either a success or a failure trajectory. I use tipping-point analysis to investigate the threshold in simultaneous adoption of market arrangements on both the supply and demand sides to determine the boundary for change of direction in these dominant mechanisms.

5.4 Methodology and Approach

I construct a mathematical model to capture the simultaneous and interconnected diffusion of a set of new market arrangements across two hypothetical populations from the supply and demand sides. In the Good Food Market example, these can be assumed to be communities of local farmers and communities of urban consumers. In the small-grid electricity example from India, these two sides are the small-grid operators on the supply side and the rural households

and other consumers on the demand side. In this chapter, to make the arguments and model easy to understand, I use “communities” on the supply and demand sides. However, any interconnected communities of stakeholders that are involved in a new market arrangement can be assumed as these two populations, including producers, retailers, non-profits, agencies, consumers, and others.

As explained, I conceptualize emergence of socially-oriented markets as a diffusion of a new market arrangement in two interdependent populations of supply and demand. While the diffusion phenomenon has well-understood outlines, the interdependency of the sides and joint buildup of market utility makes the emergence of socially-oriented markets a nonlinear phenomenon. For this reason, the underlying processes that result from the interdependencies and multiple stakeholders involved need to be explored. Building a computational and simulation model is particularly useful for understanding such a phenomenon, to create theoretical insights and make current theories more rigorous (Burton & Obel, 2011; J. P. Davis, Eisenhardt, & Bingham, 2007). As suggested by Burton and Obel (2011), computational models can act as “Laboratories” enabling scholars to experiment. Given the understandings from Chapter 4 about the creation of a new market arrangement from FoodShare’s case, the stylized model of this chapter helps us experiment with the different possibilities that can arise from different policies in the creation of such markets.

The model is composed of coupled nonlinear differential equations that capture a diffusion process on both the supply and demand sides as the new market grows. Differential equation models have been widely used in the social sciences for phenomena such as innovation diffusion (Mahajan et al., 2000) and epidemiology (R. M. Anderson, May, & Anderson, 1992) and can easily

capture a wide range of feedback effects in time. While other modelling approaches, such as agent-based modelling, can be used to model the dynamics of diffusion as an alternative to differential equation models, there are advantages and drawbacks associated with both approaches (Rahmandad & Sterman, 2008). Since the main goal here is to capture the diffusion of practices on both sides as well as at the interaction level, a level of aggregation with the homogeneity assumption in the main state variables in the model is reasonable and makes the differential equation models more suitable for attaining the modelling goals.

5.5 Model Scope and Concepts

In developing the model, the first fundamental assumption is related to the diffusion and adoption of new arrangements of a nascent market. New markets emerge as a result of broad diffusion of market practices, at least in a collectivity of suppliers and consumers. For instance, in creating local produce markets for urban low-income communities, the population of local farmers, other producers, and prospective entrepreneurs needs to adopt the new arrangements, such as new business models and new production, distribution, or business processes to promote the Good Food Markets. In the very early stages of the GFM, participation in FoodShare's initiative had to be diffused throughout the population of farmers, producers, and farmers' associations on the supply side. Simultaneously, new purchasing and consumption practices aligned with local community markets and fresh produce offerings had to be diffused throughout the population of individual and institutional customers. This inclusion of the demand side's agency in conceptualizing socially-oriented markets reinforces the centrality of customers in market-based development approaches (Anderson, 2014). Along the same lines, in the

FoodShare case, the role of consumers in fueling the emergence of such markets attracted more attention, as articulated below in the *Toronto Food Strategy* of 2010:

To a remarkable degree, the success of new food “niche markets” has been driven by demands from consumers, rather than governments, major corporations or food producers – signaling a dramatic increase in the role of eaters and citizens in shaping the emerging food system. While these markets are still relatively small, they are being actively sought out by major food retailers, suggesting a potentially powerful role for consumers in creating larger structural changes to the food system. (Toronto Food Strategy, 2010)

In its most basic sense, this market emerges only when new market arrangements diffuse simultaneously within populations of both the supply and demand sides. These diffusions are influenced by a combination of endogenous social pressures, actors’ effective choices for maximizing utility, and exogenous interventions by strategic actors. It is important to recall that given the complexities associated with new arrangements and their social benefits, socially-oriented markets do not grow organically. In most cases, they are the outcome of designed initiatives by strategic actors who carefully build supply and demand communities and intervene to protect the market arrangements in the early stages. In the model developed here, diffusion parameters of both sides include endogenous social pressures as well as the utility-based decisions of actors. The impact of strategic actors is present through their interventions or as policy levers that ultimately influence diffusion parameters. For this reason, after developing and discussing the full model, I demonstrate how model parameters are controlled by the different policy lines that a strategic actor may implement.

I model the interlinked simultaneous diffusion starting from well-known diffusion processes, such as for an innovation, a product, a disease or a riot. Conceptually, the adoption of new arrangements on either side (supply or demand) is similar to diffusion of an innovation among a population of firms or individuals, as suggested by Rogers (1995, 2010), or the spread of diseases

in a population susceptible to that disease, and, mathematically, to the diffusion of a new product in a consumer population (Bass, 1969). In accord with these models, in my model, the members of each population become aware of the new market through different communication channels in their own social system by exposure and word of mouth; they try it as a result of their interest or the legitimacy of the practice in their community, or simply through peer pressure and the bandwagon effect. They constantly evaluate the new arrangement to decide whether to retain it or leave the market. In the socially-oriented market model, I assume that market arrangements are diffused in populations of supply and demand actors. In reference to product or innovation diffusion, what is being diffused in the target population (e.g. a new consumer product) has a clear boundary. However, market arrangements here encompass an array of business model innovations, organizational forms, and service innovations on the supply side and equivalent consumption and purchasing behaviors on the demand side. In the mini-grid electricity case, small-scale renewable energy production for off-grid consumption was a new business model that had to be diffused in a population of prospective suppliers.

Similar to diffusion models for an innovation, in coupled diffusion models, on each side there are two populations. One is the potential population who have not yet adopted the practices, and the other is adopter population who have adopted the arrangement. According to Bass's model, at each point in time potential adopters transform to adopters as a result of two forces: external influences (e.g. advertising or other communications) and internal influences resulting from social exposure between adopters and potential adopters. According to Bass's model, the probability of adoption by potential adopters is linear with respect to current adopters, thus indicating interpersonal communications at the core of diffusion (Mahajan, Muller, & Bass, 1990).

To develop a coupled diffusion model in two populations, I follow the suggestion of extending diffusion to incorporate social interdependence of all kinds, including network externalities and social signals (Peres, Muller, & Mahajan, 2010). Network externalities are at work as the utility of the product increases as more costumers adopt it or a complementary product (Stremersch, Tellis, Hans Franses, & Binken, 2007). Social signals, on the other hand, indicate the social information that individuals infer from adoption of an innovation by others (Peres et al., 2010). I apply this idea to diffusion of market arrangements in the context involving two interdependent populations. In this sense, interdependency of the two sides means that, on each, diffusion is also influenced by network externalities and social signals from the other side. Consequently, suppliers adopt the new market arrangement as they reflect on diffusion of the model into the demand population; and, similarly, demand-side actors adopt the new market arrangement as they receive signals of diffusion in the suppliers' population. By incorporating this model on each side, adoption of new market arrangements not only is influenced by the social system on the same side (e.g. peer pressure, legitimacy, imitation, etc.) but also by the system on the other side of the market (e.g. legitimacy, availability of options, financial benefits, etc.).

The second extension to the established diffusion models to capture market emergence is by adding the concept of utility, that is, the combination of all fulfilments that an actor should receive to maintain a level of satisfaction. We can assume that adopters on each side constantly evaluate their utility to make decisions about pursuing or dropping new market arrangements, which is in line with the calculative perception of market actors (Callon & Muniesa, 2005). The notion of utility integrates feedbacks from both the same side and the opposite side of the market. For the supply side, for instance, this signifies the feedback about the level of

competition in the market, the legitimacy of the new market among peers, and the profit margin as a result of demand from the demand side. Similarly, on the demand side, utility integrates concepts of legitimacy among consumers as well as the legitimacy of the market as whole and the availability of options as a result of the presence of suppliers. In socially-oriented markets in which the arrangements are new to the actors, utility indicates the overall benefits that supply, and demand actors receive from persisting in this new arrangement given the state of the market as a whole.

Consequently, we have two utility-based diffusions operating in interaction with each other. In sum, these two diffusions are interlinked by two mechanisms: first, social exposure from the same and opposite sides, which means that at each point in time the state of the system on each side influences the level of diffusion in the opposite side. Second, the utility of each side is evaluated by the feedback from both sides of the market. The success of market creation as a whole depends on these two diffusion processes simultaneously occurring successfully. Figure 15 presents a schematic that shows the model boundary and key concepts of the coupled diffusion model. As can be seen, while two diffusion dynamics operate on both the supply and demand sides, each influences the dynamic on the other side. Also, the diffusion state on each side forms a market utility that influences the diffusion dynamic in a closed feedback process.

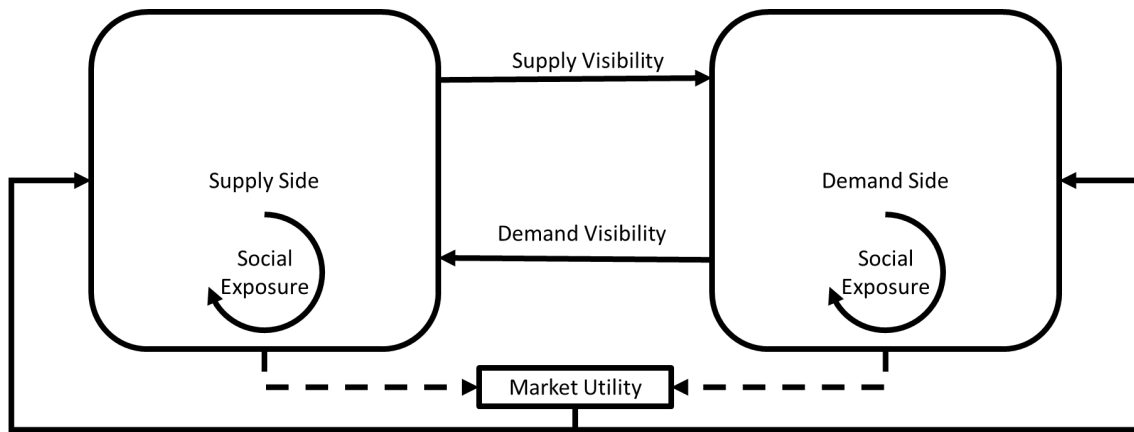


Figure 15- Schematic of Model Boundary and Concepts

5.6 Computational Model

5.6.1 Utility-Based Diffusion Model

I first develop a utility-based diffusion model for one side to capture the concept of constant evaluation by actors based on their perceived utility. It should be noted that in all the analyses that follow, two interdependent simultaneous diffusions are present. Only for purposes of demonstration and to make the model easy to understand, I first describe a utility-based diffusion model for one population. Then I explain merging two diffusion models to develop a coupled diffusion for the whole market.

On each side of the market, the population is divided into two categories: potential adopters and adopters that are analogous to susceptible and infected populations, respectively, in disease-diffusion models. I denote these two categories with P (potential adopters) and A (adopters), respectively. This notation is used to develop a general model that can be applied to each side. For each side of the market, two state variables are considered: $U = [P, A]$. State variables

capture the state of the system, that is, the percentage of the population that are either potential adopters or adopters.

The change of these variables over time is governed by a set of ordinary differential equations written in a general form as $\frac{dU}{dt} = G(U,t) - D(U,t)$, where G and D respectively denote the growth and depletion functions of the state variables, U . In this work, it is assumed that the total populations on each side remain constant (e.g. the total number of farmers or consumers are constant in case of the Good Food Market in a specific geographical area). In other words, the sum of the initial number of adopters and potential adopters is constant. By adopting and then dropping the arrangements, adopters leave the market and are no longer included in the population.

In the model, potential adopters may adopt the market arrangements and therefore become adopters (suppliers/customers). For the sake of simplicity, it is assumed that the size of potential adopters does not increase, an assumption consistent with population dynamics modelling (e.g. Rahmandad & Sterman, 2008). Therefore, P has no growth rate. The depletion rate of potential adopters illustrates the rate at which adoption occurs and adopters grow. These assumptions yield $G_p = 0$ and $D_p = G_A = -\frac{dP}{dt}$. Our focal variables are adopters on each side of the market, and we focus on developing the differential equations that explain the change of adopters over time. Like Bass's diffusion model (1969), the model I build is based on the idea that adopters can be classified into innovators and imitators who adopt the practices as a result of external influence or advertising effect and internal influence or word-of-mouth effect, respectively. As the number

of adopters increases over time, the greater portion of adoption occurs through imitation of the current pool of adopters.

I extend this model by building on the idea of a trial period and an evaluation stage in Roger's innovation diffusion model (1995). Building on this, it is assumed that adopters constantly evaluate staying in or leaving the market and may leave after the trial period. To add this effect into the model, I formulate the rejection of market arrangements by adopters after an evaluation time, T . Evaluation is modelled as a notion of adopters making decision about staying in or leaving the market on the basis of their perceived benefits-to-costs associated with the market, which is a function of "utility". Utility, u is the combination of all benefits that an individual should receive to maintain a level of satisfaction. Utility of the market in the model is directly influenced by the interdependence characteristic of these markets. For this reason, the utility for each side combines the number of adopters on the same side as well as on the other side. This is an interrelation conceptualization of utility. It broadens the signaling of supply side actors to each other, as suggested by White, (1981), in a way that the actors on *both* the supply and the demand sides observe each other and adjust market behavior in an interactive and iterative manner. The state of the market on the same and opposite sides signals an array of implicit and explicit perceived economic, social, and institutional benefits and costs associated with joining the nascent market. The presence of the actors of the same and opposite sides is an indirect reflection of factors such as competition, profit margins, prices, market infrastructure, legitimacy, and convenience of the new arrangement, among others. The perceived utility can be a fixed value for a community of stakeholders or may vary over time as a market evolves.

The impact of utility is modelled to determine the percentage of adopters that leave the market through a utility function. This is the decision point after or during the trial period in which adopters on each side decide whether or not to drop the market arrangement. Utility can mathematically vary from negative to positive infinity. At one extreme, when the utility of staying in the market is negative infinity, all the adopters will leave after the trial period ($f(u)=1$); and when utility is positive infinity, none will leave ($f(u)=0$). In the context of this model and for simplicity's sake, it is assumed that the utility of either staying or leaving, two discrete events, varies across the populations on both sides as a random variable. The simplest model for utility function is adopted from discrete choice theory, namely, logistic function. Logistic function is the probability of a binary discrete outcome based on an independent variable. Therefore, the percentage of adopters who drop the market arrangement as a function of perceived utility can be defined as $f(u) = 1 - 1 / (1 + e^{-\beta u})$, where β is an exponential factor that indicates utility variation among individuals. When there is high variation among adopters, β is low and vice versa. In this formulation zero utility means that staying in or leaving the market has no additional benefit or costs for the adopters, resulting in a fifty/fifty percentage for dropping or retaining the market arrangement.

It follows that the initial model for one side of the market can be written as:

$$\frac{dP}{dt} = -(c\theta P \frac{A}{N} + aP) \quad (1)$$

$$\frac{dA}{dt} = c\theta P \frac{A}{N} + aP - \frac{f(u)}{T} A \quad (2)$$

where N is the total population, c is the contact rate (i.e. the number of adopters with whom a potential adopter contacts per unit of time), and θ is the probability of adopting when an adopter contacts with a potential adopter. Consequently, the first term on the right side of Eq. (2), $c\theta P A/N$, is the growth rate of the adopters through social influence. While a is the probability of adoption by potential adopters through external influences or advertisements, the second term in this equation, aP , is the rate of adoption by “innovators” (Bass, 1969). As discussed, these two terms together represent the rate by which adopters grow and is equal to the rate by which potential adopters deplete in Eq. (1). The third term in Eq. (2) presents the depletion rate of adopters after the evaluation period, T , depending on the perceived utility of the market. In order to avoid numerical dependencies on alternative units of choice, the differential equations in this chapter are all non-dimensionalized and variables are denoted in their dimensionless forms.

5.6.2 Coupled Diffusion Model

To develop a model for the emergence of a socially-oriented market, we need to capture two simultaneous diffusions that are interconnected by feedback mechanisms. In the previous section, a set of differential equations was introduced that govern the diffusion of a new arrangement in one population and was advanced to include the concept of utility, i.e. Eqs. (1) and (2). In order to build the full model, I first discuss how diffusion on each side is affected by the presence of the other side. In general, a major requirement for creating new markets is building relationships between communities of producers and consumers (Kurland & McCaffrey, 2014; Weber et al., 2008). This is even more critical when it comes to socially-oriented markets in contexts where high interdependency exists between the two sides. High interdependency

between the supply and demand sides is the defining characteristic of such markets. Therefore, the emergence of a market in its early stages faces a chicken-and-egg problem of introducing both sides at the same time. The first step in developing the coupled diffusion model is to define the way diffusion mechanisms on each side interact with each other.

5.6.2.1 Cross-fertilization of each side by the other

Because of the high interdependency between the sides and the local matching between supply and demand, the presence of actors on one side influences the actors of the other side in terms of growth. I call this cross-fertilization between the sides the “visibility” of one side to the other. For consumers of the Good Food Market, for example, higher supply visibility means more market outlets across the city, a larger variety of farmers’ produce available at the markets, and more affordable prices. For local farmers in the same example, higher demand visibility means a larger consumer pool, guaranteed sales, and hope for future growth of the market, encouraging farmers to invest in their participation in the new market. Generally, the visibility of these actors to each other is one critical growth factor for the market to grow on each side. In the context of creating a market for grass-fed meat and dairy products, Weber et al. (2008) discuss how communicating the collective identity and cultural codes of producers to consumers helped stimulate new modes of actions in consumers and led to larger networks of aware consumers who were eager to join. They also explain how market exchange with consumers gave feedback to the producer communities, encouraged entrepreneurship emotionally and economically, and fueled production by motivating entry and commitment to the market (Weber et al., 2008). The effect of the visibility of each side to the other side in the model is the mathematical representation of this reciprocal influence. It should be recalled that these parameters can be

influenced by the presence of strategic actors stimulating social signals within each side and across both sides.

The effect of visibility should be combined with the effect of word of mouth as engines of growth in one population. I use one of the standard models to combine multiple influences to integrate the effect of visibility and word of mouth into the model. Using the Constant Elasticity of Substitution (CES) production function to model the combined effect of these two, Eqs. (1) and (2) are rewritten to include this reciprocal effect of each side on the other. Noting that two focal variables exist on each side (i.e. potential adopters P and adopters A), the full model consists of four differential equations. These equations are non-dimensionalized and written in a general format as

$$\frac{dP_i}{dt} = -[\omega_i(\alpha_i \Omega_i A_i)^\rho + (1 - \omega_i)(\chi_i V_i)^\rho]^{1/\rho} P_i - \kappa_i P_i \quad (3)$$

$$\frac{dA_i}{dt} = [\omega_i(\alpha_i \Omega_i A_i)^\rho + (1 - \omega_i)(\chi_i V_i)^\rho]^{1/\rho} P_i + \kappa_i P_i - \alpha_i f(u_i) A_i \quad (4)$$

in which $i = \{s, d\}$, where s stands for the supply side and d stands for the demand side.

$V_s = V_s(A_d)$ and $V_d = V_d(A_s)$ are visibility functions, and visibility on each side is a function of adopters' density on the other side. ω_i is the weight factor to combine the effect of word of mouth and visibility of the other side, and $\rho = \sigma - 1/\sigma$ is the exponent factor defined according to the elasticity of substitution. α_i is a non-dimensional factor determining the ratio of the evaluation times of the demand and supply sides, i.e. $\alpha_s = \sqrt{T_d/T_s}$. χ_i and κ_i determine the maximum effects of visibility and advertisement on adoption rate, respectively.

When $\sigma \rightarrow \infty$ then $\rho \rightarrow 1$. In this case, the effects of word of mouth and visibility are perfectly substitutable, i.e. their effects are summed so that even if one of them is zero, the other one can still drive the growth. On the other hand, when $\sigma \rightarrow 0$ and $\rho \rightarrow -\infty$, then the two effects are perfectly complementary, that is, they are multiplied so that both mechanisms need to be present to result in the growth of a population on each side. In the results reported here, ρ is assumed to have one meaning, namely, that the two effects are perfectly substitutable.

5.6.2.2 *Joint Market Utility*

The second link between the two sides is through build-up of utility for each side. As mentioned, utility can be fixed or may change over time. For developing the full model, we need to take utility changes into account. Utility of staying in the market changes according to the population on the same side as well as on the other side at each point in time. The same side of the market influences utility as a result of legitimacy, peer pressure, and competition for the same resources. Besides, the other side influences utility as a result of the attractiveness of a market and the available market infrastructure. Higher diffusion on the demand side makes the market more attractive for suppliers, and a higher number of suppliers provides higher access and availability of the new practices for the demand side. Therefore, utility can be defined as a function of the ratio of the number of adopters on the same side and on the other side of the market. I assume that adopters compare this ratio with a reference value to perceive utility as a positive or negative signal for retaining or dropping a market arrangement. This reference is a conventional wisdom of the collectivity of actors—whether customers or suppliers— about the threshold for attractiveness of a particular market. In a population in which this reference value is low, even a small hope for market growth leads to adopters perceiving positive utility. In a

population with a higher threshold, future market growth and its benefits should be high enough so that adopters would remain in the market. This reference value is a point at which utility is considered to be zero. In mathematical terms, utility can be defined as:

$$u = \frac{A'/A - (A'/A)_r}{(A'/A)_r} \quad (5)$$

where A' represents the number of adopters on the opposite side, and subscript r denotes the aforementioned reference value.

From Eq. (5) the market utility for each side is a function of the ratio of the number of adopters on both sides compared to a reference ratio that is an aggregate psychological threshold for the adopter population in decisions regarding retention or rejection of the market. In the full model, the number of adopters on both sides changes as the market evolves, and so does the utility of the market for each side. Mathematically, the two utilities are written as $u_s = \frac{A_d/A_s - (A_d/A_s)_r}{(A_d/A_s)_r}$ and $u_d = \frac{A_s/A_d - (A_s/A_d)_r}{(A_s/A_d)_r}$, while A_i in the full model is the number of adopters on one side $i = \{s, d\}$. As modelled, this utility determines the percentage of adopters retaining (and dropping) the market arrangement through the utility function. In this sense, utility is built up by input from the state of the system and gives feedback to the system through the utility function signal. The first step is then understanding the tipping behaviour of the system given the changes in utility as the market advances. This analysis is provided at the beginning of the findings section of this chapter. Before that, I discuss below how the model can be further advanced to capture market sustainability in the long run.

5.7 Extending the Model for Market Establishment

The model developed so far captures the dynamics of adoption influenced by diffusion on both sides and the utility of the market for both sides. Solving Equations (3) and (4) numerically for the two hypothetical populations, we can find adopters and potential adopters' values over time. The initial value for the adopters, A_0 , is assumed to be the remaining part of the population, i.e. $A_0 = 1 - P_0$. Figure 16 schematically illustrates the behaviour of two focal variables on each side over time, as is familiar from product-diffusion models (Bass, 1965). Over time, the potential adopters' population decreases because we assumed no growth rate for it. Assuming the conditions for growth, i.e. a sufficient contact number in a given population of potential adopters, the adopters' population increases since the growth driver dominates over the depletion driver, given the utility of the market. Increase in the population of adopters leads to higher competition, hindering the utility of staying in the market and making the depletion driver dominate growth so that adopters decrease. This behavior is controlled by the initial conditions of the market (e.g. initial percentage of the population who have adopted). However, it does not provide any information about the market's success in the long run, meaning what percentage of the populations on both sides will retain market arrangements after the trial period. For analyzing such a metric, we need to solve the equations to capture the evolution of the market and its focal actors over time.

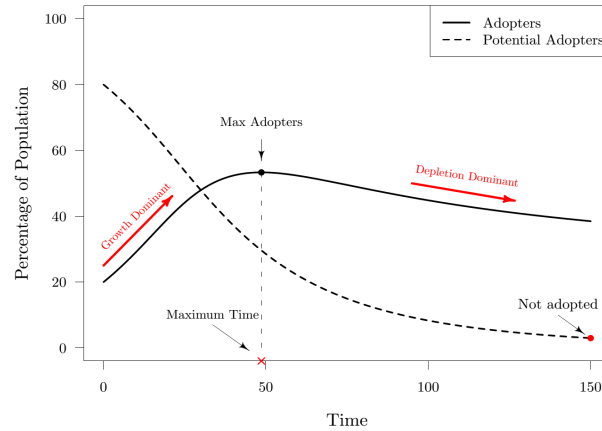


Figure 16- Schematic behavior of two focal variables in case of initial growth

Before analyzing the model dynamically, we have to extend the model to be able to capture long-term success of the market. Having two focal variables (potential adopters and adopters) on each side of the market and focusing on the variable of interest (adopters) makes the model simple enough to compare analytically the two opposing dynamics at work and to discern the tipping boundary for the system. However, with this structure, no matter how favorable the market is, adopters will finally drop the market arrangement as a result of the depletion term in the adopters equation, i.e. Eq. (4). The only effect that utility and interaction with the other side impose in a successful market is that it takes longer for all adopters to drop the practices, a larger portion of potential adopters try the market arrangement at least once, and the maximum number of adopters reaches a higher level.

Therefore, with the current model the dynamic does not capture establishment of the market arrangement on both sides after the trial period, which would mean the success of the market in the long run. To be able to capture this, I extend the model to include two additional major variables that capture the adopters who, after the trial period, evaluate the arrangement's utility and either keep the arrangement forever or else drop it. Examples in the Good Food

Program would be a local farmer who makes a long-term commitment to sell at the Good Food Market or an individual customer who changes her lifestyle and purchasing behavior by shopping at Good Food Market outlets.

To model this establishment in the current model, the variable “adopters” changes to “trial adopters”, and two major variables are added to each side: “established adopters” and “abandoners”. Established adopters are those trial adopters who continue their presence in the market. These adopters are the ones that have evaluated the market’s utility to be higher than their threshold and found the market favorable. Abandoners are those trial adopters who try the arrangement for a time, do not find the market favorable, and leave it forever. It should be noted that the dynamics governing the system do not change, and that these two variables only record the long-term results of the market. Building on the coupled diffusion model introduced above, I extend the model to the following model:

$$\frac{dP_i}{dt} = -[\omega_i(\alpha_i \Omega_i A_{total})^\rho + (1 - \omega_i)(\chi_i V_i)^\rho]^{1/\rho} P_i - \kappa_i P_i \quad (6)$$

$$\frac{dA_{t,i}}{dt} = [\omega_i(\alpha_i \Omega_i A_{total})^\rho + (1 - \omega_i)(\chi_i V_i)^\rho]^{1/\rho} P_i + \kappa_i P_i - \alpha_i f(u_i) A_{t,i} - \alpha_i (1 - f(u_i)) A_{t,i} \quad (7)$$

$$\frac{dA_{e,i}}{dt} = \alpha_i (1 - f(u_i)) A_{t,i} \quad (8)$$

$$\frac{dA_{a,i}}{dt} = \alpha_i f(u_i) A_{t,i} \quad (9)$$

Where $i = \{s, d\}$ represents either supply or demand respectively. Also P , A_t , A_e , A_a respectively denote potential adopters, trial adopters, established adopters, and abandoners. Besides, $A_{total,i} = A_{e,i} + A_{t,i}$ denotes the total active adopters in the market regardless of whether they are trial adopters or established ones. As can be seen from this extended version of the model, Eqs.

(6) and (7) are very similar to the initial model (Eqs. (3) and (4)), since the model's dynamics do not change. The only difference is that we now have two types of adopters in the market (trial and established) both of which generate word of mouth. Similarly, visibilities and utilities are functions of total adopters (trial and established) on the other side, i.e. $V_s = V_s(A_{total,d})$ and $V_d = V_d(A_{total,s})$. Similarly, the definition of utility remains the same, being the function of total active adopters on the other side. With this model, trial adopters $A_{t,i}$ either become established adopters $A_{e,i}$ or abandoners $A_{a,i}$ depending on the utility level. Therefore, solving this two sets of equations numerically enables us to capture the number of established adopters, given enough time, as an indicator of market success or failure.

5.8 Findings

Since the model was developed in three consecutive stages, the findings below present the analysis of each stage. First, a utility-based diffusion model in one population was developed. Second, a coupled diffusion model was introduced connecting two interconnected diffusions. Third, the coupled diffusion model was advanced to capture the establishment of adopters on each side, indicating market success in the long run. In what follows, first, the tipping behaviour of a utility-based diffusion model is presented. Then I present the tipping behaviour of two-sided diffusion for a coupled model. Finally, by numerical simulation of the final coupled diffusion model that captures establishment, market success in various scenarios is discussed.

5.8.1 Tipping boundary for one side of the market

In order to analyze the utility-based diffusion model, we need first to explore the conditions under which diffusion behavior changes dramatically so that it leads to widespread adoption or

rejection of a new arrangement. Systems with two opposing dynamics at work probably have tipping points. In the utility-based diffusion model developed above, growth and depletion of the adopters' population are controlled by social influence mechanisms (within and across sides) and evaluation of market utility on each side. Depending on which of these two dominates, the system follows a different path. In epidemiology, the notion of an epidemic is when an infected population is on the rise. This occurs when the rate by which susceptible people become infected exceeds the rate by which infected ones recover. In epidemiology, finding the tipping point is important to identify conditions for not having an epidemic in a population. Conceptually, market success is similar, as we need to have widespread adoption of market arrangements in the population of supply and demand. The goal here is to find the conditions in which growth of the adopters is self-sustaining and larger than their depletion. I use the same term for market growth, namely, "epidemic", to refer to the conditions under which widespread adoption of market arrangements in a population occurs, indicating that the state of the system passes a tipping point at which growth dynamics outgrow depletion ones. Mathematically, this is equivalent to conditions for the temporal derivative of the adopters variable, A is positive, i.e.

$\frac{dA}{dt} = c\theta P \frac{A}{N} + aP - \frac{f(u)}{T} A > 0$. A necessary condition for this to hold is

$$\frac{\Omega P^*}{f(u)} > 1 \quad (10)$$

where $P^* = P/N$ is the normalized value of potential adopters, and the term $\Omega = c\theta T$ is a non-dimensional parameter that determines the combined effect of social interaction rates, c , probability of adoption due to contact, θ , and evaluation time, T . In this necessary condition, growth is due only to internal influences, i.e. word of mouth, and depletion is governed by the

utility effect. The parameter Ω is called the contact number in epidemiology and is one critical factor in determining epidemic tipping points for diseases.

Similarly, according to Eq. (10), for any given population of potential adopters, there is a critical value for contact number Ω that determines the balance of growth and depletion rates, the condition determining the *tipping point* of the system. Below the tipping point, the depletion rate dominates, resulting in adopters decreasing. Above the tipping point, the growth rate dominates, and adopters increase.

Eq. (10) is an extended form of the epidemic condition for disease spread in the Susceptible-Infected-Recovered (SIR) model (Kermack & McKendrick, 1933; May & Anderson, 1979). The SIR model is an epidemiological model that predicts the theoretical number of people infected with a contagious disease in a closed population over time. In its simplest form, the tipping point is when $\Omega P^* = 1$, while in our model the tipping point is obtained from $\Omega P^* = f(u)$, which takes the effect of utility into account. This equation gives the tipping point conditions of the system, i.e. the boundary that separates the states in which the growth dynamics are dominant as opposed to the states in which the depletion dynamics dominate. It should be noted that the Kermack-McKendrick model of contagious diseases is a special case of the general model proposed here in which utility is negative infinity, i.e. no one benefits from remaining infected!

In analyzing the tipping points from Eq. (10), two parameters play a role: the contact number, Ω , which is an indicator of growth parameter, and the utility of the market, u . Therefore, I focus on these two parameters in analyzing the tipping points. Assuming the utility

as a fixed value in Eq. (10), we can find the tipping boundary as a function of contact number Ω and potential adopters P^* .

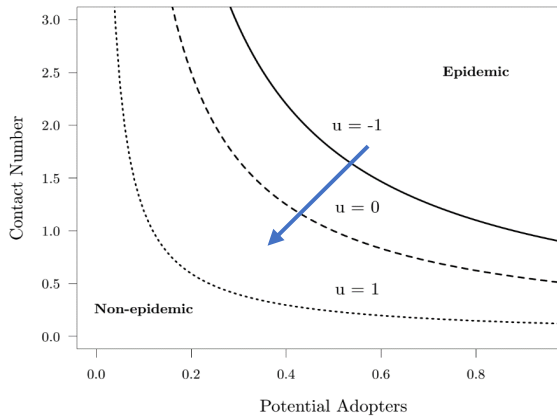


Figure 17- Tipping boundaries for fixed utility

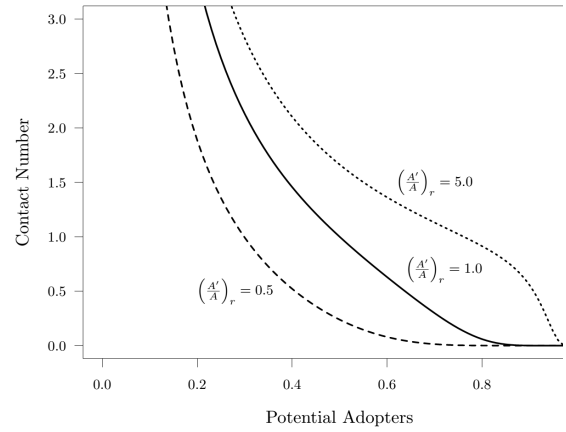


Figure 18- Tipping boundaries for variable utility

Figure 17 demonstrates the tipping boundaries for various values of fixed utility. Note that for fixed values of utility, the tipping point is independent of the adopters. The right side of each tipping curve represents the area in which growth dominates over depletion and the number of adopters increases, which would be similar to having an epidemic in the market. As can be seen the tipping curve depends on the utility value. When the utility is higher, the market is more attractive and adopters have less tendency to reject the new arrangement; consequently, adopters grow at a higher rate. This corresponds to a less constrained condition and larger area for having an epidemic, shifting the tipping boundary to the left (as shown by the arrow). With lower numbers of utility, we need a higher contact number to reach an epidemic condition. In other words, when the value of keeping new arrangements is low, we need a much stronger growth driver and longer persistence time not to leave the market, Ω .

This tipping boundary is based on the assumption that perceived utility is a constant value and does not change over time. This assumption is true for temporal periods in which no information is communicated between current adopters and potential adopters for or against the value of the market or situations which after a trial period do not share their perception of the market because of lack of communication channels or for other reasons. A simple example is the case of a market for green products on the side of the consumers in which many may adopt the practice of buying green products but do not continue this practice without engaging with other potential customers.

However, in reality, utility is not a fixed value and changes over time as state of the market changes. With the definition of utility proposed above, we can explore the impact of variable utility on the tipping boundary. Figure 18 illustrates the tipping boundaries based on the utility definition given in Eq. (5) and for various values of the reference ratios. As can be seen, a higher reference ratio is equivalent to a smaller area for having growth overcome depletion (epidemic). A higher reference ratio means that current adopters have a higher (more difficult to reach) threshold for staying in the market. Therefore, for a specific number of potential adopters in the contexts with a higher threshold, for the market to grow, we need larger a contact number—growth driver—to reach an epidemic condition.

These findings illustrated in Figure 17 and Figure 18 are consistent with variations observed in studies on the emergence of new sectors. For instance, (Sine et al., 2005) found that sector entrants vary in the building rate of new firms on the basis of their current type of technologies. For example, they explored how building regulative and cognitive institutions had a stronger impact on those firms using risky novel technologies compared to ones using established

technologies. They argue that this is rooted in a broader psychological argument about the perception of risk based on a firm's background. In our study, this is equivalent to a lower threshold for adopters with a particular background retaining new practices (novel risky technology in this example) and, therefore, a larger area for an epidemic in the population of adopters.

Up to this point, I have analyzed how adding utility to the diffusion model affects the tipping behavior of one diffusion in one population. In the next section, I discuss the tipping behavior of the market when two interconnected diffusions are at work. This two-sided tipping boundary enables us to determine if a market has the potential to become widespread in target populations.

5.8.2 Analysis of a two-sided tipping boundary

When extending the tipping analysis to two populations, we can analytically find the conditions for having simultaneous growth on both the supply and demand sides, namely, $dA_s/dt > 0$ and $dA_d/dt > 0$. While $\Omega_i = c_i \theta_i T_i$ is the contact number for each side, the mathematical formulation necessary to ensure an epidemic condition on both sides is a generalized form of Eq. (10): $\frac{\Omega_i P_i}{f(u_i)} > 1$, where $i = \{s, d\}$. From the definitions of utility for each side, we have the following relation:

$$(1 + u_s)(1 + u_d) = \frac{1}{(A_d/A_s)_r (A_s/A_d)_r} \quad (11)$$

This shows a trade-off between the utility for each side because the right side of the equation is determined by the psychological characteristics of the supply and demand collectivity

in relation to the nascent market. Increasing the utility for one side results in a decrease in the utility for the other side. With the simple definition of utility used here, the utility of the supply side increases if the market share of each adopter increases, i.e. the demand-to-supply ratio A_d/A_s . This increase is perceived as a lower number of suppliers per capita for consumers, i.e. a lower supply-to-demand ratio A_s/A_d , implying lower accessibility to the market and lower overall legitimacy for the demand side. This notion of a trade-off between utilities is the most significant aspect of studying market creation using a model of coupled diffusion.

Substituting the definitions of utility in the necessary condition for an epidemic on both sides and solving it for the number of adopters, we can draw the boundary of having an epidemic for each side and find the conditions for the growth of adopters on both sides. Defining $\gamma_i = \Omega_i P_i$ for the supply, γ_s , and the demand, γ_d , sides and substituting the initial values of adopters yields the condition for an epidemic on both sides, as in Eq. (12). The left boundary determines the condition in which the demand side becomes epidemic, while the right boundary defines the condition in which the supply side becomes epidemic.

$$\left(\frac{1}{\beta_d} \log \left(\frac{1}{\gamma_d} - 1 \right) + 1 \right) \left(\frac{A_s}{A_d} \right)_r < \frac{A_s}{A_d} < \left[\left(\frac{1}{\beta_s} \log \left(\frac{1}{\gamma_s} - 1 \right) + 1 \right) \left(\frac{A_d}{A_s} \right)_r \right]^{-1} \quad (12)$$

Figure 19 shows the intersection of these two conditions as a function of supply and demand adopters for $\Omega_s = \Omega_d = 1$, $\beta_s = \beta_d = 2$, and $(A_s/A_d)_r = (A_d/A_s)_r = 1$. Initially, it is assumed that all the populations on the demand and supply sides are either adopters or potential adopters, i.e.

$P_{s,0} = 1 - A_{s,0}$ and $P_{d,0} = 1 - A_{d,0}$. This is a valid assumption, as the total market size is equal to the sum of those who have already adopted and those who may adopt from this point on, practically neglecting those who had adopted the market and left it before the start of the dynamic model. As expected, the tipping boundaries for an epidemic on both sides are similar and mirror each other. The hatched area demonstrates the region of initial conditions resulting in instantaneous growth in the population of adopters on both sides.

This figure demonstrates that if we assume complete symmetry on the two sides (i.e. the parameters of growth or depletion are equal for both sides), then there are certain values for the adopters on each side that can produce a simultaneous epidemic. This means instantaneous growth in the adopters on both sides. Figure 19 shows the combinations of the initial number of adopters on the supply and demand sides that provide this condition. The solid line is the tipping boundary for the supply side (i.e. the initial adopters on the supply side that lead to an epidemic). Above this line the number of suppliers is higher than the expected threshold, decreasing the utility and making adopters leave. Similarly, the dashed line is the tipping boundary for the demand side, above which for the demand side's initial adopters an epidemic occurs on the demand side. Consistent with the utility concept, for certain values of supply adopters, if demand adopters are higher than a threshold (below the dashed line), accessibility and, therefore, utility decrease for customers, leading to an exit from the market. In consequence, the leaf-shaped area is the only combination of the supply and demand sides' initial adopters in which both sides experience growth. Outside this shaded area, either side or both sides will experience depletion in the number of adopters, thus causing the new market arrangements to fail.

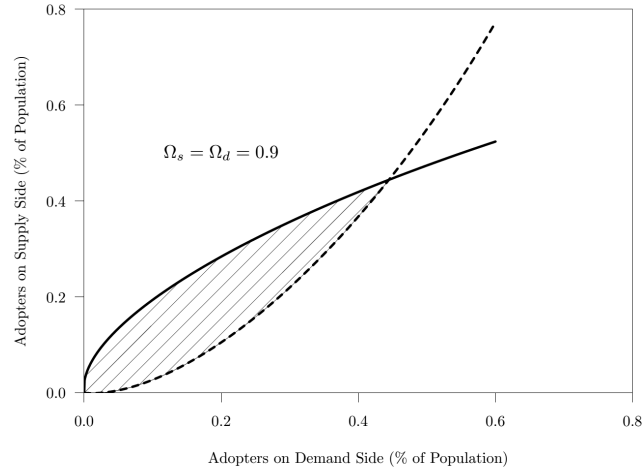


Figure 19- Coupled tipping boundary

Dependence of the coupled epidemic area on the system's parameters: The shaded area in Figure 19 depends on the parameters of growth or depletion on either side. As mentioned, the contact number Ω and utility reference ratio $(A_s/A_d)_r$ or $(A_d/A_s)_r$ are parameters influencing adopters' growth and depletion, respectively. For instance, by increasing contact numbers symmetrically for both sides (Figure 20), the shaded leaf-shaped area gets larger, that is, with a larger number of adopters on each side there is growth on both sides. Similarly, decreasing the utility reference ratio on both sides (Figure 21) makes the decision-making threshold easier to achieve for adopters to stay in the market and makes the leaf-shaped epidemic area larger.

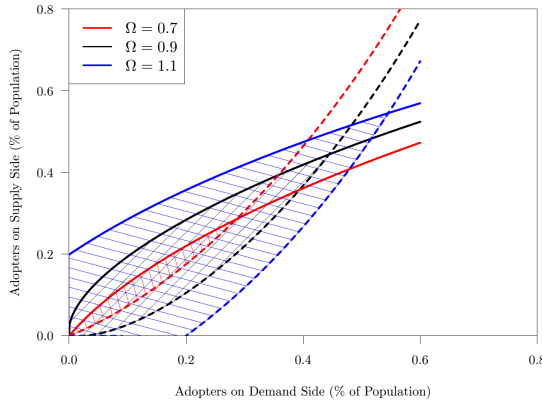


Figure 20 – Effect of contact number on coupled epidemic

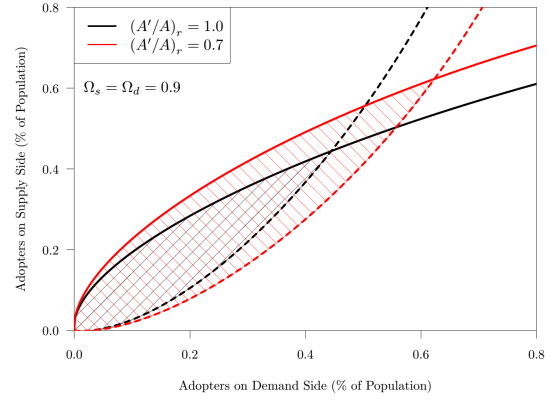


Figure 21 – Effect of utility reference ratio on couple epidemic

These two graphs assume that the two sides of the market are exactly similar in their approach to adoption (growth of adopters) and de-adoption (depletion of adopters) of the new market. However, the actors on these sides may differ in social exposure indicators, such as how frequently they contact their peers, how strong peer pressures are, and how long it takes to attain maximum persistence before evaluating the market; all of which are denoted in contact number. For instance, farmers may change their decision after a growing season not to sell to certain good food programs, while customers may change their purchasing decisions every week. Likewise, adopters on the two sides may have different thresholds for evaluating utility. Accordingly, there can be different asymmetric coupled epidemic areas based on the parameters on each side. Assuming a market in which the contact number is lower for suppliers than it is for consumers (e.g. suppliers influencing each other less in adopting practices as compared to consumers), there will be stiffer constraints from the supply side, shifting the tipping boundary of the supply epidemic to right side and making the coupled adoption area smaller (Figure 22).

The same is the case with having a lower contact number on the demand side, which makes the epidemic area smaller from the demand tipping boundary (Figure 23). If we assume consumers have a lower utility reference ratio (i.e. they are more easily convinced about the positive benefits of the market) compared to suppliers, the epidemic condition on the consumer side is looser, leading to a larger area of coupled epidemic (Figure 24).

The analyses up to this point are based on analytically exploring the tipping behavior of the system. However, as presented in the coupled model, the number of adopters change over time, thus affecting the utility of the market as well as social exposure for the other side. Therefore, we need to follow the change of four major focal variables, namely, potential adopters and adopters on each side, over time. Mathematically, this means solving the differential equations introduced in the final model. Doing this enables us to study the effect of the parameters of the system on the indicators of the market's success/failure that only can be analyzed by having a dynamic understanding of the model. In the next section, through numerical simulation of the final coupled diffusion model, I investigate the establishment of adopters in the market (i.e. the final percentage of the actors remaining in the market in the long term) as an indicator of market success or failure.

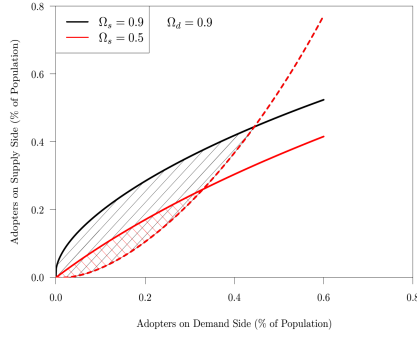


Figure 22 - Lower contact number on supply side

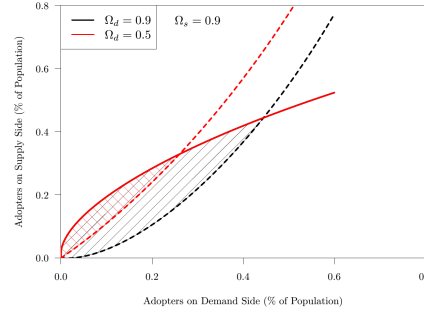


Figure 23 - Lower contact number on demand side

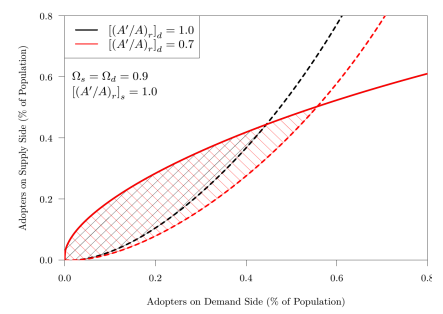


Figure 24 - Lower reference ratio on demand side

5.8.3 Dynamic analysis of long-term establishment in the market

Establishment percentages as a result of one side's parameters

The two-sided tipping boundary introduced in the previous section provides a snapshot of the system as an initial condition under which both sides experience growth. However, this initial simultaneous growth does not guarantee a successful final outcome (i.e. an acceptable percentage of both populations that retain market arrangements in the long term). To understand this better, we need to study the final number of established adopters influenced by the trial adoption driver (controlled by the contact number) and the establishment/rejection driver (controlled by the reference ratio). Coupled diffusion is modelled in so as to capture two stages for market emergence in the supply and demand populations. First is the trial adoption of market arrangements that includes diffusion in the population of potential adopters for the first time. Second is the establishment of trial adopters with the new market arrangement. These two are influenced by diffusion strength and joint market utility, respectively. Therefore, these two parameters—contact number and reference ratio—can represent intervention points or policy

levers that can change the market's trajectory. Policies that impact the *contact number* parameter represent policies that target the rate of adoption through increasing the effectiveness of social influence. Policies that impact the *reference ratio* parameter enhance the appeal of adoption and, therefore, the likelihood that trial adopters will remain adopters. We call these two sets of intervention points respectively "trial policies" and "establishment policies".²⁵

Since the model is symmetrical for both sides, the effects of the contact number and the reference ratio of one side (e.g. supply) on the percentage of established adopters on both sides can be studied. Figure 25 and Figure 26 illustrate the percentage of adopters that get established on each side given different values for the contact number and the reference ratio of the supply side. In other words, if we change only the supply side's diffusion and establishment parameters, we can find the percentage of these two populations that get established given enough time.

According to Figure 25, increasing the supply contact number increases the final established percentage as a result of a powerful growth driver. However, after a certain point, increasing the supply contact number surprisingly decreases the final number of established adopters. In other words, encouraging more adoption for a trial period leads to a lower percentage of established suppliers. This results from the interdependency between the two sides. For trial adopters to become established, perceived utility needs to be high, meaning that a sufficient number of demand adopters need to participate in the new arrangements. If the supply side's trial adoption is increased beyond a certain point, trial adopters grow much faster than the time needed for the

²⁵ I have used the term 'policy' to imply a broad category of interventions that a third party can use to change a specific part of the system, either temporal engagement or long-term establishment. This does not mean that the intervention needs to be a formal policy developed by public sector actors. Any program or intervention operated by actors from the social or public sectors changing either trial or establishment dynamics is included in these two categories.

demand side to keep up. Therefore, although a larger percentage try the new arrangements, a smaller percentage is ultimately established as a result of an under-developed demand side. In the same figure, it can be seen that a stronger growth driver on the supply side yields a higher percentage of establishment on the demand side. This is due to an increase in present adopters, either trial or established, on the supply side, making market utility higher for consumers.

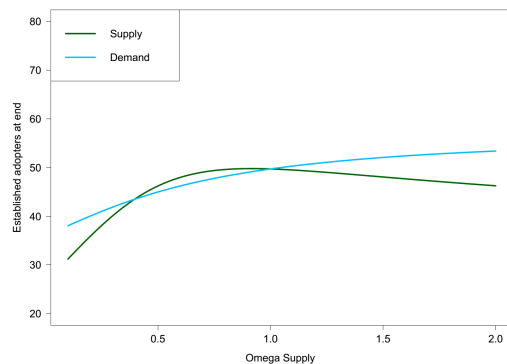


Figure 25- Supply contact number and establishment percentage

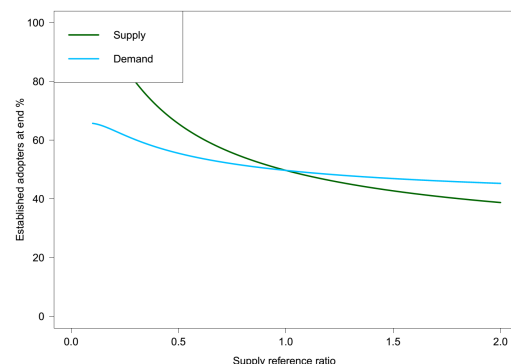


Figure 26- Reference ratio and establishment percentage

Figure 26, similarly illustrates the establishment percentage as a result of the supply side's reference ratio, which indicates the decision point criteria for establishment or rejection after the trial period. This reference ratio represents a threshold in a given population above which utility is perceived to be positive. Therefore, an increase in this threshold creates higher expectations and makes trial adopters more skeptical about the market's benefits. This results in a lower probability for trial adopters to become established. The demand side's established adopters also decrease as an indirect effect of the supply side. With the suppliers having a higher threshold for retaining the market, a lower number of suppliers become established and the market is less favorable for consumers, for they see a smaller number of suppliers present in the market.

Establishment percentages as a result of both sides' parameters

The two analyses above are based on modifying the trial adoption or establishment drivers, which are controlled by the contact number and the reference ratio respectively, only on a single side. In order to explore market emergence behavior as a whole, the joint effect of these drivers on both sides should be studied. There exist four controlling knobs—contact numbers and reference ratios on both sides—that determine the trial and establishment dynamics. Simultaneous alteration of these variables determines if these drivers have reinforcing or balancing effects on each other. With this aim, each of these parameters (contact numbers and reference ratios) are changed simultaneously on both sides. For the compound effect of the contact numbers, the final percentages of the established adopters are presented as contour plots in Figure 27 and 14. These two plots present the final state of the market in terms of the percentages of established adopters given any two combinations of contact numbers. This indicates the success or failure of market if there is a trial adoption driver controlled by any trial policies on either side.

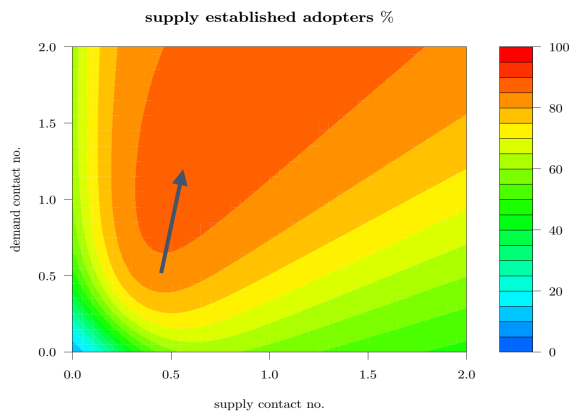


Figure 27- Contact number contour plot (supply established)

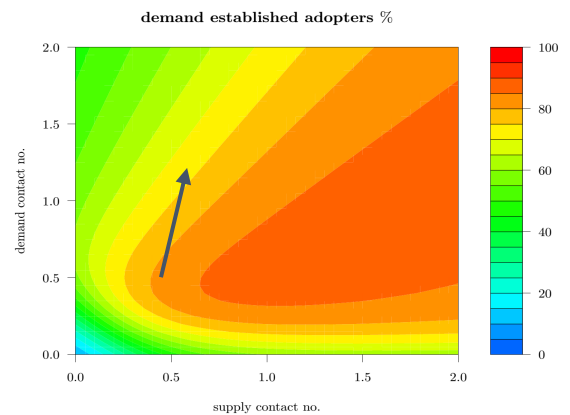


Figure 28-Contact number contour plot (demand established)

A first insight from these two graphs is the notion of tradeoff between a maximum reachable percentage of supply and demand established adopters. As can be seen from the two plots, maximum established adopters on both sides cannot be attained simultaneously. In other words, each specific favorable point on the supply side is not the most favorable point on the demand side. This results from the interdependency of these two sides. A higher percentage of established adopters on each side is favorable for the opposite side, although it is less favorable for the same side in terms of utility for establishment. In the Good Food Market example, a higher number of communities of customers make the market more promising for farmers but less promising for themselves because of potential limited resources; an increase in the number of communities may decrease the quality of service or influence prices, among other considerations. This is why the most favorable situation to gain the largest number of established adopters across both the supply and demand sides is not when both contact numbers are the highest, even though having the highest contact number values causes a higher maximum number of trial adopters.

The second insight from these figures is the importance of considering both sides when designing policies for intervening in a market. There are numerous combinations of multi-sided policies (e.g. changing the contact numbers of both sides to different degrees) for moving from an initial condition toward a favorable percentage of establishment. As can be seen in the contour plots, depending on the initial condition of the system, by moving in one direction the establishment percentage for the supply and demand sides may improve or worsen for both sides or either side. This is counterintuitive for the directions that apparently aim to increase establishment percentages for both sides. An example direction is shown as an arrow on both figures. Along the direction of the arrow, a policy is designed to increase the establishment percentage on the supply side by introducing a positive policy that enhances contact numbers to a degree on both the supply and demand sides. This is a common real-world policy that encourages both supply and demand actors to try new market arrangements in pushing for stronger diffusion in both communities. An example is interventions on both sides to invite more customers and farmers to a new market. However, surprisingly, inviting more on both sides to the market, while it may favor one side may also worsen the other side's establishment percentage (see the arrow showing the impact of the same policy on demand-side establishment in Figure 28). This finding can be translated into the following proposition about multi-sided interventions in such market arrangements:

Proposition 1: *Despite positive change through a policy for trial adoption on both sides, if designed as one-sided (for a supply establishment target), the policy may worsen the outcome for the opposite side (demand establishment).*

We can also draw established adopters' contour plots for different combinations of reference ratios on the two sides. Figure 29 and 16 illustrate these two contour plots for supply and demand establishment percentages, respectively. The most interesting insight from these two plots is that the establishment percentage on each side is independent of the other side's establishment driver (controlled by the reference ratio). This means that the threshold by which the supply side evaluates retaining the market arrangement is the major factor that determines supply-side establishment. The demand side's threshold has an indirect and very weak effect on establishment on the supply side.²⁶ This implies a significant decoupling in terms of the two reference ratios. From a policy perspective, for long-term establishment of actors on each side, direct behavioral and foundational interventions on each side are needed to encourage more trial adopters to establish. In other words, there is almost no tradeoffs between thresholds on two sides, as there is a collective perception on each side of a favorable state of the market. Therefore, to increase the establishment percentage on each side, we need to design separate target establishment policies for that side.

Proposition 2: *Policies that target establishment of trial adopters on the supply and demand sides operate almost independently from the other side and need to be designed specifically for each side.*

²⁶ In small numbers of the demand reference ratio, decreasing the supply reference ratio results in increasing the demand side's established adopters. This is the case of commodity markets in which customers have no or little preference for a certain new offering. As suppliers' threshold for entering the market decreases, they pull the demand side toward a higher percentage of long-term purchase. In a socially-oriented market, this scenario is not possible, as the supply side or the demand side does not have the capacity to remain in the market when the other side is not present because of resource constraints and local matching.

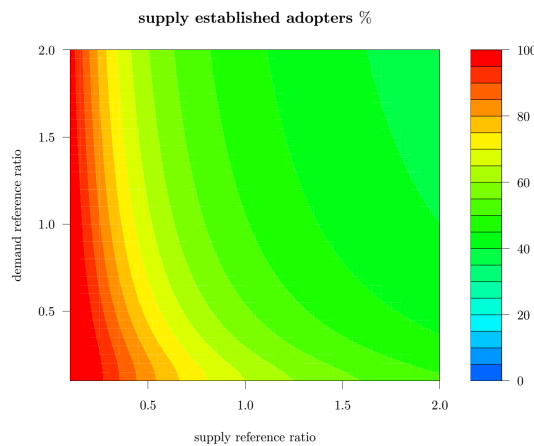


Figure 29- Reference ratio (utility thresholds) contour plot (supply established)

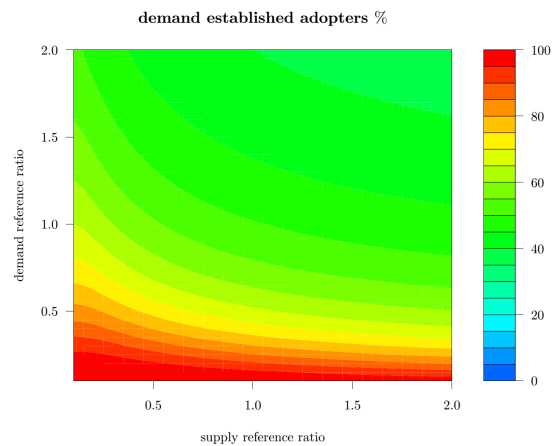


Figure 30- Reference ratio (utility thresholds) contour plot (demand established)

5.9 Strategic Actors' Roles in Coupled Market Arrangements

FoodShare's case and particularly the development of the Good Food Program's market model presented the idea of how strategic actors intervene in different parts of the system to initiate and sustain market initiatives. In the FoodShare case study presented in Chapter 4, a microsocial account of strategic actors' engagement with stakeholders on the supply and demand sides is given. On the other hand, the coupled-diffusion model in this chapter presents the market evolution trajectories at the macro level. Analyzing the model with an eye on the examples of a strategic actor's actions in a real-world case makes the analysis more understandable in terms of possible policies and system trajectories. To simplify the analysis, the model brackets many interesting issues, including how at the micro level communities of supply and demand become interested in the new arrangement, participate for a short period, or maintain a longer engagement with the market. The market and community mechanisms of FoodShare's case introduced in Chapter 4 elaborate these issues and bring agency into the story at the macro level.

From the coupled-diffusion model, two sets of interventions or policy levers²⁷ are possible on each side. Looking back the FoodShare case, we can identify different examples of these intervention levers across the supply and demand populations: local farmers and urban customers. The first category of interventions is those that bring more populations on each side to the new market arrangement. In this sense, they encourage a larger group to try the new market. This is represented as a change of contact number on each side in the coupled diffusion model. I refer to these levers as trial policies in this chapter. In the FoodShare case, an example of trial policies for urban customers was the distribution of vouchers for purchasing at Good Food Markets that temporarily could invite a larger population to test purchasing their produce from a nearby Good Food Market. Another example was providing discount incentives on Good Food Boxes in certain communities that occurred in partnership with local institutions. On the supply side, trial policies included all the forms of partnership building with local farmers and the active pursuit of producers to sell their produce to FoodShare's programs. This was also a way to encourage larger numbers of farmers and local producers to try working with FoodShare's program.

A second category of levers comprises interventions that facilitate long-term establishment of actors on each side with the new arrangement. These policies are represented as a change of reference ratio or utility threshold in the model. I defined these as establishment policies above. These interventions are more foundational and focus on modifying the overall utility of the market for each side through necessary behavioural changes and infrastructure build-up (B. Lee

²⁷ Intervention and policy levers are used at the same capacity here because, depending on the type of strategic actor implementing them—social or public sector—they may be called either one.

et al., 2018). Establishment policies on the demand side were the ones working on behavioural changes, such as consumption and purchasing behaviours in low-income neighbourhoods. In the FoodShare case, examples include educational programs such as cooking workshops, healthy food awareness campaigns, or youth skill-building internships. These interventions mostly targeted long-term behaviours of customers by changing the utility threshold so that they would continue purchasing produce through the Good Food Program's outlets (Box, Mobile, Market, etc.). All FoodShare's and other similar actors' attempts to create infrastructures to connect local farmers to urban low-income communities or programs by empowering local farmers with different farming, packaging, and sales capabilities are examples of establishment policies on the supply side. Comparing these policies is possible using the proposed model and the parameters indicating these two types of policies: trial and establishment. Table 12 summarizes these two groups of levers and examples of them in the Good Food Market model.

Table 12- Policy levers by strategic actors

Policies/ Interven tions	Definition	Supply-side example (FoodShare)	Demand-side example (FoodShare)	Representation in the model
Trial policies	Interventions to bring more populations of each side to the arrangement; encouraging a larger group to try the new model for a trial period	Annual partnership or contractual agreements with farmers	Short-term financial incentives (e.g. distribution of vouchers or coupons, seasonal discounts in targeted neighbourhoods)	Contact number (Ω_s, Ω_d)
Establish ment policies	Interventions that facilitate long-term establishment of actors on each side with the new arrangement, represented as change in the model	Capability building and infrastructure building for local community markets	Educational and skill-building programs for long-term behavioural change	Reference ratio or utility threshold $(u_{th})_s, (u_{th})_d$

Given the range of interventions that exist across a two-sided market arrangement, one key question about the role of strategic actors is the right combination of these policies that could lead a nascent market in a favourable direction. In order to compare the impact of these policy levers and their compound effects on each other, we can combine changing these four levers and measure the market success. Having a complete picture of the market, we can analyze the right combination of policy levers and their magnitudes that intervening actors could adopt for a favourable outcome. It should be noted that these interventions differ in terms of necessary social and financial capital to be designed and implemented. At the population level, the collectivity of social and public sector actors having different programs intervene in different parts of the markets across the supply and demand sides. For this reason, the analysis provided here is critical to emphasize the effectiveness of different policies in each system and, more importantly, point out the counterintuitive unfavourable outcomes at the system level that may arise from short-sighted interventions.

Figure 31 illustrates established percentages of supply and demand adopters in different combinations of parameters controlling trial and establishment policies on each side. Three panels are presented for each side for three levels of supply utility thresholds (i.e. how difficult it is for supply-side actors to become established). Percentages of established adopters with the new arrangement on the supply and demand sides are considered as success indicators and are also shown through the heat map warmer colours as higher establishment. Each panel consists of a set of surfaces on which the two axes are the trial and establishment parameters of the demand side (contact number and utility threshold). Recall that a change in contact number represents the range of trial policies, and a change of utility threshold indicates establishment

policies. Therefore, comparing the panels on the left with those on the right demonstrates the impact of demand-side policies on establishment percentages on the same side and on the opposite side, respectively. This is important in cases in which interventions on the supply side are more capital intensive, and analysis shows to what extent using either trial or establishment policies of the demand side can advance both sides to higher percentages of establishment. Also, comparing panels across high (A-B), medium (C-D), and low (E-F) supply thresholds illustrates how trial and establishment policies need to be combined to yield a favourable outcome.

One of the insights from panels A-B is that with a high supply utility threshold, demand policies, while effective on the demand side, are inefficient on the supply side for establishment, as can be seen from the flat surfaces on panel B. Interestingly, in this condition, even trial establishment policies on the supply side are not beneficial and do not impact establishment. This implies that in cases in which the threshold for establishment on one side is high, no other policy than changing the utility of the market for this side is effective to lead the market in a favourable direction. With a slight change in the utility threshold of the supply side, demand-side policies start to positively influence supply establishment. For example, in panels D and F trial policies on the demand side push the supply side toward higher establishment. In other words, the establishment utility threshold may act as a bottleneck for the whole market blocking the impact of all policies on both sides. In our Good Food Market example, in the absence of appropriate infrastructures and changes in favour of new arrangements on the farmers' side, regardless of the size of the group on either side or the policies bringing more to both sides, the market was not sustainable. This is critical for understanding the sequence and dependence of policies on each other. If establishment is difficult on one side, core attempts should focus on

lowering this threshold to pave the way for other trial or establishment policies on the demand side.

Putting these insights together with what a strategic actor can do, we can identify the effectiveness and magnitude of the impact each intervention may have. From both qualitative study and the model presented here; strategic actors are critical in transforming market emergence dynamics from two perspectives. First, while having a deep knowledge of subjects and their expectations, they bring synergy to the application of intervention levers between the supply and demand sides. For instance, it was discussed how in developing its Good Food Program's market model, FoodShare was constantly building supply and demand communities. Through community and market lines of work at FoodShare for growing the market, a balance between the supply and demand sides was pursued. Comparing panels A-B with C-D also illustrates how one-sided policies, for demand in this case, are inefficient in the absence of policies that guarantee a minimum establishment on the opposite side, here the supply side. Second, as shown in the analyses of this section, strategic actors play a critical role in making policies of trial and establishment on each side work in tandem with each other. Translating this understanding to FoodShare's market model implies that merely focusing on inviting more actors from supply and demand to the platform without establishing market infrastructures and necessary behavioural changes will not result in long-term sustainability of markets. As has been shown, high interdependency of the sides makes the market trajectory highly path dependent and fragile, thus calling for a system-level understanding of interventions for gradual development.

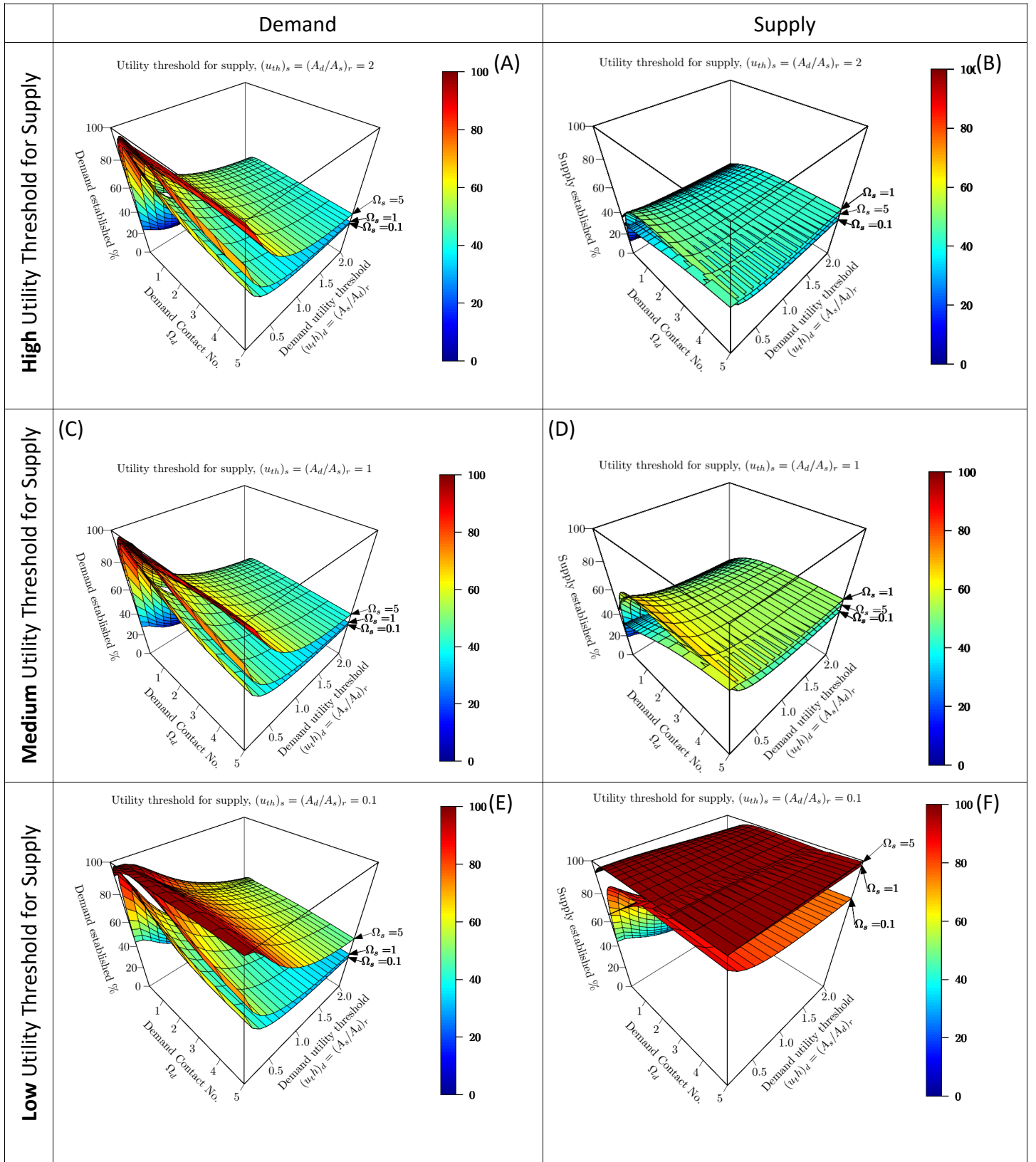


Figure 31 - Combined effect of trial and establishment policy levers by intervening strategic actors

Chapter 6 Summary of Findings, Discussion, & Conclusions

6.1 Chapter Summary

This chapter brings together the findings and discussion around the transformative role that actors with brokering orientation from the social or public sector can have to induce change and create socially-oriented markets. The chapter begins by summarizing the findings in relation to the two research questions introduced in Chapter 1. First, an overview of the findings in response to the role of brokerage in systemic social impact for addressing contemporary societal challenges is presented. This overview is built on the empirical findings presented in Chapter 4 using the case of FoodShare and food system transformation. Second, findings in response to the dynamics involved in the emergence of socially-oriented markets that were developed in Chapter 5 are summarized. In the first two subsections of the current chapter, following a recounting of each research question and the underlying motivations, I summarize the major findings. For the first line of inquiry three major findings were evident from the FoodShare case study: 1) decentralized brokerage for systemic impact; 2) the joint effort of public and social actors; and 3) the dynamic evolution of intermediation for market creation. For the second question, two findings are summarized: 1) two-sided tipping behaviour; and 2) trade-offs in establishment of communities of supply and demand in a socially-oriented market. In the following section, I lay

out how these findings enrich our theoretical understanding and the existing literatures on 1) brokerage, 2) transformative innovation policy, and 3) creation of markets with social impacts.

In addition, I elaborate on the limitations and boundaries of the research presented in this dissertation. I close the chapter by presenting future research directions and discussing the implications for policy and practice. I discuss how findings contribute to food system transformation and reaching a just food system. At the end, I shed light on how the findings can enhance policy makers' capacity to address concerns captured in the 17 sustainable development goals set out in the United Nations Agenda 2030 (United Nations, 2015).

6.2 Summary of Findings for 1st Question: Brokerage and Systemic Impact

This research is inspired by the prominent role that brokering plays in organizing interactions at the individual and organizational levels to induce change. Existing research accounts for how brokerage fosters innovation (Lingo & O'Mahony, 2010; Obstfeld, 2005) and contributes to the greater public good (Collins-Dogrul, 2012). However, our knowledge is limited when it comes to mechanisms connecting brokerage to systemic impact in the case of societal challenges such as food security or income inequity. For this reason, the first research question of this thesis asks: *How do strategic bridging organizations transform existing socioeconomic arrangements for systemic social impact?*

Prior to the data analysis, my initial assumption was that brokerage impact at the broader level occurs merely through combining transfer of resources or connection building across stakeholders. However, the inductive analysis of my data reveals a more nuanced understanding of the mechanisms by which an actor with a brokering orientation induces impact at the system

level. The inductive model presented in Chapter 4 suggests that in stimulating systemic impact, a combination of brokering, creation of new cross-sectoral interactions, and mobilization efforts are at work while new forms of organizing in the market and community domains evolve in a dynamic process.

In the next three subsections, I summarize three major findings of this thesis. First, the FoodShare case suggests an extended form of brokerage as a potential pathway for creating systemic impact. I propose a concept called *decentralized brokerage* to refer to this form of brokerage at the interorganizational level. Second, the case captures the progression of the interwoven endeavors by actors from the social and public sectors, mediated by the brokerage organization's work. The finding underscores how actors from social and public sectors may go beyond their traditional mandates to engage collaboratively and evolve problem-solving paradigms and solution alternatives in a joint effort. Third, the temporal story of FoodShare's market model and its progression illustrates how a focal organization's intermediation role evolves while creating new market arrangements and utilizing them to realize systemic social impact. This finding highlights the critical role that intervening actors play in creating and promoting new market arrangements by progressively influencing different parts of the system.

6.2.1 Decentralized Brokerage for Systemic Impact

This finding offers a treatment of brokerage which is in line with recent scholarly works that focus on brokerage in action towards innovation or, in Obstfeld's words, "getting new things done" (2017). I take this view of brokerage in action to the field level and impact creation in the context of societal challenges. In this sense, by exploring the mechanisms for systemic impact, I

propose a new concept called “decentralized brokerage” as a strategy to introduce change through brokerage mechanisms. Here, I first describe the defining features of this concept and then discuss how this form of brokerage can contribute to generating systemic social impact.

I define decentralized brokerage as a process of initiating and orchestrating a series of brokering actions within and across networks of actors and resources to nurture simultaneous innovative forms of connection and interaction for different outcomes toward a unified objective. As was shown in Chapter 4, a brokerage organization may use diverse brokering actions in relation to different groups of stakeholders to achieve different outcomes across the network. Deploying different brokering activities echoes the possibility of the coexistence of brokering behaviors in different parts of a network (Quintane & Carnabuci, 2016). More important than this coexistence, however, is the fact that brokering activities occur in different places across the network. Two defining features of decentralized brokerage are a) existence of a network of actors as alters and brokering that occurs across and within these alter groups and b) an orchestrated series of brokering actions across the network with different outcomes.

First, in decentralized brokerage, instead of alters we have groups of alters encompassing a **network of actors** that belong to different domains (e.g. market or community) or sectors; and brokerage occurs **within** and **across** these groups of alters. Second, the act of brokering is dispersed across the network, meaning that brokering actions that pursue **different outcomes** in different places across the network exist. These diverse outcomes are situated, contextualized solutions across the network that are all unified under a new socioeconomic arrangement. The decentralized concept implies that a brokerage organization by virtue of its programs and actions can introduce a collection of brokering behaviors within and across different groups of

stakeholders in the attempt to accomplish different outcomes orchestrated by the organization's unified mission. A conventional brokerage schematic is illustrated in Figure 32 and shows a broker with multiple alters in relation to a focal broker. A schematic of decentralized brokerage is shown in Figure 33, which illustrates three networks of actors as alters in relation to a broker.²⁸ Table 13 summarizes the defining features of decentralized brokerage in comparison to the conventional understanding of brokerage.

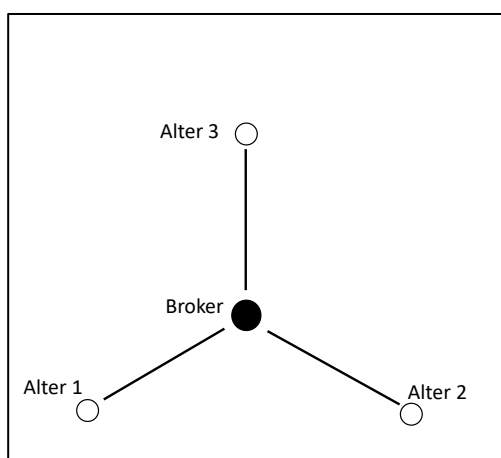


Figure 32- Conventional brokerage

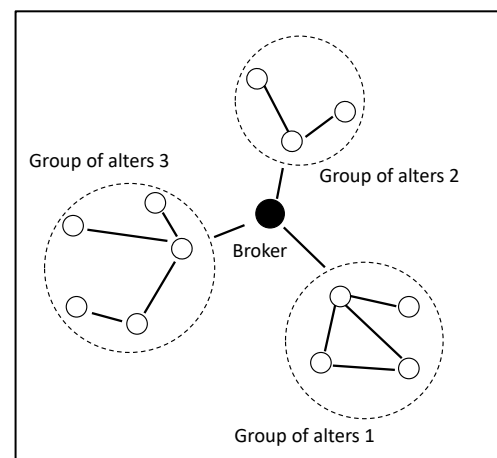


Figure 33 - Decentralized brokerage²⁹

In the FoodShare case, three particular realms—community, market, and public—were identified around which brokerage actions are utilized in relation to the actors in each domain. The community realm consisted mostly of social actors that were involved in implementing and

²⁸ It should be noted that these schematics only convey the notion of decentralized brokerage and should not be confused with a structural perspective on brokerage in open or closed triads. To elaborate the notion of decentralized brokerage, alters and a broker and their relations are demonstrated as nodes and ties. However, the focus here is not the structural positions of the broker or alters in relation to each other but the collection of brokering behaviors that occur within or across groups of alters. Also, as decentralized brokerage is built on the processual perspective of brokerage, as suggested by Obstfeld (2017), here brokerage can happen in both closed or open triads, i.e. alters may or may not have a previous connection with each other.

²⁹ Note that in each of these groups of alters, one or a few actors may also play a brokering role. However, in defining decentralized brokerage, the main attention is given to the focal actor's brokering action that is dispersed across and within these groups.

assisting with community-level activities such as community organizations, informal local groups, larger regional non-profits, agencies and institutions with community activities (e.g. schools). The market realm included actors that were involved in market-related activities and included farmers, producers, household customers, and institutional buyers. The public realm included all municipal and other local government departments and working groups related to food issues in some way.

The FoodShare case illustrates the first feature of decentralized brokerage by the presence of a network of actors as alters in each of the public, community, and market realms. Through market and community brokerage and interweaving with public and philanthropic actors, brokering activities occur *within each group of alters* (e.g. connecting community organizations) as well as *across groups* of alters (e.g. channeling philanthropic support to sustain the market model or extending reciprocal interactions between public and community actors). In the case of FoodShare, brokerage was decentralized across the network, meaning that brokering activities were used serially in different places with outcomes of their own. As an example, it was shown that FoodShare orchestrated a series of connection building actions among city departments to allocate certain public spaces for community markets, while doing the same in the target community to connect leaders and volunteers with anchor community organizations and each other to initiate a community market. At the same time, it connected local urban farmers and community farms to these markets to sell their produce in the newly launched community market. As can be seen, this line of brokering while decentralized across the network aimed at a specific outcome: the initiation of a new community market in a neighborhood. In the FoodShare

case, numerous series of brokering of this kind with different outcomes were at work while being orchestrated under the organization's overall mission.

Table 13- Defining features of "Decentralized brokerage"

<i>Decentralized brokerage</i>	<i>Conventional brokerage</i>
1) Alters are networks of actors and brokerage that occur within and across these alter groups.	Alters usually belong to the same network ³⁰ .
2) A series of brokering actions in multiple places takes place across the network for different outcomes.	Brokerage is toward a final single outcome .

It also emerged from my data analysis that decentralized brokerage can be one of the pathways for creating systemic impact. I define systemic impact as innovative socioeconomic arrangements whose creation and operation resemble a “living demonstration” of what a favorable future state of a system might look like and how it would operate (Field, 2006). The decentralized form of brokerage is suitable for creating such an impact for two reasons. First, decentralized brokerage organizes an interconnected set of arrangements and interactions in the public, market, and social spheres that collectively contribute to transforming the existing system. There are diverse sets of actors and resources scattered across a network, while existing forms of interactions (or lack thereof) are supporting the status quo. The interconnected series of brokering actions toward different outcomes in a decentralized form stimulate new forms of interactions across the network, allowing broader impact to be achieved. This is crucial, for

³⁰ It should be noted that there are brokering studies in which brokered parties belong to different sectors such as the ones on the role of brokering in public-private partnerships. However, in such examples the focus is usually on a single outcome (e.g. partnership) for which brokering activities occur between these alters. Decentralized concept here focuses on the idea that brokering activities within and across these alter groups can aim for different outcomes all orchestrated for a unified objective.

example, in the case of a societal problem such as food security in which actors and interactions are locked into existing arrangements because of market or system failures. Therefore, an orchestrated set of brokering actions in different parts of the network enhances the possibility of reaching outcomes that all feed into the transformation of the existing system.

Second, decentralized brokerage may encourage replication of brokering behaviours by other actors and enhance the possibility of impacts beyond the local network. As in the case of FoodShare, in each alter group one or a few actors may themselves act as brokers. Therefore, decentralized brokering activities of the focal broker can be reinforced by the activities of these brokering bodies, leading to benefits beyond any one actor's immediate network. For instance, in the case of food security in Toronto, many other public or social organizations, such as the Toronto Food Policy Council, also used brokering strategies to mobilize actions and connections. In case of FoodShare, markets operated by third-parties, such as community agencies or other institutions (e.g. schools, universities, or churches), introduced a complementary mechanism, namely, platform brokerage, for systemic impact by creating a replicative model beyond the focal organization's reach. The market model placed these institutions in a favourable position to replicate many of the connection-building behaviours of FoodShare in their local communities.

Another complementary outcome in decentralized brokerage as observed in the FoodShare case is the active search for and introduction of "new actors" to the network of alters. They include actors that are far from a group of stakeholders (e.g. isolated local farmers, in the case of market brokerage) as well as actors that are not traditionally involved in certain arrangements (e.g. schools as consumers of bulk produce, in case of market brokerage). This implies that apart from working on interactions— "ties" in network studies' terminology—FoodShare introduced

potential actors to get involved in new arrangements— novel “nodes” in network studies’ terminology. This aspect extends the notion of brokerage from merely intervening in interactions to mobilizing actors that are not in the network. In this sense, it relaxes the implicit assumption that before the act of brokerage, in any form, the broker is somehow acquainted or connected with either or both alters. Therefore, connecting with alters becomes an important part of the brokerage process, as arrangements and interactions are totally new to alters or not feasible without the presence of the focal broker.

In sum, decentralized brokerage provides a new perspective on conceptualizing brokering with a set of nuanced assumptions about brokers, alters, and the brokering process. Decentralized brokerage comprises four major aspects: 1) brokering actions are distributed across the network of actors, meaning that brokering activities with different goals and players coexist under a unified objective; 2) a brokering organization engages with a network of alters from different sectors in which different brokering activities occur within and across these networks of alters. Meanwhile, when attributing systemic impact to decentralized brokerage, it was explained that 3) a brokering actor with transformative goals actively engages new actors, adding prospective alters to the existing network; and 4) this brokerage body is able to induce systemic impact by innovating, organizing, and sustaining new forms of interaction and socioeconomic arrangements among alters.

6.2.2 Joint effort of social and public sectors

The second finding indicates public and social actors’ joint actions and their interwoven endeavors to resolve food system problems over time. A part of the emergent model presented

in Chapter 4 highlights the close interaction between municipal government and community actors and how FoodShare's brokering contributed to this synergistic effort. As emerged from the analysis, the two mechanisms introduced as "co-creation of problem-solving and solution domains" and "co-creation of local community solutions" reflect FoodShare's engagement with public and community actors, respectively. These two "co-creation" processes capture the involvement of actors from each sector accompanying representatives from the other. This means that local government, philanthropists, experts, and civil society representatives, such as FoodShare, were involved in creating the problem-solving domains on the public sector side. At the same time, local community organizations, larger non-profits, and brokering bodies from the social or public sector (e.g. FoodShare or the Toronto Food Policy Council) were contributing to the creation of situated solutions in each community. Therefore, as the second finding, the FoodShare case suggests that the joint efforts of public and social actors in an interwoven manner contribute to the evolution of understanding the problem while customizing solutions for local contexts. It is also suggested that in this process, catalyst bodies on both the public and community sides are highly critical in providing the medium for the reciprocal interaction between these actors. FoodShare is an example of such a catalyst from the community side.

The case narrative illustrates how government and non-profit bodies got involved in an interactive evolutionary process through the presence of the brokering actors to simultaneously co-create problem perspectives. This process helped in the creation of a collective understanding of what the core issues were and what solution alternatives could be designed. This was in close interaction with on-the-ground action while situating the solutions into each neighbourhood and taking into account the community's needs. Highly customized forms of markets across the city

provide one example of contextualizing solutions as a result of interactive experimentation at the local level. Non-profits became active participants in developing solutions because of their deep understanding of each setting while government was seeking out community actors for alternative solution models.

The government-non-profit relationship as depicted in the case demonstrates a dynamic and interwoven evolution of the relationship between the two actors in generating social benefits. This is a different perspective from many of the models that conceptualize NGO-government relations (Selsky & Parker, 2005; Smith & Grønbjerg, 2006; Young, 2000). Generally, public and social actors are seen as service providers of both public goods and social welfare. While public actors are known to engage with a problem mostly through policy standpoint and public services, social actors are regarded as compensating for market and government failures. A variety of typologies have been developed to highlight multiple complex ways in which NGOs and the government can engage with each other (Najam, 2000; Ramanath & Ebrahim, 2010; Young, 2000). According to Young (2000), government and non-profits can have complementary, supplementary, or adversarial relations with each other. In the complementary model, non-profits are seen as partners with government that assist in delivery services through initiatives that are mostly funded and run by the government. In the supplementary model, non-profits are supposed to fulfil the unsatisfied demand for public goods that is not met by the government. In the adversarial relation, non-profits hold the government accountable for citizens' needs and advocate for better public policies and services. Other perspectives tend to place emphasis on non-profits as products of citizens' demands and cooperative social networks (Waltzer, 1995).

What is outlined in the FoodShare case in regard to public and social actors enriches these perspectives by highlighting the interdependent and reciprocal interaction between the two.

First, multiple public and social actors go beyond their traditional mandates. For instance, FoodShare's launch at the heart of the City and its close reciprocal interaction with City departments over the years pinpoint a non-profit that was born and supported out of the public sector at the beginning while advocating and representing community organizations over the years. Another example is catalyst structures in the form of policy councils, consultative initiatives, or joint pilot projects that created a medium for community involvement in FoodShare and that highlight the constant attempt by public sector in seeking out the community for designing solutions. These examples reinforce the idea of mutual dependence and synergies between government and non-profits (Smith & Grønbjerg, 2006) and that local governments are critical in fostering the social capital (Putnam & Feldstein, 2009) and eliciting non-profit and advocacy responses to social problems (James, 1987).

Second, FoodShare as a brokering organization extending reciprocal interaction between public and social actors while developing its market and community programs reflects a process favouring complementarity and synergy across the sectors for development (Evans & Ostrom, 1997; Woolcock & Narayan, 2000). Social and public actors have much to bring to the table for addressing societal challenges. While government can offer financial and non-financial resources, propose a desirable future state, and have power over policies, social actors can bring on-the-ground information, real-world experience, and creativity in dealing with problems. However, in most instances there is not enough knowledge, capacity, or structure on either side to support potential collaborative outcomes (Koc et al., 2008). In this sense, a brokering body as elaborated

here is crucial in forming understanding of problems and development of solutions on the public and community sides. The repertoire of interventions advanced at FoodShare were a medium through which a form of joint problem articulation and problem solving occurred within the public and community.

On the community side, community projects, pilot partnerships for community or market initiatives, and customized market arrangements in each neighbourhood are some examples in which local community solutions were co-created by FoodShare and community organizations. Through cycles of experimentation and implementation, customized forms of solutions were created to meet the demands and preferences of each community. Customized models of markets in each neighbourhood (e.g. mobile, weekly markets within public housings, year-around farmers' markets) are an example of such locally situated local solutions. This resembles distributed experimentation as suggested for robust action for big challenges (Ferraro et al., 2015). In this scenario at FoodShare, the community actors were not merely the receivers of social services—initiatives or programs—but were active players in designing, customizing, and implementing those solutions.

In sum, in regard to creating systemic impact, the model proposed in Chapter 4 by no means suggests that a transformative pathway is only achievable through the activities of a single brokering organization. However, a collectivity of organizational actors from the public and community sides are needed to collaborate on initiation and sustenance of projects. The joint and reciprocal effort between the City's departments and formal or informal community organizations, as seen in the case, highlights that organizations are embedded within a network

of social relations; and, for a transformation to arise, it is important to find pathways that enable “co-creation” of solutions in a dynamic and collaborative manner.

6.2.3 Dynamic evolution of intermediation for socially-oriented market creation

The third finding elucidates the dynamic and evolving role of the brokering actor in influencing supply and demand actors in developing a new market arrangement. As depicted in Chapter 4, FoodShare’s approach in intervening to remedy the imbalance and injustice in the local food system evolved over time. The advancement of these models—charity coordination, market creation, and markets as platforms—made it possible for the organization to gradually engage different stakeholders on the supply and demand sides to create and scale its innovative market arrangement. In other words, this finding conveys that creating new market arrangements through brokerage follows a dynamic pattern of growth in the intermediation model by balancing the attempts on different parts of the system. This understanding is in line with more holistic perspectives on market development that view markets as complex systems of social actors that need simultaneous interventions across all participants (e.g. McKague, Zietsma, & Oliver, 2015).

In order to induce change through creating markets, FoodShare’s model progressively engaged actors from different groups of stakeholders while introducing new forms of arrangements between them. FoodShare was founded as a coordinator between donations and emergency food service providers. In its early years, through passive transfer of valued resources, the organization acted as a channel between supply and demand for donations. In this way, it played a transfer role without intervening in the existing charity arrangements, that is, donations

from industrial or philanthropic donors to food banks were coordinated by FoodShare and distributed to target communities. However, through the launch of its Good Food Program with a market-based model, the organization's role in market brokerage advanced to cover building connections and the transformation of supply and demand actors, including farmers, producers, urban customers, institutional buyers, and other social or public actors, to introduce and grow the new market model. Later, by positioning community marketplaces as a replicative platform operated by other institutions, FoodShare adopted a supporting role by stimulating other organizations to enact the same brokering in their communities. Thus, markets were a means by which the transformation work of the focal actor could have a cascading effect in local communities.

Three intermediation models evolved over time as the organization's way of influencing the system was changing. First, FoodShare started as a coordinator in the charity-based model of addressing food issues. Second, by the start of the market model its role evolved into an innovator and broker to bring market practices conventionally known to be in territory of economic actors into the social sector. At the beginning, FoodShare itself was the core actor in the intermediation model, running the Box, Bulk, and Mobile models. Third, in later years, new public and social actors became involved through the Good Food Markets. Therefore, many new actors traditionally not involved in market exchange participated in the model to fulfil a social mission. The Good Food Markets that were initiated and have been run by schools, hospitals, churches, and community agencies, among others, illustrate how engaging with a market extended from the world of industrial actors into other public and social participants.

This evolution of intermediation models in the system is important because it provides a systemic perspective on creating market arrangements for societal problems. In this lens, the collectivity of stakeholders beyond merely the consumers and producers got involved in an interactive and dynamic way as each of these models was advancing. The Good Food Program and its different market variations—Box, Bulk, Mobile, and community markets—provided a platform to bring actors from the social, private, and public sectors together to make the new market arrangement happen. The nature of this market arrangement is a socially-oriented one, as introduced in Chapter 5, in which the interdependency of stakeholders makes the presence of each actor necessary for other actors to join. As a result, FoodShare’s central role was creating synergy between different parts of the system by progressively inviting and sustaining stakeholders from the supply and demand sides. In addition to producers and customers, philanthropists and public and other social sector actors were added to the mix to facilitate the formation of market models. At the broad level, for the market model to work, a sufficient number of supply side actors (e.g. local smallholder farmers, producers in the industrial food hub, and larger farm associations) as well as a sufficient number of demand side actors, including customers, institutional buyers, and community organizations, needed to join the program. At the same time, while FoodShare was designing and operating the market infrastructure and logistics, philanthropic and public funding was organized to make the financial side of the market feasible, i.e. viable for smallholder farmers and affordable for urban underserved customers. For instance, with the introduction of mobile markets, buses were provided by city’s public transportation agency; they were retrofitted by financial and in-kind support from foundations; target communities were chosen in collaboration with the city’s public housing department and

other non-profits; and the logistics were organized by FoodShare. For all of these things to happen, a series of brokering activities was enacted by FoodShare in different parts of the market to gradually add new actors and interactions to the market model. Therefore, the evolution of FoodShare's roles was to ensure balanced growth of the market model as a platform that introduced new arrangements to an array of actors from the supply and demand sides.

In addition to generating synergy by introducing new actors to the market arrangements, role advancement was a close result of creating an "*innovative*" market arrangement. The significance of the brokering role in this process was not limited to creating or influencing connections or transferring resources. In fact, a great degree of creativity was involved in designing the arrangement and experimenting with pathways over time to make the arrangements sustainable. This aspect is not a conventional brokering role *per se* but a transformational role through an active search for innovative use of resources and actors to create new forms of connection that are not possible in the absence of an intervening actor. Capturing the brokerage actor as an innovator in forming novel forms of interactions is critical when it comes to societal problem solving. To address complex problems, as in the case of food security, managing collaboration and coordination among conventional actors is not sufficient. To transform the status quo, alternative models of interactions, e.g. the market model, need to be animated and sustained through engaging unconventional parties. Therefore, designing new arrangements and roles and engaging new actors in these arrangements are part of this transformative role. The focal actor is not merely mediating, creating, or enhancing interactions between parties but proposing and experimenting with possibilities for innovative forms of organizing existing and new actors.

6.3 Summary of Findings for 2nd Question: Dynamics of Socially-oriented Markets

In answering the first research question, the findings elaborate the role of the strategic actor in introducing an innovative market arrangement and diffusing this market model into different geographies and to stakeholders on both the supply and demand sides. However, a part of the question when designing such initiatives is the extent to which new market arrangements are adopted by relevant stakeholders and become sustainable. Particularly, the interdependency of stakeholders poses a substantial challenge to conditions controlling growth at the population level as well as agreement of the stakeholders with the new arrangement in the long run. Inspired by the use of market-based models in the context of social problem solving, the second question of this thesis asked: *How do socially-oriented markets emerge in the presence of interdependent communities of actors; and how can long-term establishment of such market initiatives in settings with high interdependency be achieved?*

In response, in Chapter 5, I developed a population process model to analytically formalize the emergence of what I introduce as socially-oriented markets. I discussed thoroughly the features of socially-oriented markets. A socially-oriented market places less emphasis on a market niche for new product categories, such as a green technology, which is similar to a commodity market that the innovation diffusion literature has studied extensively. On the contrary, a socially-oriented market captures market niches by bringing into connection two or more groups of stakeholders previously excluded from the existing market (Mair et al., 2012) by using an innovative form of arrangements between supply and demand actors. In the case of FoodShare, this new arrangement was introduced through the Good Food Program by connecting urban low-income consumers with small-scale farmers through the market model.

The mini-grid electricity market in India, as pioneered by the Rockefeller Foundation, and the Good Food Program of FoodShare are examples of such socially-oriented markets (Accenture Development Partnerships, 2015).

Distinctive features of such markets make them an interesting puzzle and simultaneously critical for transformation. First, market arrangements and practices in most cases are new and involve an innovative mode of interaction between stakeholders, particularly from the supply and demand sides. Second, the locality of the market arrangements results in high interdependency between stakeholders on the supply and demand sides, meaning that the adoption of market practices on each side is closely linked to the state of adoption on the other side. Third, the fragility and newness of the arrangement call for careful nursing by strategic actors in the early stages. In this context, the challenge does not lie in diffusion of a new product in a given population but the emergence of a market as a result of the interdependence of multiple sides. For this reason, I examined in Chapter 5 the emergence and sustainability of these kinds of market dynamics that arise under interdependency of stakeholders and require system-wide interventions by strategic actors nurturing these markets. In this section, I summarize the findings in regard to tipping behavior in such markets as well as the establishment of the actors with the new market arrangements and the role of strategic actors in the success of market dynamics.

6.3.1 Two-sided Tipping Behaviour

Analyzing the coupled diffusion model developed in Chapter 5 from an analytical and computational standpoint reveals two lines of findings. The first line captures the tipping

behaviour of the market in the presence of two interconnected populations of stakeholders. The second line responds to the question of long-term participation of the stakeholders with the market arrangements, i.e. the market becoming sustainable and the role of the actors intervening in this process. While the first line denotes the necessary conditions for instantaneous growth in the two populations defining the tipping condition in a socially-oriented market,³¹ the second finding highlights the complexities of moving from the trial mode of the market toward self-sustaining dynamic and alternative policy levered by strategic actors from the public or social sector.

With this aim, I developed a utility-based diffusion model in the two interconnected populations (i.e. supply and demand). By examining their tipping conditions, an analytical formulation of a two-sided tipping boundary was presented. From intersecting the two tipping boundaries on the sides, a leaf-shape area is found that represents the market growth area. This area is a joint necessary initial condition in which adoption mechanisms outpace depletion, meaning that the populations adopting new market arrangements on both sides experience growth. The leaf-shape area and its formulation characterize the short-term state of the market in terms of changes in the number of participants.

Socially-oriented markets in many cases are developed in resource-constrained settings on either or both sides. In the case of FoodShare's Good Food Market, low-income consumers and small-scale local farmers on the demand and supply sides are, respectively, examples of

³¹ By definition, a socially-oriented market with high interdependency is a type of two-sided market. However, in the case of socially-oriented markets, practices are local; local matching occurs; and initiatives are led by a third-party actor from the social or public sector rather than a platform owner. Many of the findings presented for this research question can be translated to two-sided markets and multi-sided technology platforms.

populations in such settings. Therefore, the practices of the new market arrangement are highly fragile, and the decisions of the actors in the early trial stages are critical for the future direction of the market. For this reason, this two-sided tipping boundary distinguishes conditions under which either or both populations may deplete, leading to early failure of the market. The two-sided tipping boundary illustrates a balance that is needed between the number of actors present on both sides and simultaneous instantaneous growth on both sides. This provides an interesting insight into cases in which the size of the adopters' population on one side is considerably larger than on the other side. This imbalance means that while one side will grow in the short run, the other will decay. In addition to formulating the two-sided tipping boundary, further study of this area shows that the shape, size, and symmetry of the boundary depend on the growth and depletion parameters on both sides.

6.3.2 Trade-offs in the Establishment of Communities of Supply and Demand

The second line of findings draws from computational analysis of the coupled diffusion model in order to examine the final success or failure of the market as a whole given the effect of the interdependencies that determine market utility. The two-sided tipping boundary provides only a snapshot of the immediate state of the two populations in terms of growth or depletion. While this analytical boundary determines whether both populations experience growth in the number of adopters in the short term, it does not answer the question of whether the market is sustainable in the long term. The full model developed in Chapter 5 conceptually considers two steps for market creation. The first step includes trial adoption, which is trying the new market arrangements for a temporary period. The second step entails establishment in the new market, meaning that given the market utility for both sides, the actors may decide to continue

participating or may drop out of the new market arrangement. These two stages distinguish two alternative policy levers, i.e. those that target growing the population of first-time adopters (introduced in Chapter 5 as trial policies) and those that target encouraging the existing adopters to become established within the market after a trial period (introduced as establishment policies). Therefore, the question of market emergence becomes the conditions that lead to a higher percentage of the two populations settling into the market after a trial period.

Using computational analysis of the interconnected sets of differential equations of the two sides, the percentage of established adopters is examined with respect to factors influencing the trial and establishment dynamics respectively. The resulting contour plots in Chapter 5 analyze the final market outcome, i.e. established population on both sides, as an indicator of market success. First, it is shown that there is always a trade-off between the maximum reachable established adopters on the two sides. This results from the high interdependency between these two populations that makes the establishment dynamic on one side favourable for the other side though less favourable for the same side due to competition and resource limitations.

Second, the other finding from numerical simulation of the market state with respect to the parameters controlling trial and establishment lies elsewhere. Examining the impact of the factor controlling trial illustrates a reverse U-shape between established adopters and the same-side trial dynamic. With small numbers of this factor, by stimulating more trial, the percentage of established adopters will increase, i.e. more of the population will try the new arrangement and continue in the long run. On the contrary, with large numbers of this trial factor, by increasing the factor, the number of established adopters decreases. In other words, having a larger population try the new arrangements leads to a smaller percentage of them becoming

established in the market practice at the end. This means that pushing either of these two populations too fast into the funnel of the new market simply inhibits that population from capturing enough benefits and makes the establishment decision as the build-up of joint market utility fall behind. This finding introduces an important insight in regard to the two dynamics controlling such market outcomes, i.e. the dynamics of adoption for a trial period vs. the dynamics of establishment. For such market initiatives to thrive and become sustainable over time, there has to be a balance between these two dynamics. Since the establishment is controlled by the utility of the market that is itself directly influenced by the interdependency between the sides, the final number of established actors depends on the state of the system on the other side. Here, the role of strategic actors, like FoodShare, that promote market arrangements on both the supply and demand sides becomes important. Trial adoptions in two interconnected populations need to be influenced in tandem so that market utility is built gradually for both sides, leading to a balanced percentage of market participants in the long run. Therefore, as suggested in the first proposition, the interventions by such strategic actors for trial adoption need to consider the state of the market on both the supply side and the demand side. As suggested, interventions if designed only with the goal of increased adoption on one side, lead to lower establishment of the other side due to lack of sufficient market infrastructures.

Third, regarding the role of strategic actors in developing new market arrangements, looking back to the FoodShare case, several examples of both trial and establishment policies or interventions can be observed that can be implemented by the collectivity of actors on different parts of the market. The former policy is more concerned with introducing the market arrangement and encouraging a larger group to join; the latter is more preoccupied with the

fundamental and target behavioural and infrastructural changes needed to persuade the sides to become established in the market after the trial period. The last analysis of Chapter 5 integrates the effects of four policy levers (trial and establishment on each side) to examine the combined effect of these policies on final market outcome. It was shown that these levers need to work in synergy, as sometimes a small advancement in establishment on one side can make other interventions effective. For this reason, only a holistic perspective on the market as an interrelated system of actors can lead to interventions that collectively make market emergence possible.

These findings highlight the fact that in the context of a social problem solving with resource scarcity and high interdependency between the two populations, the dynamics of adoption and establishment are evolutionary. This is because market utility for all participating actors is built up in a dynamic, progressive manner. In this sense, understanding the importance of the balance between trial and establishment policies is highly critical for the final market outcome. While trial policies are those that have short-term success indicators and tend to make a huge mass join, they fail to keep this mass in the market in the long term. For this reason, establishment policies that target final decisions of actors by creating an underlying infrastructure for such an arrangement and related behavioural changes on both sides need to operate at the same time. This is an important part of the transformative role that strategic actors may play in evoking change at systemic level.

6.4 How the Findings Contribute to the Existing Literature

In what follows, I present the contributions of the findings to three streams of the literature: brokerage and systemic impact; creation of markets with social impact; and transformative

innovation policy. Table 14 summarizes these contributions. It should be noted that the first two streams of literature are guiding literatures of this thesis and were reviewed in Chapter 2. In addition, emerging from the analysis, the findings around the joint efforts of public and community actors for innovative inclusive solutions contribute to current conversations about innovation policy and paradigms for transformative change. The third subsection in this part illuminates the contributions of findings to the emerging literature of transformative innovation policy.

6.4.1 Contributions to our understanding of brokerage and systemic impact

The findings contribute to our understanding of brokerage in relation to inducing change from two perspectives. First, by proposing a decentralized brokerage notion, a nuanced conceptualization of brokering is presented that articulates brokerage beyond mere acts of mediation and catalysis (Stovel & Shaw, 2012). Second, by introducing decentralized brokerage as a pathway to systemic impact, the finding extends our current knowledge about the role of brokerage in stimulating public benefit.

In spite of the presence of brokerage in many empirical settings, there is a great consensus in organizational and sociological research that brokerage is underdeveloped as a concept and that many of its underlying assumptions can be revisited (Collins-Dogrul, 2012; Stovel & Shaw, 2012). In a recent review of streams of literature examining third-party influence, Halevy and colleagues (2018) highlight some of the common themes in current conceptualizations of brokerage. These themes include a) emphasis on interpersonal processes in small groups (Gould & Fernandez, 1989); b) defining brokering as a social influence process; c) considering brokering

both as intermediation and modification; d) that brokers can be helpful or harmful in their impact; e) that brokers may work for their own or others' outcomes. As discussed in Chapter 2, each of these assumptions feeds a stream of literature and a set of conceptualizations for brokerage with different outcomes. Decentralized brokerage advances the brokerage concept by formulating an innovative form of brokerage at the interorganizational level with macro-level outcomes.

Contribution to the conceptualization of brokering

First, decentralized brokerage advances the brokerage concept by acknowledging the agency and dynamics that may arise from considering alters as a network of diverse actors in terms of size, sector, and type, whether individual or organizational. This is in line with the processual perspective on brokerage and examining “how brokers broker”³² (Lingo & O’Mahony, 2010; Obstfeld, 2017; Obstfeld et al., 2014; Quintane & Carnabuci, 2016). Formulating alters as a dynamic network of actors transforms them from “passive brokered actors” into agents that influence the brokering process. Even the processual definitions of brokering, such as “behavior by which an actor influences, manages, or facilitates interactions between other actors” (Obstfeld et al., 2014), devote higher attention to the “broker” actor. Current formulations fail to recognize that alters, or “other actors” in Obstfeld’s definition, are an important part of the brokering process. The multiplicity and variety of alter groups in decentralized brokerage result in a diversity of interactions *vis-à-vis* brokers at different points in time and place. Studies of

³² The idea of engaging new and not previously connected actors in market or community interactions even relaxes the assumption that broker and alter need to be connected prior to the act of brokerage. This implies that the structural position of the broker while it can provoke brokering behavior, is not a necessary condition for it.

creative industries suggest the adoption of different brokering roles in regard to different alters in the course of a project. For instance, producers in independent country music use both collaborative and competitive³³ strategies (bringing some alters together while keeping others apart) in working with songwriters, performers, musicians, and studios. However, formulating alters to constitute a network of actors from different sectors suggests that alter groups can have their own dynamics beyond the endeavours of the focal broker that may influence the brokering outcome.

Second, decentralized brokerage extends the possibility of co-occurrence of brokerage activities with multiple parties to intersectoral relations and group of actors in each domain (e.g. market, community, or public sector) and proposes that different brokering activities might be at work within or across these domains. In Chapter 4, I illustrated that for a community solution to be developed connection building and transfer of resources had to be done simultaneously within a community as well as between the community and municipal organizations. This resonates with what is discussed by Sgourev (2015) in explaining the catalysis role of an avant-garde dance company in modernizing art. He demonstrates that connections were established among the supply side of modern art as well as between the supply and demand sides for novel art productions. Coexistence of brokering activities across and within alter networks in decentralized brokerage result in different simultaneous outcomes from the interconnected brokering activities while being unified under one social collective objective. This extends the studies in which brokers work in relation to multiple alters but toward a single product or innovation (Lingo

³³ Known as *iungens* and *gaudens* strategies respectively.

& O'Mahony, 2010; Obstfeld, 2017). This contribution is important because decentralized brokerage through this multiplicity of outcomes across the network can facilitate the transformation needed for addressing complex societal problems.

Contribution to social benefit of brokerage

Third, market brokerage brings back the importance of brokerage with its classic role (resource transfer) and suggests that the mediation orientation of brokerage is as critical as connection building in creating value, particularly when markets are not well developed. The evolution of new market arrangements has been motivated by underdeveloped hierarchies and markets alongside poor information distribution across isolated actors (Stovel & Shaw, 2012). In the case of FoodShare, the problem of the accessibility and affordability of produce due to the inefficiency of industrial food chains created the need for transfer of produce in an efficient shortened chain. This exemplifies a context in which demand for brokerage with its classic role of facilitating flow of valued resources over gaps in social structure is high. It was shown that at the core of market brokerage, creating mediating logistics and infrastructures is highly critical. This mediating role was also critical in developing situated community solutions in which brokering mostly entailed channeling resources from public and philanthropic actors to community actors. While a handful of studies emphasize the cooperation-building role of broker organizations for creating communal benefit (Collins-Dogrul, 2012), market brokerage and resource channeling among sectors highlights the transfer role of brokering actors in creating new market arrangements.

According to the literature, social integration in the form of forming, controlling, and facilitating connections as well as mobilization of knowledge and ideas is the mechanism by which

broker actor contribute to collaborative outcomes. Examples from studies of brokerage in advancement of projects in knowledge intensive or creative fields (Collet, Robertson, & Lup, 2014), product development (Hargadon & Sutton, 1997), and intersectoral partnerships (Collins-Dogrul, 2012) support this perspective. The rationale behind the role of brokers in creative projects or innovative product development is that resources, ideas, and information are scattered across multiple actors. For a creative project or innovation to succeed, a broker needs to integrate these factors and induce different actors to collaborate and bring their resources to the project (Cardon et al., 2015). In this manner, brokerage role is mostly integrative and cooperation building in such contexts to facilitate interpersonal or interorganizational relationships. This is similar to what scholars of interorganizational partnerships attribute to brokerage, i.e. promoting cooperative relationships (Chaskin, 2001).

Fourth, my finding regarding the role of brokering organization in creative macro-level impact goes beyond the social integration idea recommended in the existing literature. What I presented in the FoodShare case study suggests that in addition to integrating different brokering behaviors, a brokering organization can act as an architect of social relations to form a new socioeconomic arrangement. In FoodShare, through decentralized brokerage across community, market, and public sector domains, cross-sectoral connections were formed for collaborative initiatives. This reinforces the idea that brokerage through its integrative role can contribute to the creation of public goods. But the most remarkable aspect of this finding lies elsewhere. New socioeconomic arrangements led by the brokering organization can forge new models of interaction between segments of the social structure that did not previously exist. For societal problems rooted in the underdevelopment of markets and socioeconomic structures, creating

and sustaining connections to stimulate collaboration is not sufficient. As was illustrated in the case study, by inviting new actors and designing and advancing new arrangements and modes of interactions between stakeholders, brokerage can go beyond mere formation or maintenance of ties to create value. This conceptualization of the brokerage process is closer to what Obstfeld refers to as “action trajectories comprising combinations of elements (e.g. people, ideas, resources, and artifacts)” (2017). This contribution adds to brokerage theory, which tends to analytically prioritize manipulation of ties as the way by which brokers create public value. Decentralized brokerage presents evidence for the importance of strategic actors in stimulating alternative ways of organizing between actors not previously connected or involved in the social structures.

The understanding elaborated here offers one way to advance brokerage to a more prominent place in theoretical and empirical accounts of organizing for change. While intermediation and control of resource flow is a core defining element of brokerage in structural formulation (Burt, 2004), establishing connections and catalysis in social relations are a core defining feature in behavioral articulations (Obstfeld, 2005). The kind of decentralized brokerage proposed here, while integrating connection building and mediation across network of alters, attributes a critical role to brokerage that includes establishing new socioeconomic arrangements and designing new forms of interaction that can ultimately introduce change into a system.

6.4.2 Contributions to our understanding of markets with social impact

The aim of the coupled diffusion model is to highlight the dynamics of growth in a market for social impact with two highly interdependent groups of stakeholders and the necessity of

behavioural change for market success. This is similar to the early stages of social transformation using market initiatives where supply and demand are imbalanced or even do not exist. The findings from the formal mathematical model developed in Chapter 5 contribute to the current understanding about the creation of markets for social impact from two perspectives. On the one hand, the model itself provides a nuanced conceptualization of market creation in a context in which arrangements are new to the stakeholders and there exist multiple interrelated communities of stakeholders shaping market outcomes.³⁴ On the other hand, along with the finding about market brokerage, the combined insights from Chapters 4 and 5 illustrate how population-level dynamics for market initiatives can be influenced by strategic actors in a transformative direction.

First, the findings from the mathematical model presented in Chapter 5 advance the literature by offering a macro-level analysis of market creation in the context of high interdependency between stakeholders. Conceptualizing a socially-oriented market as a coupled interrelated diffusion process with joint utility at its core provides an evolutionary perspective on market creation in the context of social problem solving. As opposed to static and mechanistic accounts of markets by neo-classical economists that take markets as given (Aspers, 2011), scholars of organizations and sociology have taken a more holistic approach to markets (Fligstein & Dauter, 2007; Fourcade, 2007; Padgett & Powell, 2012), viewing them as social structures governing market interactions. This well-established stream in the literature offers a complementary narrative of markets being created as social spaces (e.g. McKague et al., 2015)

³⁴ This contribution can also be translated to two-sided markets outside the context of social impact creation, such as technology platforms. However, given the scope of this research, the implications for two-sided markets are not discussed here.

through three interrelated network components of actors across the supply chain, institutions governing the interactions, and cognitive frames providing norms and values (Beckert, 2010). With a few excellent exceptions (Mair et al., 2012; K. McKague et al., 2015), little attention has been given to the creation of nascent markets. As summarised in Chapter 2, many of these studies document the microsocial processes involved in the creation of new markets. Studies of market creation using a microsocial lens provide interesting insights about the on-the-ground processes, such as mobilizing cultural codes (Weber et al., 2008), changing the collective behaviour of actors (Rao et al., 2003), or legitimating new actors (Mair et al., 2012). However, little is known about population-level dynamics at the intersection of communities of supply and demand in market creation projects. Also, little attention has been given to the substantial challenges of the market creation process as a result of “unstructured settings with extreme ambiguity” (Santos & Eisenhardt, 2009). One such extreme ambiguity includes the high-interdependency of market stakeholders in the case of socially-oriented markets.

The model’s contribution lies in conceptualizing a market as a utility-based mode of interaction between market actors (Callon & Muniesa, 2005) and how this utility is built in a feedback process by the state of the market and the interdependency of market actors. This conceptualization of utility expands the traditional formulation of utility as a mere economic computation of market participation. It incorporates the presence of other market participants and dynamic interaction between market actors in building up joint market utility. In addition, the model’s formulation and assumptions respond to the call for a systemic perspective on markets (Vargo et al., 2017) and considering all actors simultaneously in the market development process (Mele, Pels, & Storbacka, 2015). The finding about the balance between trial and

establishment dynamics highlights the path-dependent and evolutionary nature of nascent markets, particularly in resource-constrained settings. This contribution reinforces the idea of viewing the market as a transformation process (Saravathy & Dew, 2005) in which a new market emerges as a result of the evolution of a population of stakeholders.

Furthermore, the interdependent market emergence dynamics discussed in Chapter 5 enhance our knowledge by elaborating the complexities and policy trade-offs involved in the early stages of creating socially-oriented markets. Scholars have used different terms, such as social-benefit markets (Corbett & Montgomery, 2017) or moral markets (B. Lee & Georgallis, 2018; McInerney, 2014) to refer to markets at the core of which social and environment problem solving shapes the market's evolution. Such markets involve either trading of public goods, as in carbon markets (Corbett & Montgomery, 2017), or products, services, and/or means of production that are normatively valuable (McInerney, 2014) and are backed by entrepreneurs or a mobilized set of actors promoting those values, as in moral markets. Socially-oriented markets, as they are characterized in this thesis, share with such markets their *raison d'être* of addressing a social or environmental problem. However, they are distinct from both of these forms. Value is created through engagement of highly interdependent actors on both sides that are usually not involved in or are excluded from the conventional market. In addition, practices are local, and local matching between sides occurs as the market emerges. Therefore, the early stages of market development in socially-oriented markets are highly fragile. The examples of both the Good Food Program and the small-grid electricity market share these features. Therefore, using a computational model helps in applying these characteristics to the population-level outcomes of market emergence. Conceptualizing a socially-oriented market with these characteristics and

analyzing the emergence dynamics reveal the substantial policy and intervention complexity in making these nascent markets sustainable in their early stages.

In addition, the findings from Chapters 4 and 5 advance the literature on the role of intervening actors by emphasizing the system-level perspective of market creation policies. Together, these two chapters illustrate how microsocial processes of intervening actors to create new markets can influence market emergence outcomes at the macro level. The FoodShare case study suggests a range of on-the-ground efforts of intervening actors in producing temporary or long-term changes in supply and demand actors. Analysis of combined policy levers from the computational model complemented this understanding by suggesting how these actions in relation to each other may influence market success as a whole. Some excellent studies have identified the role of intervening strategic actors and brokering in creating markets for social impacts. For instance, Mair and colleagues (2012) discuss how intermediary organizations using different activities, such as redefining market architecture and legitimating new actors, facilitate evolution of inclusive markets. Similarly, McKague (2015) and colleagues suggest brokering relationships along the value chain as one of the key activities an intervening NGO used to develop a market's social structures in a less developed context. The concept of market brokerage in FoodShare reinforces the idea that intermediary actors are crucial in creating new market designs and brokering the relationships among involved stakeholders. By analyzing the combined effect of policy levers that strategic actors can deploy, the findings from the model highlight the path-dependent and evolutionary nature of market creation as new market arrangements are being carved out. Therefore, strategic actors need to constantly balance the interventions between different policies across the supply and demand sides while formulating

policies with long-term establishment goals. Infrastructure building and behavioural change as core factors in their market activities need careful nursing as they evolve.

6.4.3 Contributions to our understanding of transformative innovation policy

The findings about the joint effort of public and social actors and the catalysis role that government or social actors play in joint development of innovative solutions contribute to the current literature on transformative innovation policy. Despite the call for transformation to address “grand societal challenges” (Dubé, Addy, Blouin, & Drager, 2014; Kuhlmann & Rip, 2018; Mowery, Nelson, & Martin, 2010; Steward, 2012), present-day innovation policy models appear to fall behind in being purposive and directional in relation to these challenges. The underlying logic of the dominant innovation policy paradigm is to follow an agenda with economic growth and competitiveness at its core, but for grand challenges a societal policy agenda with a solution-oriented logic is required (Diercks, Larsen, & Steward, 2019). Mainstream innovation policy frameworks include 1) government encouragement of science and R&D with the presumption that private creation of new knowledge addresses market failures and 2) building national systems of innovation for commercializing knowledge to provoke social and economic growth. These frames, which have a narrow perspective on innovation and focus merely on the science and technology domains, are not aligned with social and environmental challenges.

A new wave of policy outlooks labelled mission-oriented policies (Foray, Mowery, & Nelson, 2012), novel policy paradigm (Kemp, 2011), or emerging frame of innovation policies for transformative change (Schot & Steinmueller, 2018) encourage a broader perspective on the innovation process as well as extend the policy agenda beyond economic objectives to broader

societal and environmental objectives (Diercks et al., 2019). This perspective invites a diverse set of actors to participate in a process of both formulating and addressing such challenges (Loorback, 2010). Contemporary challenges are the outcome not only of market failures, but also of what are called systemic failures causing institutional or infrastructural lock-ins (Wieczorek & Hekkert, 2012); and they require solutions that are rooted in social, institutional, and behavioral changes (Geels, 2004). For this reason, transformation in sociotechnical systems, which is about changing skills, infrastructures, industry structures, cultural and user preferences, and products, is proposed (Schot & Steinmueller, 2018). The findings presented in this thesis contribute to this very recent discussion on transformative innovation policy in three ways.

First, the FoodShare case enhances the theoretical understanding of the broad perspective on innovation by showcasing a participative and inclusive pathway for developing innovation and policy solutions through reciprocal interaction between policy and community actors. The broad perspective on the innovation process acknowledges a wide variety of actors from public and civil society domains. The focus of activities in the process is on the demand side of innovation (i.e. user domains) and is similar to a whole-of-society perspective on human and economic development (Addy, Poirier, Blouin, Drager, & Dubé, 2014; Dubé, Jha, et al., 2014; WHO, 2009). This active engagement of actors (societal and industrial) for the creation of social and economic value in interorganizational networks is also captured in frameworks such as convergent innovation (Dubé, Jha, et al., 2014). While co-production of social, behavioral, and policy change is at the core of transformative innovative, the pathway of incorporating end users (e.g. communities) in this process is unclear. Processes in the policy, philanthropic, and community domains in the FoodShare case suggest that formulating problem understanding as well as

solutions can engage a variety of actors from the public and social sectors. Co-creation of problem-solving paradigms from hunger to health to agriculture as well as co-creation of local community solutions engaged both policy actors and end-users of innovations interactively over the years. In this interactive process both sides (supply of innovation policy and demand for innovative solutions) were engaged in feeding their understanding of the problem domains and solution alternatives into the process. This reinforces the idea that government, which is traditionally mandated to induce innovation processes, may not be sufficient for taking on the lead role when it comes to complex societal challenges. In this interactive process, the case highlights the indispensable role of civil actors, such as citizens (Schot, Kanger, & Verbong, 2016) and non-governmental organizations in the innovation process in the broad sense.

Second, the findings suggest that organizational actors with a brokering role are critical catalysts in organizing a multiplicity of actors during the transformative innovation policy process. Brokering bodies, including FoodShare or the TFPC, facilitated the change in loci of innovation over time as the understanding of the problem and solution domains evolved. The policy approach to solving food security shifted from mobilizing charity responses and empowering other service providers within the social sector (supply-side focus) to mobilizing action and resources for innovative community solutions (demand-side focus) championed by the communities themselves. In this policy paradigm shift, brokering by government or social sector bodies is critical. Brokering is one of the mechanisms for convergence of innovation outcomes and organization of a multiplicity of actors across a network. Similar multi-stakeholder and participatory views of policymaking discuss the possible organizing mechanisms in such process. Polycentric governance (Ostrom, 2010), for instance, suggests concurrent centers of decision

making across levels and sectors to create institutional arrangements and solutions over time (McGinnis & Ostrom, 2012). Decentralized brokerage by virtue of distributing the brokering actions across the network with multiple outcomes proposes a similar organizing mechanism for harnessing stakeholders' resources and actions across the network for a unified social mission.

Third, the finding about the co-creation of situated solutions in recurrent interaction with community actors proposes a path for the experimental mode of innovation suggested in the literature. Schot & Steinmueller, (2018) suggest that an innovation process for a transformative change paradigm, apart from being inclusive, is experimental and opens up a "search process on the system level, guided by social and environmental objectives, informed by experience and the learning that accompanies that experience, and a willingness to revisit existing arrangements to de-routinize them in order to address societal challenges." They suggest that changing the direction of socio-technical systems is enabled by a level of societal learning and public accumulation of experience by various actors in the system. In the FoodShare case, the accumulation of a repertoire of interventions through cycles of experimentation and implementations was a way whereby this public experimentation in market and community domains occurred. This mode of innovation is more aligned with what Diercks et al., (2019) refer to as "doing, using, and interacting"³⁵ in the broad vision of innovation in transformative policy discussions. This interactional process of innovating with end-users of a social solution to sustaining of intended impacts is key, as "face-to-face interaction, locally embedded projects, closeness and proximity, and in some cases, intimacy are thought to be necessary ingredients for

³⁵ This is contrasted by a narrower view of transformative innovation policy that gives greater attention to science, technology, and innovation (STI) in stimulating transformative change (see Diercks et al., 2019).

sustainable change” (Fernández, Martí, & Farchi, 2017). While experimentation is the proposed mode of innovation for transformative change, it is not clear how experimentation may generate a change that goes beyond pilot or niche advancements. However, this experimentation model may create a paradox of innovation and scale-up in a social innovation process (e.g. Seelos & Mair, 2007) for which a balance of efforts should go toward either side in creating impact. The platform brokerage model discussed in the findings illustrates a potential solution to this scale-up concern. While innovative solutions are generated through experimentation by inclusion of demand-side actors for situated contextual solutions, an underlying replicative platform (the community market model) may enable the solution to be deployed by a broader range of stakeholders to create a cascading effect and scale in impact. Markets in their local form, as they were developed and supported by the focal broker, provided such a replicative platform in the case presented in this thesis.

Table 14- Summary of Contributions

Topic	Contributions
Brokerage and systemic outcomes	<ul style="list-style-type: none"> - Theorizing a new form of brokerage called “decentralized brokerage” and proposing it as a pathway to systemic impact - Extending the possibility of co-occurrence of brokerage activities to groups of alters, with brokering happening within and across groups toward different outcomes unified under solving a societal problem - Proposing the importance of mediation alongside the connection-building orientation of brokerage in contexts of underdeveloped markets and hierarchies - Formulating brokerage beyond tie manipulation to inviting new actors and designing alternative socioeconomic arrangements
Markets with social impact	<ul style="list-style-type: none"> - Developing a population process and utility-based conceptualization of market emergence - Highlighting the evolutionary nature of nascent market development - Suggesting the impact of micro-social processes of strategic actors on population dynamics for emergence of socially-oriented markets

Transformative innovation policy	<ul style="list-style-type: none"> - Providing a co-evolutionary account of including demand-side actors in a participative process of transformative innovation - Proposing brokering by public and social actors as a governing mechanism for organizing a multiplicity of actors and interactions in the transformative process - Suggesting building a repertoire of interventions as the foundation for the experimentation mode of innovation
----------------------------------	--

6.5 Limitations and Future Research Directions

The findings from this thesis provide a dynamic processual account of how brokerage organizations induce change by engaging with and influencing actors from the public, community, and market spheres. In addition, a macro-level analysis of the dynamics involved in creation of socially-oriented markets illustrates the complexities that arise from high interdependency between the supply and demand sides in such market creation projects. The mechanisms involved in nurturing new socioeconomic arrangements for addressing complex problems through bridging societal sectors are presented in the case of FoodShare. The findings regarding brokerage and systemic impact are developed on the foundation of a single case with a rich description of the context and the brokerage activities to allow for transferring the understandings to similar contexts and problems. The FoodShare case was explored in the setting of a contemporary complex challenge, i.e. solving food security and transforming the food system for better access, affordability, and health. Examining the context of food problems as it is located at the nexus of many industrial, public, and social actors and complexities of organizing around food offers valuable contributions to underexplored areas of studying organizing (Organization Studies, 2017). The multiplicity and complexities of interactions in the food system open the door for organizational and individual actors with brokering capacities. Therefore, problem domains

and contexts with similar complexities and interactions may benefit from the application of the current research findings.

Given the phenomenon and the context of study, the findings can have plausible relevance to other problem domains and contexts from two perspectives. First, the mechanisms highlighted in regard to brokerage and systemic impact can be nicely linked to other theoretical terrains where practices of bridging the gaps in social structures are critical for provoking change. Additional links can be established between the brokerage mechanisms outlined in Chapter 4 and “institutional entrepreneurship”, where actors with brokering orientation enact new institutional arrangements by building networks of collaboration and recombining ideas for achieving collective goals (e.g. Garud, Hardy, & Maguire, 2007). The finding regarding the role of brokerage organization in formulating new arrangements by proposing an innovative form of connecting people and resources offers a compelling example of institutional entrepreneurs’ actions toward collective benefits.

Second, the mechanisms identified in the model emerging from the FoodShare case study to provoke systemic impact can also apply to other complex contemporary problems. Many of these problems outlined in the United Nation’s 2030 sustainable development goals (United Nations, 2015) share some key characteristics with food security, as all can be categorized as grand challenges (Ferraro et al., 2015). These problems, which are multi-sectoral in nature and cut across professional boundaries, call for solutions that involve alignment of dispersed efforts from public, social, and market actors. Examples include income inequality and poverty alleviation, good health, affordable and clean water, and energy, among others. The findings of this thesis point to decentralized brokerage, joint effort of public and community actors, and

stimulating new market arrangements as potential pathways leading to macro-level influence in addressing such problems. Several elements of the findings are meaningful for other problem domains. For instance, the complexities of community dynamics are highlighted more than before in tackling complex problems such as income inequality (Berrone et al., 2016). The brokerage mechanisms discussed in the findings can bring a lens that connects communities where grand challenges are being enacted (Marquis & Battilana, 2009) to policies and action at the broader level in government and policy dialogues.

In addition, the findings from the mathematical model developed in Chapter 5 highlight the complex evolutionary process of creating new market arrangements in contexts where interdependency between supply and demand sides is high. As elaborated in this thesis, high interdependency of communities of supply and demand occurs in markets that aim to create new arrangements between actors with the aim of creating a social benefit. With the examples of local produce markets and small-green electricity, it was shown that in such market projects there are not large established producers or buyers but rather communities of small producers and buyers. This results in market practices that are local and high elasticity between the sides as markets emerge. The findings about the tipping behaviour of interdependent market dynamics and the propositions about trial and establishment policies to stimulate them can be applied to any new market with these characteristics. Examples vary across contexts with new market projects with social concerns, such as solar power and green electricity (Meyskens & Carsrud, 2013).

Moving beyond the scope of the current study, some interesting lines of inquiries arise from what is discussed in the thesis. First, the FoodShare case study focused on the endeavours by an

organization from the social sector to enact brokerage across different realms. The case setting is interesting in terms of both activism in the food sector and the local government's approach to social problems. This is because Toronto is known as a city remarkable for an active network of community organizations and activists, municipal and non-profit organizations as well as a well-established network of food producers and farmers (Donald & Blay-Palmer, 2006; Welsh & MacRae, 1998). While identifying the dynamics of brokering in the case, many other committed actors from government or public institutions demonstrated mobilization and brokering activities that were outside the scope of this study. Future research may investigate the similarities and differences across such brokering bodies through a comparative lens. Questions can address how dynamics may differ where a dedicated brokering organization from the public or private sector leads a transformative effort through brokering across sectors and domains. In addition, these organizations do not work in isolation. In this sense, qualitative network-level studies may explore the dynamics of interactions between different brokering organizations and how these interactions could assist or undermine intended collective benefits at the macro-level.

Second, exploring the role of large industrial players in the emergence of new market arrangements is another line of inquiry stimulated by the FoodShare case study. The Good Food Program was mostly working with smaller private-sector actors (i.e. local farmers and producers). Comparing the approximate turnover of several million dollars in this organization with the size of the food sector in the province, we can understand that while the innovative market model at FoodShare stimulates a valuable systemic impact in terms of showcasing the possibilities, there remains much to be achieved by the ecosystem in terms of scale. Reaching such a scale is contingent upon engagement of private sector actors in the new arrangements alongside public

and social players. For this reason, harnessing the power of private enterprises is one of the pillars of convergent innovation that takes a transformative approach to social benefit. For this reason, one future research line is to investigate the processes through which certain social enterprises or private sector actors may lead market creation dynamics for social benefits. In addition, engagement of bigger industrial actors changes the underlying assumptions about the emergence of socially-oriented markets. A qualitative study of the early stages of markets with big private players could enhance our understanding of how cross-side utility and interdependency change and ultimately influence market emergence dynamics. Such findings affect carbon trade markets as one of the promising social-benefit markets tackling current climate change concerns (Corbett & Montgomery, 2017).

6.6 Implications for Practice and Policy

The findings from this thesis offer insights for food system transformation endeavors in addressing interwoven health, agricultural, and insecurity issues as well as transformative policy perspectives for solving contemporary societal problems. The implications for a better understanding of food system transformation can also help in thinking more broadly about similar grand challenges faced by societies today (Berrone et al., 2016; Ferraro et al., 2015; G. George, Kotha, Parikh, Alnuaimi, & Bahaj, 2016).

First, what is presented in Chapter 4 provides a pragmatic value for understanding how innovative pathways can be stimulated to resolve malfunctioning aspects of the food provision and distribution ecosystem (e.g. food security) in a systemic manner. Organizations with brokerage capabilities are important for proposing and developing new socioeconomic spaces around food in communities and reorganizing the way food reaches underserved consumers. To

address allocation problems in the industrial food supply chains, brokerage organizations can bridge the gaps, both physically and socially, between consumers and producers, build communities around production and consumption, and connect partners from different sectors to collaborate on long-term projects. In addition, brokerage organizations can use the power of showcasing to promote further mechanisms in the ecosystem, facilitating formation of similar replications that leads to transformation at the broader level. Therefore, through encouraging the emergence of brokerage bodies in the food supply chain, innovative transformational pathways toward a more balanced food system with increased affordability and accessibility will be induced.

Additionally, this study advances our understanding of alternative food networks. Alternative food systems refers broadly to an emerging network of producers and consumers that offer progressive forms of food production and consumption compared to the standard industrial model and are usually associated with local food systems; fresh, organic, and healthy foods; small-scale farming; and food hubs (Allen, FitzSimmons, Goodman, & Warner, 2003). They are proposed as an innovative approach to re-spatialize or re-localize the food system (Marsden, Flynn, & Harrison, 2000; Renting, Marsden, & Banks, 2003). Despite the growing interest in such food systems, there is less certainty about the degree to which such initiatives can be sustained and developed over time and space (Marsden et al., 2000). This limits the share of alternate models in the overall food system and highlights the issues of scale and scope, which means that alternate models usually have difficulty scaling up the quantity and range of the products they cover. They also have considerable challenges regarding productivity because of the

organizational capacity and physical infrastructure available to them (DeLind, 2011; Fresco, 2015; Guthman, 2008).

The innovative market and community models discussed in the FoodShare study, while similar in using geographical and cultural proximity between consumers and producers and their attempt to “re-socialize” food (Renting et al., 2003, p. 398), differ in bridging both industrial and alternative models by bringing the industrial food hub into the model. This supports the idea of moving beyond dichotomies of alternative-industrial or global-local by proposing models that combine these extremes and build on the synergies of these models. For this reason, commercial economy practices need to accompany social missions, as occurred in the case presented in this thesis. Through its brokerage role, FoodShare partnered and worked with actors from both the social and the commercial sectors. This means that while acting as a business for the supply and purchase of produce, it worked with social organizations, including community agencies and other nonprofits, to guarantee demand through building capacity within communities.

From the policy perspective, a socially-oriented market and joint efforts by state and community actors can elaborate new possibilities in policy development for societal problems. Sustainability policies demonstrate a market-individual duality expressed through economic or behavioural mechanisms (Steward, 2012). A socially-oriented market concept and the distinction between the two types of policy levers introduced are particularly helpful in articulating policies beyond this duality. Socially-oriented markets situated in a meso-level network of actors from the supply and demand sides allow for policy levers that combine economic and behavioural interventions. In addition, findings from socially oriented markets reveal a substantial policy challenge toward promoting versus enabling market participation for nascent markets.

Calibrating the model using real-world case studies will enable us to define precisely which policy goals are sufficient for the settlement of supply and demand actors in the target population.

Reference:

- Abbott, A. (2001). *Time matters: On theory and method*. University of Chicago Press.
- Abrahamson, E. (1991). Managerial Fads and Fashions: the Diffusion and Rejection of Innovations. *Academy of Management Review*, 16(3), 586–612.
- Abrahamson, E., & Rosenkopf, L. (1993). Institutional and Competitive Bandwagons: Using Mathematical Modeling As a Tool To Explore Innovation Diffusion. *Academy of Management Review*, 18(3), 487–517.
- Abrahamson, Eric, & Bartner, L. R. (1990). WHEN DO BANDWAGON DIFFUSIONS ROLL? HOW FAR DO THEY GO? AND WHEN DO THEY ROLL BACKWARDS?: A COMPUTER SIMULATION. In *Academy of Management proceedings* (pp. 155–159).
- Accenture Development Partnerships. (2015). *De-centralized Electricity in Africa and Southeast Asia: Issues and Solutions*.
- Addy, N. A., Poirier, A., Blouin, C., Drager, N., & Dubé, L. (2014). Whole-of-society approach for public health policymaking: a case study of polycentric governance from Quebec, Canada. *Annals of the New York Academy of Sciences*, 1331(1), 216–229.
- Aiken, M., & Slater, R. (2007). Feeling the squeeze ? Tabbies or tigers : the case of social enterprises contracting in the fields of recycling and work integration. In *4th Annual Social Enterprise Research Conference*. London, UK.
- Aldrich, H., & Herker, D. (1977). Boundary spanning roles and organization structure. *Academy of Management Review*.
- Allen, P., FitzSimmons, M., Goodman, M., & Warner, K. (2003). Shifting plates in the agrifood landscape: the tectonics of alternative agrifood initiatives in California. *Journal of Rural Studies*, 19(1), 61–75.
- Anderson, R. M., May, R. M., & Anderson, B. (1992). *Infectious diseases of humans: dynamics and control* (Vol. 28). Wiley Online Library.
- Anderson, S. (2014). *New Strategies for Social Innovation: Market-Based Approaches for Assisting the Poor*. Columbia University Press.
- Ansari, S., Gray, B., & Wijen, F. (2011). Fiddling while the ice melts? How organizational scholars can take a more active role in the climate change debate. *Strategic Organization*, 9(1), 70–76.
- Aspers, P. (2011). *Markets*. Cambridge, UK: Polity Press.
- Bass, F. M. (1969). A New Product Growth for Model Consumer Durables. *Management Science*.
- Beckert, J. (2010). How do fields change? The interrelations of institutions, networks, and cognition in the dynamics of markets. *Organization Studies*, 31(5), 605–627.
- Beckie, M. A., Kennedy, E. H., & Wittman, H. (2012). Scaling up alternative food networks: Farmers' markets and the role of clustering in western Canada. *Agriculture and Human Values*, 29(3), 333–345.

- Berends, H., & Deken, F. (2019). Composing qualitative process research. *Strategic Organization*.
- Berrone, P., Gelabert, L., Massa-Saluzzo, F., & Rousseau, H. E. (2016). Understanding Community Dynamics in the Study of Grand Challenges: How Nonprofits, Institutional Actors, and the Community Fabric Interact to Influence Income Inequality. *Academy of Management Journal*, 59(6), 1940–1964.
- Bizzi, L., & Langley, A. (2012). Studying processes in and around networks. *Industrial Marketing Management*, 41(2), 224–234.
- Brown, L. (1998). Creating social capital: nongovernmental development organizations and intersectoral problem solving. *Private Action and the Public Good*.
- Burt, R. S. (1997). The Contingent Value of Social Capital. *Administrative Science Quarterly*, 42(2), 339–365.
- Burt, R. S. (2000). *The network structure of social capital. Research in Organizational Behavior* (Vol. 22).
- Burt, R. S. (2004). Structural Holes and Good Ideas. *The American Journal of Sociology*, 110(2), 349–399.
- Burton, R. M., & Obel, B. (2011). Computational Modeling for What-Is, What-Might-Be and What-Should-Be Studies — And Triangulation. *Organization Science*, 22(5), 1195–1202.
- Cadieux, K., & Slocum, R. (2015). What does it mean to do food justice? *Journal of Political Ecology*, 1–26.
- Callon, M., & Muniesa, F. (2005). Economic markets as calculative collective devices. *Organization Studies*, 26, 1229–1250.
- Campbell, J. L. (2005). Where do we stand? *Social Movements and Organization Theory*, 41–48.
- Cardon, V., Foster, P., Grindstaff, L., Jones, C., Kemper, T., Mayer, V., ... others. (2015). *Brokerage and Production in the American and French Entertainment Industries: Invisible Hands in Cultural Markets*. Lexington Books.
- Carroll, G. R., & Swaminathan, A. (2000). Why the Microbrewery Movement? Organizational Dynamics of Resource Partitioning in the U.S. Brewing Industry. *American Journal of Sociology*, 106(3), 715–762.
- Charmaz, K. (2006). *Constructing grounded theory: A practical guide through qualitative analysis*. sage.
- Chaskin, R. (2001). Organizational infrastructure and community capacity: The role of broker organizations. *The Organizational Response to Social Problems*.
- Classens, M, McMurtry, J. J., & Sumner, J. (2014). Doing markets differently: The case of FoodShare Toronto's Good Food Markets. *Social Purpose Enterprises: Case Studies in Doing Business Differently*, 215–235.
- Classens, Michael. (2015). Food, space and the city: theorizing the free spaces of FoodShare's Good Food Markets. *Canadian Journal of Urban Research*, 24(1), 44–61.
- Collet, F., Robertson, D. A., & Lup, D. (2014). When does brokerage matter? Citation impact of

- research teams in an emerging academic field. *Strategic Organization*, 12(3), 157–179.
- Collins-Dogrul, J. (2012). Tertius iungens Brokerage and Transnational Intersectoral Cooperation. *Organization Studies*, 33(8), 989–1014.
- Corbett, J., & Montgomery, A. W. (2017). Environmental Entrepreneurship and Interorganizational Arrangements: A Model of Social-benefit Market Creation. *Strategic Entrepreneurship Journal*, 11(4), 422–440.
- Corley, K. G., & Gioia, D. a. (2011). Building Theory about Theory: What Constitutes a Theoretical Contribution? *Academy of Management Review*, 36(1), 12–32.
- Davis, G. F., & Zald, M. N. (2005). Social change, social theory, and the convergence of movements and organizations. In *Social movements and organization theory* (pp. 335–350). New York: Cambridge University Press.
- Davis, J. P., Eisenhardt, K. M., & Bigham, C. B. (2007). Developing Theory Through Simulation Methods. *Academy of Management Review*, 32(2), 480–499.
- Davis, J. P., Eisenhardt, K. M., & Bingham, C. B. (2007). Developing theory through simulation methods. *The Academy of Management Review ARCHIVE*, 32(2), 480–499.
- DeLind, L. (2011). Are local food and the local food movement taking us where we want to go? Or are we hitching our wagons to the wrong stars? *Agriculture and Human Values*.
- Dey, P., & Lehner, O. (2017). Registering ideology in the creation of social entrepreneurs: Intermediary organizations, 'ideal subject' and the promise of enjoyment. *Journal of Business Ethics*, 142(4), 753–767.
- Diercks, G., Larsen, H., & Steward, F. (2019). Transformative innovation policy: Addressing variety in an emerging policy paradigm. *Research Policy*, 48(4), 880–894.
- Donald, B., & Blay-Palmer, A. (2006). The urban creative-food economy: producing food for the urban elite or social inclusion opportunity? *Environment and Planning A*, 38(10), 1901–1920.
- Dubé, L., Addy, N. A., Blouin, C., & Drager, N. (2014). From Policy Coherence to 21st Century Convergence: a whole-of-society Paradigm of Human and Economic Development. *Annals of the New York Academy of Sciences*, 1331.1, 201–215.
- Dubé, L., Jha, S., Faber, A., Struben, J., London, T., Mohapatra, A., ... McDermott, J. (2014). Convergent innovation for sustainable economic growth and affordable universal health care: innovating the way we innovate. *Annals of the New York Academy of Sciences*, 1331(1), 119–141.
- Durand, R., & Georgallis, P. (2018). Differential firm commitment to industries supported by social movement organizations. *Organization Science*, 29(1), 154–171.
- Eisenhardt, K. ., & Bourgeois, L. J. (1988). Politics of strategic decision making in high-velocity environments: Toward a midrange theory. *Academy of Management Journal*.
- Eisenhardt, K. M., & Graebner, M. E. (2007). THEORY BUILDING FROM CASES: OPPORTUNITIES AND CHALLENGES. *Academy of Management Journal*, 50(1), 25–32.
- Escalante, N. (2013). Exploratory Dynamic Analysis of the Adoption of Biowaste Separation

- Behavior in Households. In *31st International Conference of the System Dynamics Society* (pp. 1–11). Cambridge, Massachusetts, USA.
- Evans, P., & Ostrom, E. (1997). State-society synergy. *Government and Social Capital in Development*. Berkeley: IAS.
- FAO, IFAD, UNICEF, WFP, & WHO. (2018). *The State of Food Security and Nutrition in the World 2018. Building climate resilience for food security and nutrition*. Rome, FAO.
- Fernández, P. D., Martí, I., & Farchi, T. (2017). Mundane and Everyday Politics for and from the Neighborhood. *Organization Studies*, 38(2), 201–223.
- Fernandez, R. M., & Gould, R. V. (1994). A Dilemma of State Power: Brokerage and Influence in the National Health Policy Domain. *American Journal of Sociology*, 99(6), 1455.
- Ferraro, F., Etzion, D., & Gehman, J. (2015). Tackling Grand Challenges Pragmatically: Robust Action Revisited. *Organization Studies*, 36(3), 363–390.
- Field, D. (2006). Building the ecological food system: from hunger to health, ecosystems, and communities. *Makingwaves*, 17(2).
- Fleming, L., Mingo, S., & Chen, D. (2007). Collaborative Brokerage, Generative Creativity, and Creative Success. *Administrative Science Quarterly*, 52(3), 443–475.
- Fligstein, N. (1996). Markets as Politics: A Political-Cultural Approach to Market Institutions. *American Sociological Review*, 61(4), 656.
- Fligstein, N. (2001). Social skill and the theory of fields. *Sociological Theory*.
- Fligstein, N., & Dauter, L. (2007). The Sociology of Markets. *Annual Review of Sociology*, 33(1), 105–128.
- FoodShare. (2009). *Food Animation Evaluation Report*.
- FoodShare. (2016). *FoodShare Toronto Strategic Plan 2016-2018*. Toronto, Ontario.
- FoodShare. (2017). *2017 Impact Report*. Toronto, Ontario.
- Foray, D., Mowery, D. C., & Nelson, R. R. (2012). Public R&D and social challenges: What lessons from mission R&D programs? *Research Policy*, 41(10), 1697–1702.
- Fourcade, M. (2007). Theories of markets and theories of society. *American Behavioral Scientist*, 50(8), 1015–1034.
- Fresco, L. (2015). *Hamburgers in Paradise: The Stories behind the Food We Eat*.
- Friedman, R., & Podolny, J. (1992). Differentiation of boundary spanning roles: Labor negotiations and implications for role conflict. *Administrative Science Quarterly*.
- Friedmann, H. (1993). The political economy of food: a global crisis. *New Left Review*, (197), 29–57.
- Garud, R., Hardy, C., & Maguire, S. (2007). Institutional entrepreneurship as embedded agency: An introduction to the special issue. *Organization Studies*, 28(Journal Article), 957–969.
- Geels, F. W. (2004). From sectoral systems of innovation to socio-technical systems: Insights about dynamics and change from sociology and institutional theory. *Research Policy*, 33(6–

7), 897–920.

- George, A. L., & Bennett, A. (2005). *Case studies and theory development in the social sciences*. mit Press.
- George, G., Kotha, R., Parikh, P., Alnuaimi, T., & Bahaj, A. S. (2016). Social structure, reasonable gain, and entrepreneurship in Africa. *Strategic Management Journal*, 37(6), 1118–1131.
- Giang, T., Karpyn, A., Laurison, H. B., Hillier, A., & Perry, R. D. (2008). Closing the grocery gap in underserved communities: the creation of the Pennsylvania Fresh Food Financing Initiative. *Journal of Public Health Management and Practice : JPHMP*, 14(3), 272–279.
- Gioia, D. A., Corley, K. G., & Hamilton, A. L. (2013). Seeking Qualitative Rigor in Inductive Research: Notes on the Gioia Methodology. *Organizational Research Methods*, 16(1), 15–31.
- Gladwell, M. (2006). *The tipping point: How little things can make a big difference*. Little, Brown.
- Glaser, B. G. (1992). *Basics of grounded theory analysis: Emergence vs forcing*. Sociology press.
- Godfray, H. C. J., Beddington, J. R., Crute, I. R., Haddad, L., Lawrence, D., Muir, J. F., ... Toulmin, C. (2010). Food Security: The Challenge of Feeding 9 Billion People. *Science*, 327(5967), 812–818.
- Gould, R. V., & Fernandez, R. M. (1989). Structures of mediation: A formal approach to brokerage in transaction networks. *Sociological Methodology*, 89–126.
- Graebner, M. E., Martin, J. A., & Roundy, P. T. (2012). Qualitative data: Cooking without a recipe. *Strategic Organization*, 10(3), 276–284.
- Granovetter, M. S. (1978). Threshold Models of Collective Behavior. *American Journal of Sociology*, 83(6), 1420–1443.
- Guthman, J. (2008). Bringing good food to others: Investigating the subjects of alternative food practice. *Cultural Geographies*.
- Hahn, T., Olsson, P., Folke, C., & Johansson, K. (2006). Trust-building, knowledge generation and organizational innovations: the role of a bridging organization for adaptive comanagement of a wetland landscape around. *Human Ecology*.
- Halevy, N., Halali, E., & Zlatev, J. J. (2018). Brokerage and Brokering: An Integrative Review and Organizing Framework for Third Party Influence. *Academy of Management Annals*, 13(1), 215–239.
- Hargadon, A., & Sutton, R. I. . (1997). Technology Brokering and Innovation in a Product Development Vol . 42 , No . 4 (Dec . , 1997), pp . 716-749 Published by : Sage Publications , Inc . on b. *Administrative Science Quarterly*, 42(4), 716–749.
- Heasman, M., & Lang, T. (2006). Plotting the Future of Food: Putting ecologically-driven, community-based policy at the heart of Canada's food economy. *Makingwaves*.
- Henson, S., & Humphrey, J. (2015). *Assessing the effectiveness of agri-food value chain interventions aimed at enhancing consumption of nutritious food by the poor: Conceptual framework*. Leveraging Agriculture for Nutrition in South Asia (LANSA).

- Hinrichs, C. C. (2000). Embeddedness and local food systems: notes on two types of direct agricultural market. *Journal of Rural Studies*, 16, 295–303.
- Hopewell, B. (2001). The Tipping Point. *Long Range Planning*, 34(1), 97–98.
- Howells, J. (2006). Intermediation and the role of intermediaries in innovation. *Research Policy*, 35(5), 715–728.
- Ibarra, H., Kilduff, M., & Tsai, W. (2005). Zooming In and Out: Connecting Individuals and Collectivities at the Frontiers of Organizational Network Research. *Organization Science*, 16(4), 359–371.
- James, E. (1987). The nonprofit sector in comparative perspective. *The Nonprofit Sector: A Research Handbook*, 1, 397–415.
- Jarzabkowski, P., Bednarek, R., & Lê, J. K. (2014). Producing persuasive findings: Demystifying ethnographic textwork in strategy and organization research. *Strategic Organization*, 12(4), 274–287.
- Johnston, J., & Baker, L. (2005). Eating outside the box: FoodShare's good food box and the challenge of scale. *Agriculture and Human Values*, 22(3), 313–325.
- Karnani, A. (2011). *Fighting poverty together: rethinking strategies for business, governments, and civil society to reduce poverty*. Macmillan.
- Kemp, R. (2011). Ten themes for eco-innovation policies in Europe. *SAPI EN. S. Surveys and Perspectives Integrating Environment and Society*, (4.2).
- Kermack, W. O., & McKendrick, A. G. (1933). Contributions to the mathematical theory of epidemics. III. Further studies of the problem of endemicity. *Proceedings of the Royal Society of London. Series A, Containing Papers of a Mathematical and Physical Character*, 94–122.
- Khurana, R. (2002). Market triads: A theoretical and empirical analysis of market intermediation. *Journal for the Theory of Social Behaviour*, 32(2), 239-262+iii.
- Klerkx, L., & Leeuwis, C. (2009). Establishment and embedding of innovation brokers at different innovation system levels: Insights from the Dutch agricultural sector. *Technological Forecasting and Social Change*, 76(6), 849–860.
- Koc, M., MacRae, R., Desjardins, E., & Roberts, W. (2008). Getting Civil About Food: The Interactions Between Civil Society and the State to Advance Sustainable Food Systems in Canada. *Journal of Hunger & Environmental Nutrition*, 3(2–3), 122–144.
- Kolk, A., Levy, D., & Pinkse, J. (2008). Corporate Responses in an Emerging Climate Regime: The Institutionalization and Commensuration of Carbon Disclosure. *European Accounting Review*, 17(4), 719–745.
- Kretzmann, J., & McKnight, J. P. (1996). Assets-based community development. *National Civic Review*, 85(4), 23–29.
- Kuhlmann, S., & Rip, A. (2018). Next-Generation Innovation Policy and Grand Challenges. *Science and Public Policy*, 45(4), 448–454.
- Kurland, N. B., & McCaffrey, S. J. (2014). *Social Movement Organization Leaders and the Creation*

of Markets for “Local” Goods. Business & Society.

- Langley, A. (1999). Strategies for theorizing from process data. *Academy of Management Review*, 24(4), 691–710.
- Langley, A., & Abdallah, C. (2015). Templates and turns in qualitative studies of strategy and management. In *Research methods for strategic management* (pp. 155–184). Routledge.
- Langley, A., Smallman, C., Tsoukas, H., & Van de Ven, A. H. (2013). Process Studies of Change in Organization and Management: Unveiling Temporality, Activity, and Flow. *Academy of Management Journal*, 56(1), 1–13.
- Langley, A., & Tsoukas, H. (2017). Introduction: Process thinking, process theorizing and process researching. *The SAGE Handbook of Process Organizational Studies*, 1–26.
- Lee, B., & Georgallis, P. (2018). Toward a theory of entry in moral markets: The role of social movements and organizational identity.
- Lee, B. H. (2009). The Infrastructure of Collective Action and Policy Content Diffusion in the Organic Food Industry. *The Academy of Management Journal*, 52(6), 1247–1269.
- Lee, B., Struben, J., & Bingham, C. (2018). Collective action and market formation: An integrative framework. *Strategic Management Journal*, 39(1), 242–266.
- Leyshon, A., Lee, R., & Williams, C. (2003). *Alternative economic spaces*.
- Lincoln, Y. S., & Guba, E. G. (1985). *Naturalistic inquiry*. Newbury Park, CA: SAGE Publications.
- Lingo, E. L., & O’Mahony, S. (2010). Nexus Work: Brokerage on Creative Projects. *Administrative Science Quarterly*, 55(1), 47–81.
- Loorback, D. (2010). Transition Management for Sustainable Development: A Prescriptive, Complexity-Based Governance Framework. *Governance*, 23(1), 161–183.
- Lounsbury, M., & Glynn, M. A. (2001). Cultural entrepreneurship: Stories, legitimacy, and the acquisition of resources. *Strategic Management Journal*, 22(6–7), 545–564.
- Lounsbury, M., Ventresca, M., & Hirsch, P. M. (2003). Social Movements, Field Frames and Industry Emergence: A Cultural-political Perspective on US Recycling. *Socio-Economic Review*, 71–104.
- MacRae, R. (1994). So why is the city of Toronto concerned about food and agriculture policy? A short history of the Toronto Food Policy Council. *Culture & Agriculture*, 15(50), 15–18.
- Mahajan, V., Muller, E., & Bass, F. M. (1990). New Product Diffusion Models in Marketing: A Review and Directions for Research. *Journal of Marketing*, 54(1), 1–26.
- Mahajan, V., Muller, E., & Wind, Y. (2000). *New-product diffusion models*. Springer Science & Business Media.
- Mair, J., Marti, I., & Ventresca, M. J. (2012). Building Inclusive Markets in Rural Bangladesh: How Intermediaries Work Institutional Voids. *Academy of Management Journal*, 55(4), 819–850.
- Mansfield, E. (1961). Technical change and the rate of imitation. *Econometrica*, 29, 741–766.
- Marquis, C., & Battilana, J. (2009). Acting globally but thinking locally? The enduring influence of

- local communities on organizations. *Research in Organizational Behavior*, 29, 283–302.
- Marsden, P. (1982). Brokerage behavior in restricted exchange networks. *Social Structure and Network Analysis*, 7(4), 341–410.
- Marsden, T., Flynn, A., & Harrison, M. (2000). *Consuming interests: the social provision of foods*. London: UCL Press.
- Mathie, A., & Cunningham, G. (2003). From clients to citizens: Asset-based community development as a strategy for community-driven development. *Development in Practice*, 13(5), 474–486.
- May, R. M., & Anderson, R. M. (1979). Population biology of infectious diseases: Part II. *Nature*, 280(5722), 455–461.
- McAdam, D., Tarrow, S., & Tilly, C. (2001). *Dynamics of contention*. Cambridge, CUP.
- McGinnis, M. D., & Ostrom, E. (2012). Reflections on Vincent Ostrom, public administration, and polycentricity. *Public Administration Review*, 72(Journal Article), 15–25.
- McInerney, P.-B. (2014). *From social movement to moral market: How the circuit riders sparked an IT revolution and created a technology market*. Stanford University Press.
- McKague, K., Zietsma, C., & Oliver, C. (2015). Building the Social Structure of a Market. *Organization Studies*, 36(8), 1063–1093.
- McKague, Kevin, & Siddiquee, M. (2014). *Making markets more inclusive: lessons from CARE and the future of sustainability in agricultural value chain development*. Springer.
- McQuarrie, M. (2011). *Nonprofits and the reconstruction of urban governance: Housing production and community development in Cleveland, 1975-2005*.
- Mele, C., Pels, J., & Storbacka, K. (2015). A holistic market conceptualization. *Journal of the Academy of Marketing Science*, 43(1), 100–114.
- Meyer, A. D., Gaba, V., & Colwell, K. a. (2005). Organizing Far from Equilibrium: Nonlinear Change in Organizational Fields. *Organization Science*, 16(5), 456–473.
- Meyskens, M., & Carsrud, A. L. (2013). Nascent green-technology ventures: a study assessing the role of partnership diversity in firm success. *Small Business Economics*, 40(3), 739–759.
- Molitero, T. P., & Mahony, D. M. (2011). Network Theory of Organization: A Multilevel Approach. *Journal of Management*, 37(2), 443–467.
- Morgan, K., Marsden, T., & Murdoch, J. (2008). *Worlds of food: Place, power, and provenance in the food chain*. Oxford University Press on Demand.
- Mowery, D. C., Nelson, R. R., & Martin, B. R. (2010). Technology policy and global warming: Why new policy models are needed (or why putting new wine in old bottles won't work). *Research Policy*, 39(8), 1011–1023.
- Murdoch, J., Marsden, T., & Banks, J. (2000). Quality, Nature, and Embeddedness: Some Theoretical Considerations in the Context of the Food Sector. *Economic Geography*, 76(2), 107–125.
- Najam, A. (2000). The four C's of government third Sector-Government relations. *Nonprofit*

- Management and Leadership*, 10(4), 375–396.
- Obstfeld, D. (2005). Social Networks , Orientation , and Innovation. *Administrative Science Quarterly*, 50(March), 100–130.
- Obstfeld, D. (2017). *Getting New Things Done: Networks, Brokerage, and the Assembly of Innovative Action*. Stanford University Press.
- Obstfeld, D., Borgatti, S. P., & Davis, J. (2014). Brokerage as a Process: Decoupling Third Party Action from Social Network Structure, (May 2016), 135–159.
- Organization Studies. (2017). Call for Papers for a Special Issue on Food Organizing Matters: Paradoxes, Problems and Potentialities.
- Ostrom, E. (2010). Beyond markets and states: polycentric governance of complex economic systems. *The American Economic Review Journal Article*, 641.
- Padgett, J. F., & Powell, W. W. (2012). The problem of emergence. *The Emergence of Organizations and Markets*, 1–29.
- Patton, M. (2002). *Qualitative Research and Evaluation Methods* (3rd ed.). Sage: Newbury Park.
- Pawlowski, & Robey. (2004). Bridging User Organizations: Knowledge Brokering and the Work of Information Technology Professionals. *MIS Quarterly*, 28(4), 645.
- Pearce, D. (2004). Environmental market creation: saviour or oversell? *Portuguese Economic Journal*, 3, 115–144.
- People’s Food Commission. (1980). *The Land of Milk and Money*.
- Perdan, S., & Azapagic, A. (2011). Carbon trading: Current schemes and future developments. *Energy Policy*, 39(10), 6040–6054.
- Peres, R., Muller, E., & Mahajan, V. (2010). Innovation diffusion and new product growth models: A critical review and research directions. *International Journal of Research in Marketing*, 27(2), 91–106.
- Pettigrew, A. M. (1997). What is a processual analysis? *Scandinavian Journal of Management*, 13(4), 337–348.
- Pollock, T. G., Porac, J. F., & Wade, J. B. (2004). Constructing deal networks: Brokers as network “architects” in the U.S. IPO market and other examples. *Academy of Management Review*, 29(1), 50–72.
- Poppendieck, J. (1998). Want amid plenty: From hunger to inequality. *Monthly Review*, 50(3).
- Prigogine, I., & Stengers, I. (1985). *Order out of Chaos*.
- Provan, K., & Kenis, P. (2008). Modes of network governance: Structure, management, and effectiveness. *Journal of Public Administration Research and Theory*.
- Putnam, R. D., & Feldstein, L. (2009). *Better together: Restoring the American community*. Simon and Schuster.
- Quintane, E., & Carnabuci, G. (2016). How Do Brokers Broker? Tertius Gaudens, Tertius Iungens, and the Temporality of Structural Holes. *Organization Science*, 27(6), 1343–1360.

- Rahmandad, H., & Sterman, J. (2008). Heterogeneity and Network Structure in the Dynamics of Diffusion: Comparing Agent-Based and Differential Equation Models. *Management Science*, 54(5), 998–1014.
- Ramanath, R., & Ebrahim, A. (2010). Strategies and Tactics in NGO–Government Relations Insights from Slum Housing in Mumbai. *Nonprofit Management & Leadership*, 21(1).
- Rao, H., Monin, P., & Durand, R. (2003). Institutional Change in Toque Ville: Nouvelle Cuisine as an Identity Movement in French Gastronomy. *American Journal of Sociology*, 108(4), 795–843.
- Rao, H., Morrill, C., & Zald, M. N. (2000). Power plays: How social movements and collective action create new organizational forms. *Research in Organizational Behavior*, 22, 237–281.
- Renting, H., Marsden, T. K., & Banks, J. (2003). Understanding Alternative Food Networks: Exploring the Role of Short Food Supply Chains in Rural Development. *Environment and Planning A*, 35(3), 393–411.
- Repenning, N. P. (2001). *Innovation Understanding fire fighting in new product development* * (Vol. 18).
- Riches, G. (1997). Hunger, food security and welfare policies: issues and debates in First World societies. *Proceedings of the Nutrition Society*, 56(1997), 63–74.
- Riches, G. (2002). Food banks and food security: welfare reform, human rights and social policy. Lessons from Canada? *Social Policy & Administration*, 36(6), 648–663.
- Rogers, E. M. (1962). *Diffusion of innovations*. The Free Press. New York.
- Rogers, E. M. (2010). *Diffusion of innovations* (4th Editio). Simon and Schuster.
- Rubineau, B., & Fernandez, R. M. (2015). Tipping Points: The Gender Segregating and Desegregating Effects of Network Recruitment. *Organization Science*, 26(6), 1646–1664.
- Rudolph, J. W., & Repenning, N. P. (2002). Disaster Dynamics: Understanding the Role of Quantity in Organizational Collapse. *Administrative Science Quarterly*, 47(1), 1.
- Sandor, R., Walsh, M., & Marques, R. (2002). Greenhouse–gas–trading markets. *Philosophical Transactions of the Royal Society of London. Series A: Mathematical, Physical and Engineering Sciences*, 360(1797), 1889–1900.
- Santos, F. M., & Eisenhardt, K. M. (2009). Constructing markets and shaping boundaries: Entrepreneurial power in nascent fields. *Academy of Management Journal*, 52(4), 643–671.
- Sarasvathy, S. D., & Dew, N. (2005). New market creation through transformation. *Journal of Evolutionary Economics*, 15(5), 533–565.
- Scharf, K. (1999). A nonprofit system for fresh-produce distribution: The case of Toronto, Canada. *For Hunger-Proof Cities: Sustainable Urban Food Systems*. Ottawa: International Development Research Centre, 122–127.
- Schneiberg, M., & Lounsbury, M. (2008). Social Movements and Institutional Analysis. In *The handbook of organizational institutionalism* (pp. 648–670).
- Schot, J., Kanger, L., & Verbong, G. (2016). The roles of users in shaping transitions to new energy

- systems. *Nature Energy*, 1(5), 16054.
- Schot, J., & Steinmueller, W. E. (2018). Three frames for innovation policy: R&D, systems of innovation and transformative change. *Research Policy*, 47(9), 1554–1567.
- Seelos, C., & Mair, J. (2007). Profitable Business Models and Market Creation in the Context of Deep Poverty: A Strategic View. *Academy of Management Perspectives*, 21(4), 49–63.
- Selsky, J. W., & Parker, B. (2005). Cross-Sector Partnerships to Address Social Issues: Challenges to Theory and Practice. *Journal of Management*, 31(6), 849–873.
- Senge, P. (1990). *The fifth discipline: The art and practice of organizational learning*. New York, NY: Doubleday/Currency.
- Sgourev, S. V. (2015). Brokerage as catalysis: How Diaghilev's ballets Russes escalated modernism. *Organization Studies*, 36(3), 343–361.
- Shaw, H. J. (2006). Food Deserts: Towards The Development of A Classification. *Geogr. Ann.*, 88, 231–247.
- Sikavica, K., & Pozner, J.-E. (2013). Paradise sold: Resource partitioning and the organic movement in the US farming industry. *Organization Studies*, 34(5–6), 623–651.
- Simmel, G. (1950). *The sociology of georg simmel* (Vol. 92892). Simon and Schuster.
- Sine, W. D., Haveman, H. A., & Tolbert, P. S. (2005). Risky Business? Entrepreneurship in the New Independent-Power Sector. *Administrative Science Quarterly*, 50(2), 200–232.
- Sine, W. D., & Lee, B. H. (2009). Tilting at Windmills? The Environmental Movement and the Emergence of the U.S. Wind Energy Sector. *Administrative Science Quarterly*, 54(1), 123–155.
- Slater, R., Frederickson, J., Wield, D., & Potter, S. (2006). Delivering sustainable technologies for waste: improving uptake through partnership. ESRC End of Award Report (RES-338-25-0002), Swindon.
- Small, M. L. (2009). *Unanticipated gains: Origins of network inequality in everyday life*. Oxford University Press.
- Smith, S. R., & Grønbjerg, K. A. (2006). Scope and theory of government-nonprofit relations. In *The nonprofit sector: A research handbook* (Vol. 2, pp. 221–242). Yale University Press New Haven, CT.
- Spiro, E. S., Acton, R. M., & Butts, C. T. (2013). Extended structures of mediation: Re-examining brokerage in dynamic networks. *Social Networks*, 35(1), 130–143.
- Stadtler, L., & Probst, G. (2012). How broker organizations can facilitate public-private partnerships for development. *European Management Journal*, 30(1), 32–46.
- Stagl, S. (2002). Local Organic Food Markets : Potentials and Limitations for Contributing to Sustainable Development. *Empirica, Kluwer Academic Publishers.*, 29, 145–162.
- Sterman, J. D. (2001). System Dynamics Modeling: Tools for learning in complex world. *California Management Review*, 43(4).
- Steward, F. (2012). Transformative innovation policy to meet the challenge of climate change:

- sociotechnical networks aligned with consumption and end-use as new transition arenas for a low-carbon society or green economy. *Technology Analysis & Strategic Management*, 24(4), 331–343.
- Story, M., Kaphingst, K. M., Brien, R. R., Glanz, K., & Robinson-O'Brien, R. (2008). Creating healthy food and eating environments: policy and environmental approaches. *Annual Review of Public Health*, 29, 253–72.
- Stovel, K., & Shaw, L. (2012). Brokerage. *Annual Review of Sociology*, 38(1), 139–158.
- Strang, D., & Soule, S. A. (1998). Diffusion in organizations and social movements: From hybrid corn to poison pills. *Annual Review of Sociology*, 24(1), 265–290.
- Strauss, A., & Corbin, J. M. (1997). *Grounded theory in practice*. Sage.
- Stremersch, S., Tellis, G. J., Hans Franses, P., & Binken, J. L. G. (2007). Indirect network effects in new product growth. *Journal of Marketing*, 71(3), 52–74.
- Styhre, A., & Remneland-Wikhamn, B. (2016). Connecting life science entrepreneurs with resources and expertise: the role of iungens brokerage in life science innovation. *Technology Analysis & Strategic Management*, 28(6), 627–638.
- Tarasuk, V. (2001). A critical examination of community-based responses to household food insecurity in Canada. *Health Education & Behavior : The Official Publication of the Society for Public Health Education*, 28(4), 487–499.
- Tarasuk, V. S., & Beaton, G. H. (1998). Household food insecurity and hunger among families using food banks. *Canadian Journal of Public Health= Revue Canadienne de Sante Publique*, 90(2), 109–113.
- Tarrow, S., & McAdam, D. (2005). Scale shift in transnational contention. *Transnational Protest and Global Activism*, 121–150.
- Teron, A. C., & Tarasuk, V. S. (1999). Charitable food assistance: What are food bank users receiving? *Canadian Journal of Public Health/Revue Canadienne de Sante'e Publique*, 382–384.
- Toronto Food Strategy. (2010). *Cultivating Food Connections: Toward a Healthy and Sustainable Food System for Toronto*.
- United Nations. (2015). *Transforming our World: The 2030 Agenda for Sustainable Development*.
- Van de Ven, A., & Poole, M. S. (1995). Explaining development and change in organizations. *Academy of Management Review*, 20(3), 510–540.
- van der Ploeg, J. D., Renting, H., Brunori, G., Knickel, K., Mannion, J., Marsden, T., ... Ventura, F. (2000). Rural Development: From Practices and Policies towards Theory. *Sociologia Ruralis*, 40(4), 391–408.
- Vargo, S. L., Koskela-Huotari, K., Baron, S., Edvardsson, B., Reynoso, J., & Colurcio, M. (2017). A systems perspective on markets – Toward a research agenda. *Journal of Business Research*, 79, 260–268.
- Vettas, N. (1998). Demand and supply in new markets: Diffusion with bilateral learning. *RAND*

- Journal of Economics*, 29(1), 215–233.
- Waltzer, M. (1995). The Concept of Civil Society. In *Towards a global civil society*. Berghahn Books.
- Weber, K., Heinze, K. L., & DeSoucey, M. (2008). Forage for Thought: Mobilizing Codes in the Movement for Grass-fed Meat and Dairy Products. *Administrative Science Quarterly*, 53(3), 529–567.
- Weber, & Rohracher, H. (2012). Legitimizing research, technology and innovation policies for transformative change: Combining insights from innovation systems and multi-level perspective in a comprehensive “failures” framework. *Research Policy*, 41(6), 1037–1047.
- Welsh, J., & MacRae, R. (1998). Food Citizenship and Community Food Security: Lessons from Toronto, Canada. *Canadian Journal of Development Studies*, 19(4), 237–255.
- Wever, C. Foodhub Case Study: FoodShare’s Good Food Programming, Hubs Within a Hub (2015).
- White, H. C. (1981). Where Do Markets Come From? *American Journal of Sociology*, 87(3), 517–547.
- White, H. C. (2002). *Markets from networks: Socioeconomic models of production*. Princeton University Press.
- WHO. (2009). Social Determinants of Health. *World Health Organization*, [Http://www.who.int/social_determinants/en/](http://www.who.int/social_determinants/en/), (Journal Article).
- Wieczorek, A. J., & Hekkert, M. P. (2012). Systemic instruments for systemic innovation problems: A framework for policy makers and innovation scholars. *Science and Public Policy*, 39(1), 74–87.
- Wilson, B., & Tsoa, E. (2002). HungerCount 2002. Eating their words: Government failure on food security. *Toronto, Ontario, Canada: Canadian Association of Food Banks*. Retrieved on October, 18, 2003.
- Woolcock, M., & Narayan, D. (2000). Social capital: Implications for development theory, research, and policy. *The World Bank Research Observer*, 15(2), 225–249.
- Yin, R. K. (2003). *Case Study Research: Design and Methods*. (K. Wiley, S. Robinson, & G. Dickens, Eds.) (3rd ed.). London, New Delhi: Thousand Oaks :Sage Publications Inc.
- Young, D. R. (2000). Alternative Models of Government-Nonprofit Sector Relations: Theoretical and International Perspectives. *Nonprofit and Voluntary Sector Quarterly*, 29(1), 149–172.
- Zelizer, V. (2005). Culture and consumption. *The Handbook of Economic Sociology*, 2, 331–355.
- Zelizer, V. A. R. (1983). *Morals and markets: The development of life insurance in the United States*. Transaction Publishers.
- Zelizer, V. A. R. (1997). *The social meaning of money*. Princeton University Press.

Appendix A: Examples of Empirical Studies Relevant to Brokerage

Table 15- Examples of Empirical Studies Relevant to Brokering

Scholars/ years	Main research question	Broader research/ Theoretical approach	Research context	Findings relevant to brokerage/Brokering practices
Fernandez and Gould (1994)	Correlation of brokerage structural position and translating the position into power	Social network theory	Social structure of the US national energy and health policy domains under the Carter presidency	1. Occupancy of brokerage position is crucial determinant of influence. 2. The ability to convert structural position into power is contingent on the type of position and whether the actor is a government organization. 3. Five structurally different broker positions include: liaison, representative, gatekeeper, itinerant broker, and coordinator.
Hargadon and Sutton (1997)	How technology brokering facilitates the process of knowledge and technology transfer	Social networks and organizational memory	Ethnographic study of a product design firm	1. Brokering is more than a linking role and includes transforming knowledge being transferred. 2. A process model of technology brokering that includes access, acquisition, storage and retrieval
Chaskin (2001)	Role of broker organizations in building partnerships to promote interorganizational relations and building community capacity	Community building literature	Case study of an ongoing implementation of one comprehensive community initiative	Broker organizations are one organizational response to address complex community problems and building community capacity. Other than facilitating interorganizational partnerships and a forum for collective decision making, they have a central role as a clearing house (conduit for dissemination of information and resources) and mediator in the community.
Burt (2004)	The mechanisms by which brokerage provides social capital	Social capital theory and structural holes	Survey to examine networks around managers in a large American electronics company	People near the holes in a social structure are more likely to have good ideas. The between-group brokers are more likely to express ideas and less likely to have ideas dismissed.
Pawlowski & Robey, (2004)	Knowledge brokering from the perspective of IT professionals	Boundary spanning and knowledge brokering	Qualitative analysis of interviews conducted with 23 IT professionals and business users in a manufacturing and distribution company	- Brokering practices are conditioned by structural and technical conditions. - Brokering practices: gaining permission to cross organizational boundaries, surfacing and challenging assumptions by users, translation and interpretation, relinquishing ownership of knowledge
Obstfeld (2005)	Micro-processes in social networks of those involved in organizational innovation and their strategic behavioral	<i>lungens</i> brokerage, structural holes theory	Innovation network in an engineering division of an automotive manufacturer	<i>Tertius iungens</i> orientation, social knowledge, and social network density are independent predictors of innovation involvement within the firm.

Scholars/ years	Main research question	Broader research/ Theoretical approach	Research context	Findings relevant to brokerage/Brokering practices
	orientation toward connecting people			
Howells (2006)	Role of intermediaries in the innovation process	Innovation literature and intermediatio n	Case studies of innovation intermediaries in UK	Typology and framework of the different roles and functions of the intermediation within innovation process
Fleming, Mingo, & Chen, (2007)	The influence of brokered versus cohesive collaborative social structures on an individual's creativity.	Social capital of brokerage and cohesion	Utility patents from 1975 to 2002 in the careers of 35,400 collaborative inventors	Brokerage—direct ties to collaborators who themselves do not have direct ties to each other—leads to greater collaborative creativity but hampers its diffusion and use by others.
Klerkx & Leeuwis, (2009)	Innovation brokers	Innovation systems and innovation intermediary literature	Different types of innovation brokers emerged in the Dutch agricultural sector	Innovation brokers, despite having catalyzing effect on innovation, have difficulty in becoming embedded, as their clients or financiers have a hard time grasping the nature and value of their activities
Lingo and O'Mahony (2010)	How brokers in creative projects integrate the ideas of others	Brokerage literature – Creative work literature	Ethnographic investigation of 23 independent music producers	Producers used different practices between two ideal conceptions of brokerage – strategic actors extracting advantage from their position vs. relational actors connecting others to foster creativity – to foster creative collective outcome. Both <i>tertius gaudens</i> and <i>tertius iungens</i> approaches used to achieve collective creative outcomes
Collins-Dogrul (2012)	How <i>iungens</i> brokerage, boundary spanning to connect unconnected actors, helps create and sustain transnational intersectoral cooperation	Structural, interorganizati onal and cultural- cognitive brokerage literatures	Public health brokerage on the USA–Mexico border	<i>iungens</i> brokerage is a critical sustained process that creates new networks and reinforces old ones to counter the divisive effects that state institutions tend to exert on transnational networks over time.
Stadtler and Probst (2012)	Role of broker organizations in facilitating partnering processes between public and private actors	Social capital, collaboration and inter- organizational learning literatures	Two brokered public- private partnerships in the area of education	Broker organizations' function goes beyond simple match-making and includes roles of convener, mediator, and learning catalyst in the partnering process
Collet et al (2014)	How does the return on brokerage change as fields evolve?	Structural holes theory	Emergence of strategic management as a field	Benefits of network brokerage are higher at early stages of field development and decline as the field matures
Sgourev (2015)	Catalysis role of brokerage and how brokerage can trigger a chain of events that can lead to systemic transformation	Network theory	Case study of <i>Ballet Russes</i> , a revolutionary dance company in early 20 th century and its founder	In establishing connections brokers can exercise an impact far exceeding their original intent, leading to broader consequences that they can control and benefit from only partly.

Scholars/ years	Main research question	Broader research/ Theoretical approach	Research context	Findings relevant to brokerage/Brokering practices
Styhre and Remneland- Wikhamn (2016)	How major pharmaceutical companies act as <i>iungens</i>	<i>Iungens</i> and innovation literature	A bio hub initiative at a major pharmaceutical company	Hosting company taking a <i>iungens</i> role connects previously unconnected actors, lowering transaction costs for accessing detailed know-how, providing great value for life science companies, and benefiting life science innovation.

Appendix B: Interview Guide

Introduction

- Introducing myself as the interviewer
- Introduce the research topic and my thesis for which this research is conducted.
- Appreciate the interviewee's time and collaboration.

Ethical Issues

- No name will be indicated in the research
- Consent form explanation: make sure the form is to protect the interviewee
- At any point you can terminate the interview or skip any question you are not comfortable answering.

Background General Questions

1. General info about the organization/program (*will not ask this directly, just ask interviewee to elaborate a bit about his/her role in the organization)
 - 1.1. What is your position in FoodShare (FS)? Which programs are you involved with?
 - 1.2. How did you join FoodShare?
 - 1.3. What makes you passionate about working with FoodShare?

Note: I distribute routine demographic short-response questions throughout the interview.

Overall opinion about the organization:

In your opinion:

2. Which programs in your portfolio are the ones with the most leverage and in which you have made the most difference in targeted communities?
 - 2.1. Why has FS been successful in this program?
3. Which programs has the most geographical spread and has scaled-up (going beyond local reach with a new diverse set of partners)?
4. Which programs within FoodShare have social enterprise aspects?
 - 4.1. How important to FoodShare is being a social enterprise with financial sustainability?
5. Who are FoodShare's partners that you interact with?
 - 5.1. Which sectors are they in?
 - 5.2. How about businesses?
6. Which have been the most successful partnerships? Can you describe the most successful? The least successful?
7. How does FS's innovative distribution model interact with the conventional food distribution model?

Program Specific Questions:

8. Can you briefly explain how XYZ program works?
 - 8.1. How has this program evolved from the beginning?
 - 8.2. What is the story of the growth of the program? When did it start?
 - 8.3. What are the main social, economic, environmental objective(s) of the program? (poverty, access, health)

9. What do you look at to see if your program is working/successful? (the success indicators)
 - 9.1. What do you record about of the program? What data do you keep record of?
10. Are there communities/neighborhoods in which this program has failed to work? Why?
 - 10.1. What are the major challenges and opportunities to work on in this aspect of the regional food system?

11. Relation to other programs within FS

- 11.1. What is the interaction of each program with other programs within FS (e.g. shared infrastructure, resource mobilization, knowledge sharing etc.)?
- 11.2. What is the interconnection of each program with other programs within the targeted community?

Brokering role (within each program):

12. Who are the external partners or organizations that work with FS in relation to this program (government, business, foundations, community partners, etc.)?
 - 12.1. How diverse they are?

Brokering role (Catalyst role of brokerage):

13. What is the role of FS in connecting actors from different sectors regarding this program?
 - 13.1. How do you connect previously disconnected stakeholders to achieve the program's goals?
 - 13.2. How do you facilitate collaboration between different stakeholders in the food system?
 - 13.3. Can you explain the instances where FS has increased the frequency of interactions between stakeholders or has improved the relationship among them?
14. FoodShare is for "good food for all" as its social mission and identifies itself as non-profit but at the same time works on a profit-basis with its two social enterprises. How do you reconcile these two viewpoints?
15. How does FoodShare find common ground between these diverse partners?
16. (Good Food Program specific) FoodShare is working with both for profits, like farmers, Ontario food terminals, and growers as well as community partners and non-profits.
 - 16.1. How different are these actors in terms of their thinking or approaches to working?
 - 16.2. What are the challenges of working with both types of actors?
 - 16.3. What are some strategies that you use to solve problems and challenges?

Brokering role (middleman type brokerage):

17. How does FoodShare help the flow of fruits and vegetables from producers to target communities?
18. How does FoodShare help the flow of information within the network of actors in the food system?
19. How does FoodShare help the flow of financial resources to stakeholders in the networks (communities, small enterprises, other non-profits)?

Market and macro-level impact of FoodShare:

- 19.1. How does FoodShare articulate the need for infrastructure, knowledge, or policies to support its programs?
- 19.2. What is the role of FoodShare in providing knowledge, concrete suggestions, tools, benchmarking, and training for the network of partners?

Demand-side specific section (asking consumers or community partners)

- 20. How has this program changed your (people's) buying practices? How has the practice of buying fresh fruits and vegetables changed in your (people's) mind since using the FS program?
- 21. How different is it for you to use the FoodShare program to get fruits and vegetables?
- 22. How has FS changed your way of interacting with food in general in your community?

Specific to community partners

- 22.1. What type of work do you do with FoodShare?
- 22.2. How has working with FS helped you reach out to your community?
- 22.3. Have you been connected to other community partners, non-profit organizations, etc. through working with FoodShare? How?
 - 22.3.1. Have you continued working with those organizations?

Supply-side specific section

- 23. How do you/producers collaborate with FoodShare?
- 24. How has working with FS helped you/producers in your/their business?
- 25. Have you/producers/farmers been connected to new buyers, farmers, transport organizations, etc. through working with FoodShare?
 - 25.1. How have they used these connections to grow their business?
- 26. Have you been connected to other producers, farmers, transport organizations through working with FoodShare? How?

Appendix C: Illustrative Summary Table of Major Events in the FoodShare Case

Note: This table is a summary table of an extended excel sheet and provides only an illustration of one part of first step in data analysis.

Table 16 - Major Key Events in the FoodShare Case

Phase	Year	Key City Actions (relevant to FoodShare work)	FoodShare Key Programs (initiation year, relevant to markets)/ events	FoodShare Highlights
PHASE 1 (1985-92)	1985	FoodShare Established: Mayor Art Eggleton's \$20,000 pilot program to address hunger in Toronto	Hunger Hotlink (Renamed to Foodlink)	1. Social Justice 2. Beyond Charity 3. Involvement of Communities themselves (community organizing)
	1989		Toronto's first Health Beginnings program	
	1989		Food Action Project	
			Establishing coop and going to the terminal	
	1991	Toronto Food Policy Council (TFPC) established	Coalition for school food nutrition	
	1991		FS and Public Health partnership, community kitchen project	
	1991		Community revolving fund (partnership with two other non-profits): Small loans to people to start small businesses	
	1991	TFPC feasibility of a not-for-profit healthy food delivery system for Toronto's low-income citizens (idea of FTTFT)		
PHASE 2 (1992-2000)	1992		Field to Table Traveling Food Truck (FTTFT)	1. Universal student nutrition 2. Social enterprise model 3. Direct relationship with farmers
			Appointment of Food Share's 3rd executive director.	
	1994		Good Food Box	
			Bulk Produce for schools and community agencies	
	1995	Ontario Public Health Association (OPHA) -- Food and nutrition strategy for ON outlining income, health, and agriculture	FS moved to city-owned warehouse (Creation of incubation and food hub)	
	1996	Food 2002 consultative process: bringing in farmers, private sector, community organizations, food banks, social welfare agencies to plan for making food available to all ON	Toronto Kitchen incubator (commercial kitchen for entrepreneurs)	

Phase	Year	Key City Actions (relevant to FoodShare work)	FoodShare Key Programs (initiation year, relevant to markets)/ events	FoodShare Highlights
	1996		Rooftop gardens Baby and toddler nutrition Field to table catering	
	1997		FoodShare representatives travelled to Brazil to visit the city Belo Horizonte (city that ended hunger using municipal subsidies to increase access to healthy fresh food at reduced cost to consumers), brought back insights for FS programs.	
	1997		Food Youth Intern program (skills program)	
	1998	Federal Gov. released Canada's action plan for food security, recognized important role of civil society and multisectoral approach	Toronto Partners for Student Nutrition	
	1998		Power soups	
	1999	FAHAC was formed: "Food for thought" report from Hunger and Action Committee to get the City to address hunger issues (FS staff were highly involved); Toronto's Food Charter and grants for food projects	FS chaired Toronto community garden networks (coordinated relationship between gardeners and the city)	
PHASE 3 (2000-05)	2000	Food Charter was adopted by City Council	Supported 93 community gardens and began selling the gardens' produce	1. Community Animation 2. Urban Agriculture
			Large-scale rooftop farm, City's Millennium Award	
	2001	National conference "Working Together, civil society input for food security in Canada":	Debbie Field at the National conference: Emphasis on a networking approach linking organizations as well as producing strategies	
	2001	City Council adopts Toronto's Food Charter. City Council voted to become a food-secure city.		
	2002		FoodShare sponsored a national food security conference. Advocated for development of a national food security network	
	2002	Toronto's Official Plan includes language about the importance of the local/regional food system	Sunshine CAMH Market (Combining community garden and market ideas)	
	2003	"Tending the Garden" report by the City: basis for a more permanent grassroots food coalition	Eat, grow, share campaign (to make food policy accessible)	

Phase	Year	Key City Actions (relevant to FoodShare work)	FoodShare Key Programs (initiation year, relevant to markets)/ events	FoodShare Highlights
	2004	Statistics Canada: childhood obesity concerns	Toronto community food animators' partnership	
PHASE 4 (2005-10)	2005	Establishment of priority neighborhoods by United Way and mirrored by the City in 2006: 13 priority neighborhoods		1. Good Food Markets 2. Field-to-Table schools 3. Priority neighborhoods 4. Creation of food hub within Toronto food hub
	2005	City of Toronto budget allocates funds towards food security		
	2005	Green Belt Act: Protect green spaces for farmlands, water lands, watersheds	Good Food Markets (2 were established)	
	2006		FS moves office to an underused school building. During renovation, Good Food Box operation moved to Daily Bread Food Bank basement	
	2006		Good Food for Life program (education, skill building)	
	2008	Provincial government \$32m investment in student nutrition programs over the following 3 years		
	2009		Good food café in schools (modelling universal healthy school cafeteria) Recipe for change campaign (introducing food literacy into school curriculum)	
	2009		3-year strategic plan: 1) Direct impact, 2) Building community-based partnerships and Influencing policy, and 3) Support and infrastructure development.	
	2009		Field-to-Table school launched 10 food-print shaped gardens in partnership with TDSB, French schools board, and ministry of environment	
	2010	Toronto Food Strategy established	Hosted 1st annual recipes for chance fundraiser and first annual Ontario fall harvest celebration; FS celebrates 25-year anniversary	
	2011		Deputations on school food programs	
	2011		Hosts Toronto's urban agriculture learning centre	
	2012	City established its Tower Renewal Program: revitalize city's dense apartment communities	Mobile Good Food Markets	
	2012	Ontario Food Terminal opened to public for the first time in support of FoodShare for 'Fresh Fest' event attracting 3500 community members	Albany First Nation communities' market	

Phase	Year	Key City Actions (relevant to FoodShare work)	FoodShare Key Programs (initiation year, relevant to markets)/ events	FoodShare Highlights
	2012		Food Justice program (later Food Supportive Partnership platform)	
	2012		First school-grown rooftop is opened	
	2013	Donation of a Trans bus by the Toronto Transit Commission; Mobile Good Food Market began to operate throughout the year	Mobile Market expansion	

Appendix D: Illustrative Visual Mapping of FoodShare's Life Phases

Note: The visual maps below are only illustrative of the data analysis process in stage 2.

