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Social Enterprises in Supply Chains

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Social Enterprises in Supply Chains

Ales Jug

A Dissertation

Submitted to the Faculty

of the

WORCESTER POLYTECHNIC INSTITUTE

In partial fulfilment of the requirements for the

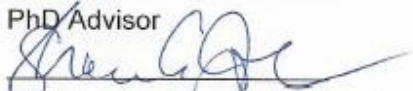Degree of Doctor of Philosophy

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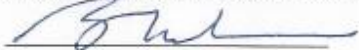Prof. Joseph Sarkis, Worcester Polytechnic Institute
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Executive Summary

Fire prevention[1] is a critical component in achieving social welfare and prosperity. The lack of worldwide fire prevention leads to an increasing number of fires, as well as to a greater number of fire-related deaths, injuries, and fire-related property damage. Traditionally, fire prevention has been the responsibility of individual governments, while fire prevention duties are usually carried out by local fire departments. Such an approach is very common and is observed globally.

Until now, the above response has been successful. For example, due to fire prevention measures applied in the 1990s, the number of fires caused by open flames (such as candles) was significantly reduced. Since 2014, the number of fires in some Western countries (e.g., the US and the UK) shows an increasing trend. In March 2019,11, people have died in fires across Connecticut (O'Neill 2019). From 2017 to 2018, the number of people who died in fires in Mississippi grew by more than 40 percent (Moore 2019). Among the main reasons for this growth are new combustible materials, reduced fire prevention funds, and more dynamic lifestyles.

Lack of fire prevention consequently increases fire risks, and, as a result, health inequalities. According to Whitehead and Dahlgren (2007), health inequalities are health differences that are avoidable, unjust, unfair, and unacceptable. The question arises: do current fire prevention services allow sufficient support for people to be safe from fire, specifically in domestic environments? Can social enterprises play a role and how do they fit into the fire prevention supply chain.

The purpose of this research is to gain an understanding of social enterprises and their influence on supply chains, in general, and specifically for fire prevention supply chains. This phenomenon is evaluated through the lenses of social capital theory and institutional theory. Research (Rothstein and Stolle 2008) has shown the effects that social capital

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[1] Fire prevention is a series of measures and practices directed toward the prevention and suppression of destructive fires. Effective prevention is dependent on accurate characterization of risk (Elder et al., 1996). Prevention effectiveness refers to the degree to which the fire service avoids or minimizes the incidence of fires (Coutler, 1979).

has on institutions, or simply how can it be used as a strategic resource (Gulati and Gargiulo 1999).

Institutional and Social Capital Theories set the foundation of how social enterprises transform and contribute to sustainable supply chains, plus how they solve social problems, specifically fire safety (Patuelli and Savioli 2016). According to Wallace and Wallace (1997), social capital provides a collective resource that can be mobilized by individuals to enable communities to develop resilience against severe threats to public health, such as social exclusion or even unemployment.

By identifying three dimensions of sustainable development: techno-economic, ecological and social (Clift 2003; Hutchins and Sutherland 2008; Yakovleva and Sarkis 2010), there are various social capital diffusion mechanisms for building sustainability within supply chains through social enterprise involvement. Transforming supply chains by building social legitimacy[2] and by altering institutional norms, are examples of providing competitive advantages to supply chains and supply chain partners of social enterprises.

This research seeks to understand social enterprises and entrepreneurship capabilities transform institutions to strengthen supply chain sustainability. Ideally, these institutions should provide solutions to the problem of decreased awareness of sustainable fire prevention, as well as available resources for fire prevention. This research focus is primarily on social sustainability and safety through fire prevention.

The importance of this study lies in our contributions to help diffuse socially sustainable solutions and practices across supply chains. In this case, similar to other social concerns, the problem of fire prevention is a critical one within supply chains and society. Understanding the role of social enterprise to help diffuse these norms and practices help to understand general supply chain sustainability concerns for competitive and social reasons.

Methodologically, a qualitative, exploratory method was applied. To analyze the data collected for this research, we used a Thematic Analysis. Three supply chains with social

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[2] Legitimacy can be defined inclusively as a "generalized perception or assumption that the actions of an entity are desirable, proper, or appropriate within some socially constructed system of norms, values, beliefs, and definitions" (Suchman 1995 p. 574).

enterprises as a focal firm were investigated. This research contributes by furthering the theory of sustainable supply chains with the involvement of social enterprise; or hybrid organizations - that have both a social and a strategic financial outlook. The research involves the utilization of Thematic Analysis, and semi-structured interviews of three fire prevention focused supply chains.

This study is the first that investigates fire prevention from the perspective of supply chains and social enterprises. The results will inform other types of sustainability and social enterprises, which include humanitarian, environmental, educational, and poverty based foci.

Chapter 1

Our aim in this chapter is to introduce the central problem and the motivation for analysis. We start with a brief discussion about the main research constructs: social entrepreneurship, social capital, supply chain and sustainability plus fire and fire prevention. Then, we introduce the research framework, the problem statement, and the rationale of study.

1.1. Introduction and Motivation

Supply chain sustainability is increasingly recognized as a critical component of corporate responsibility and legitimacy (Bisogno 2016). Managing the social, environmental, and economic impacts, known as the triple bottom line of supply chains, makes good business sense as well as being the right thing to do. The important preconditions for supply chain sustainability are legal, ethical, and responsible actions (Seuring and Müller 2008). However, they must also consider how their actions (for example, supporting fire prevention) are situated in the broader context of sustainability.

A supply chain is sustainable only if nature and society can support or are not harmed by its activities over a long period (Cetinkaya et al. 2011). Supply chain sustainability is the management of environmental, social, and economic impacts. It is the encouragement of good governance practices throughout the lifecycle of goods and services. Fire safety, achieved through sufficient fire prevention, can be understood as an important sustainability factor, especially social sustainability.

The objective of supply chain sustainability is to create, protect, and grow long-term environmental, social, and economic value for all stakeholders who are involved in bringing products and services to market (Seuring and Müller 2008). There are many compelling business reasons to take action to improve social and environmental impacts throughout the supply chain, and one is fire safety. Fire safety can be achieved by not

letting the fire happen (preventing fire ignition) or by dealing with the fire after it has happened (managing fire impact branch) (Taylor et al. 2011).

The concept of sustainability performance suggests that a firm must extend its focus beyond maximizing short-term shareholder profits. It must consider social and environmental aspects, the impact of its operations and supply chain sustainability on all stakeholders, including the community, society, and the environment. With increased fire safety risks (Kirkpatrick, Hakim, and Glanz 2017) the role and importance of sustainable supply chains are stronger. For example, fire prevention methods could have caused economic and safety (social) sustainability for the recent supply chain disruption of Ford F-150 production due to a fire explosion (Isidore 2018; Waldmeir 2018).

Broadly, this research considers institutional and social capital theory to help understand the role of social enterprises within supply chains. It also discusses how organizational, social, and institutional legitimacy play a role in motivating or hindering the emergence and evolution of various supply chain partnerships plus supporting fire prevention norms diffusion.

Social capital broadly refers to the resources accumulated through the relationships among people and organizations (Coleman 1988). Bourdieu and Wacquant (1992, p. 231) define social capital as ''the sum of the resources, actual or virtual, that accrue to an individual or a group by possessing a durable network of more or less institutionalized relationships of mutual acquaintance and recognition''.

The potential contribution of social capital, commonly known as civic engagement and social connectedness, to development, appears to be immense, as corroborated by rapidly growing empirical knowledge (Pantoja 2000). In this connection Putnam (Putnam 1995) notes, "much hard evidence has accumulated that civic engagement and social connectedness are practical preconditions for better schools, safer streets, faster economic growth, more effective government, and even healthier and longer lives." Similarly, empirical evidence shows that social capital represents a propensity for mutually beneficial collective action, which, in turn, results from the quality of relationships among people within a particular group or community (Bhuiyan and Evers 2005).

Communities with a high level of social capital produce superior outcomes in joint actions, while communities with low social capital can be assisted by building up their social capital resources, leading to improved performance (Bhuiyan and Evers 2005; Dhesi 2010). Economic development, community peace, and democratic participation can be promoted in this manner, simply by investing in stocks of social capital (Krishna and Uphoff 1999).

In our work, the word social is used in both constructs: social enterprise and social capital. The word social for such a process is legitimated by andetymology of the word socius: 'someone following someone else,' a 'follower,' an 'associate' (Latour 2005). According to Latour (2005), the word social is used to deploy the associations that have rendered some state of affairs robust and durable. Among various definitions, Princeton's WordNet (Princeton University 2019) defines social as:

- relating to human society and its members,

- relating to or belonging to or characteristic of high society and,

- composed of sociable people or formed for the purpose of sociability.

Later on, we will incorporate this definition in explaining the social entrepreneurship and social capital constructs.

1.1.1. Fire and Fire Prevention

Fire has been crucial to the development of human society and civilization. In comparison to other natural disasters, fire constitutes a significant threat to life and property both in urban and rural areas (Sorathia et al. 1997). Fires are the accidents which occur most frequently, whose causes are the most diverse. They require intervention methods and techniques adapted to the unique conditions and needs of each incident (Reason 2016).

Every year, more than 3,800 people die in fire-related deaths in the U.S. Approximately 18,300 people are injured annually in fires (National Fire Data Center 2016). On average more than 60 firefighters die every year in the line of duty (FEMA Report 2015). More

fatalities are caused by smoke inhalation, rather than by heat exposure (Stec and Hull 2011). In the United States, between 250 and 300 children suffer fire-related deaths or burns every year (National Fire Data Center 2016).

Over half of the children who die are under age 4, and over half of those children are boys (National Fire Data Center 2016). Small children are less likely to recognize the dangers of playing with fire, more likely to hide once a fire breaks out, and less likely to have been taught home fire escape tactics.

More than 90% of fire outbreaks are preventable. But prevention does not occur due to careless habits, lack of knowledge, inappropriate fire prevention measures, or available resources (DiGuiseppi et al. 2002). Since ancient times, humans have practiced fire protection (Troitzsch 2016). For example, ancient Romans established fire regulations plus attempted to protect combustible materials more effectively against unwanted fires (Troitzsch 2016).

However, fires consumed entire ancient cities because of proximally close buildings consisting mainly of wood or similar combustible materials. Fire prevention is most often a set of expensive and poorly coordinated activities managed by governmental and civil society organizations (Higgins, Taylor, and Francis 2012a), providing few alternative solutions.

In order to address fire risk related problems, organizations are extending their commitments to responsible and sustainable business supply chains. They establish these commitments because of the inherent social and environmental risks, supply chain governance challenges, and the rewards that supply chain sustainability can deliver.

Sustainable supply chain management can be a strong driver of value and success – a solution for business and society. A fire event could reduce the overall sustainability of a building through the release of pollutants and the subsequent re-build (Martin, Tomida, and Meacham 2016). At this time, there are three dimensions of sustainable building development: techno-economic, ecological, and societal (Clift 2003). As the relationship between sustainability and fire prevention remains an unexplored topic needing clarification, we collected and discussed some views on this important topic:

- <u>Techno-economic</u> sustainability refers to a quantitative and qualitative understanding of technology's impact on, and research breakthroughs regarding the financial viability of society's individuals, households, and corporations. Often, techno-economic sustainability deals with material and energy flows and life cycle costing. Techno-economic sustainable components include active and passive fire prevention systems and their impact on fire safety.

Numerous house fire prevention initiatives have been globally introduced in various communities in an attempt to reduce morbidity and mortality (Warda, Tenenbein, and Moffatt 1999). Modern fire protection and prevention play a substantial role in reducing fire hazards (Troitzsch 2016). Active and passive fire systems are all parts of modern fire protection and prevention. Active fire protection is based on fire detection and suppression systems. Smoke detectors help to alert occupants and to give early alarms to fire fighters, providing them with adequate time to extinguish fires. This includes systems which compartmentalize buildings through the use of fire-resistance-rated walls and floors, which keeps fires from spreading quickly and provides escape time for people, and animals living inside (Mróz, Hager, and Korniejenko 2016). Sprinkler systems are a typical example of active fire protection which may have prevented the spread fatal Grenfell tower[3] fire from spreading (Watt 2017). In 1911, sprinklers might have stopped the Triangle Waist Company fire. Three weeks before the disaster where 146 workers died, an industry group had objected to regulations requiring sprinklers, calling them "cumbersome and costly"(von Drehle 2006).

Fire safety improves resilience as well as sustainability within the supply chain. According to several scholars (Rasmussen, Nixon, and Warner 1990; Woods and Hollnagel 2006), success and sustainability belong to organizations, groups, and individuals who are resilient in the sense that they recognize, adapt to and absorb environmental changes. These changes, disturbances, disruptions, and surprises frequently fall outside of the set of disturbances that the systems are designed to

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[3] On 14 June 2017, a fire broke out in the 24-storey Grenfell Tower block of flats in North Kensington, West London just before 1:00 am BST; it caused 72 deaths, including those of two victims who later died in hospital.

handle. Supply chains analyzed in this research deliver socially beneficial goods and services such as fire safety.

- Ecological sustainability – UK National Fire Statistics from 2018 show that the acute toxicity of fire effluents is the biggest short-term cause of death and injury from unwanted fires (Stec et al. 2019). There have been surprisingly few reports of the long term consequences of unwanted fires on the environment (Stec and Hull 2011; Stec et al. 2019), however many fires have an impact on the environment because of the relative ease of transmission of harmful chemicals emitted by combustible materials and fire-fighting agents to the nearby environment (Hamzi and Innal 2011; Martin et al. 2016). Furthermore, cost associated with the environment (post fire clean up) is often carried by soil samples, collected six months after the Grenfell tower fire, show significant quantities of fire effluents. Namely, cancer-causing chemicals and other potentially harmful toxins have been found up to 140 meters (153 yards) from the Grenfell Tower in fire debris and soil samples (Hopkins 2019). The recent inferno that ripped through the Paris Notre Dame Cathedral in April 2019 melted 300 tons of lead from its roof and steeple, according to French environmental campaign group Robin des Bois (Des Bois 2019). In the square, adjacent to the fire scene, lead levels are 32 to 65 times above the safe limit of 0.3 grams per kilogram recommended by French health authorities (John and Crouin 2019).

- Social sustainability - The supply chain is delivering a social good. The actions are such that this social good/service adds to social sustainability. The incidence of fire and its associated costs is widely recognized to be a serious social problem; indeed, the U.S. fire death rate is one of the highest per capita in the industrialized world (Andrews 2010; Andrews and Brewer 2010). Seen through a public health lens, the previously mentioned Grenfell Tower Fire is ultimately about social inequality in modern Britain (Watt 2017).

  As stated by McKee and Watt (2017; 2017), this fire is a tragic tale of political ineptitude and neglect, disenfranchised and marginalized families who are ignored by those in positions of power and authority, and by public services who are unable to cope with the immediate and long-term consequences of fire.

1.1.2. Supply Chain Sustainability and Social Capital

Supply chain sustainability is the management of environmental, social, and economic impacts, plus the encouragement of good governance practices throughout the lifecycles of goods and services (Srivastava 2007). The objective of supply chain sustainability is to create, protect, and grow long-term environmental, social and economic value for all stakeholders involved in bringing products and services to market (Srivastava 2007; Qinghua Zhu, Sarkis, and Lai 2017).

In understanding sustainability, our study primarily focused on how the capabilities of social enterprises can enhance supply chain management to promote fire prevention through and being able to form these relationships through social capital. Scholars have initially identified how social enterprise plays a role in promoting social capital (Dhesi 2000; M. A. Peredo and Chrisman 2006; Dhesi 2010, Abreu and Camarinha-Matos 2010; Sweet 2017). Perhaps the most commonly proposed framework for addressing social sustainability is that of valuing stocks of capital, notably of social capital (Lehtonen 2004). Social capital can be considered an enabling resource that improves the effectiveness of other inputs in development (Dhesi 2000; Sweet 2017). Even though the academic literature has paid increasing attention to the role of institutions, governance, and social capital in the development process, the role of social enterprises and their ability to build social capital in supply chain management is a rather new and under-researched topic.

According to Andrews and Brewer (2010), social capital is likely to be an important determinant of fire service outcomes and suggests that political engagement and social trust components may be the most important focus for public policies seeking to build social capital in order to reduce fire fatalities.

This research proposes that social enterprises are influential partners in supply chains and that they increase sustainability (Tate and Bals 2016). Thus, we investigate the contribution that social enterprises can bring to supply chains. Social enterprises can strengthen social capital in the supply chain (Kerlin 2006; Osborne et al. 2006). Where

social capital is high in formalized groups, people or organizations have the confidence to invest in collective activities, knowing that others will do so too (Pretty 2003).

Social capital can contribute to the quality of supply chain interactions by reconceiving the intersection between society and corporate performance. (Kilpatrick, Bell, and Falk 1999; Porter and Kramer 2011). We can reasonably anticipate that the participation of the social enterprises in supply chain cans improve sustainability; especially social sustainability. Social capital has been shown to provide sustainable solutions in rural India. According to Chopra (2001), institutions that link peoples' expectations for respect and quality of life with that which they currently have, make development both more comprehensive and more sustainable. Scholars such as Sen (Sen 1987) used the concept of 'social capital' for addressing the social dimension of sustainable development.

The initial theoretical framework for this research (see Figure 1.1.) has two elements: antecedents for social enterprises to become supply chain members and the benefits supply chain members can have from social enterprises as members in supply chains.

To set the foundation of the sustainable supply chain, social enterprises, and fire prevention relationships, social capital theory and Institutional theory are introduced and linked using the research framework in the next section.

1.1.3. The Research Framework

In this research, we believe that supply chain partners will have varying levels of perceived social capital. Perceived social capital is the degree to which individuals or organizations believe in their ability to access informational and social support from connections with others (Chang and Zhu 2012). Organizations will have different interests and motives to join supply chains. In this case, social capital perceptions from social enterprises and other supply chain members play a role.

According to institutional theory, institutions work as forces upon individuals and organizations by creating social pressures and restrictions, setting boundaries for what is acceptable and what is not. Such influences can be in the form of normative, coercive,

and mimetic isomorphic pressures (Dimaggio and Powell 1983; Davidsson, Hunter, and Klofsten 2006). Normative pressures consist of social pressures on organizations and their members to conform to certain norms.

Antecedents   Activity (phenomenon)   Outcomes
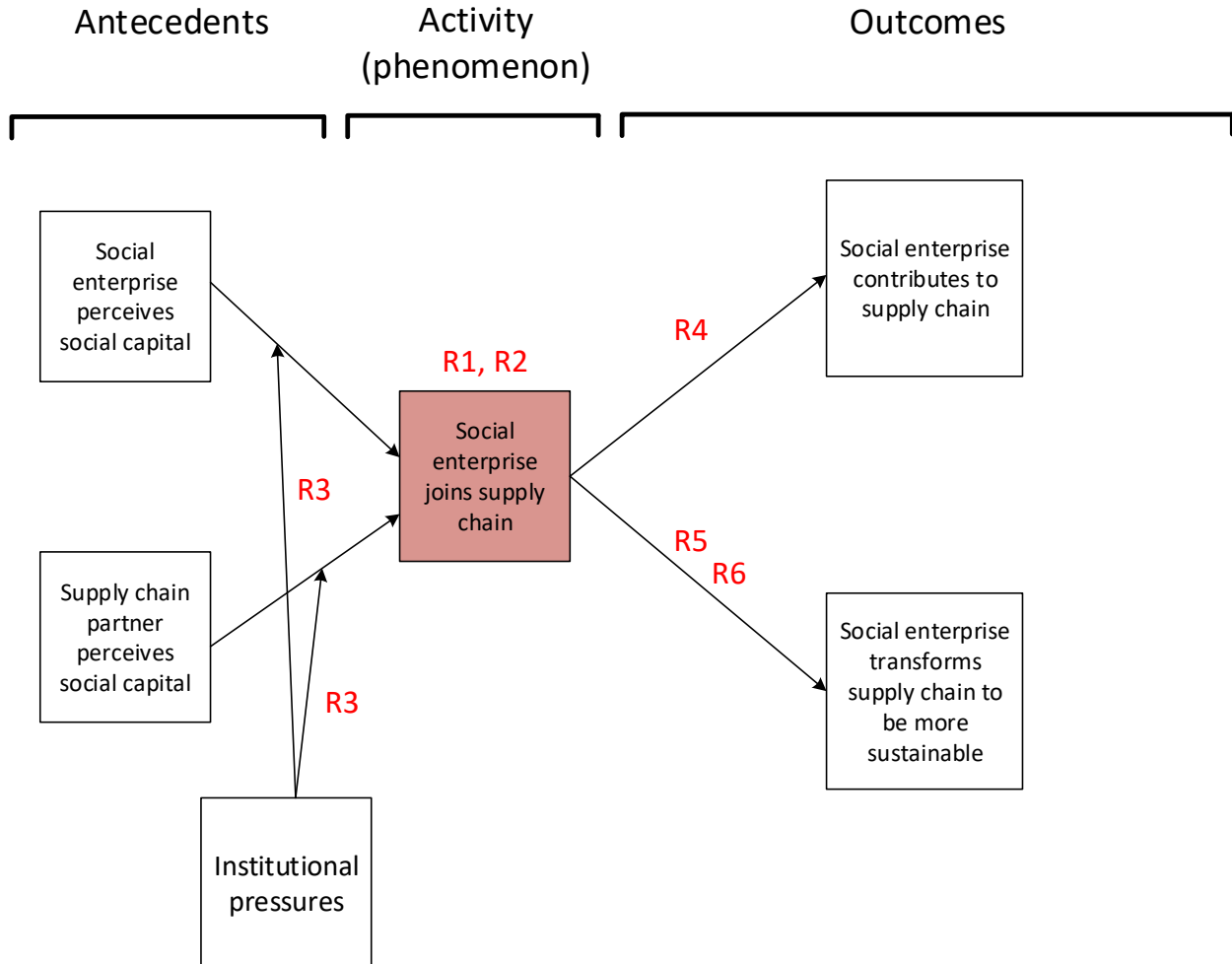
Figure 1.1.: Research Framework

Coercive pressures are typically formal regulations or laws, but can also be informal expectations within organizations (e.g., fire safety standards imposed by someone exerting power over another actor, as in a parent-subsidiary relationship). Mimetic pressures represent the tendencies of other organizations to imitate competitors and others in order to cope with uncertainty.

It is expected that institutional theory plays a role in how the perceptions of social capital lead to social enterprises entering into a supply chain partnership with non-social enterprises. For example, large firms have strong reasons to explore relationships with the rapidly growing social enterprises. As consumers increasingly expect businesses to act in a socially responsible way, companies are trying to evaluate their social impact and look to use ethical suppliers. This can be achieved through forging partnerships with social enterprises which often are capable of sufficient and impactful scaling. After developing a solution to a social problem, a social enterprise is often confronted with important choices regarding the scaling of social impact (Smith, Kistruck, and Cannatelli 2016). Dees et al. (1998) define scaling as increasing the magnitude of the social impact of the organization and focuses on the efficient growth or expansion of social impact.

The next phase of the dissertation research primarily focuses on the impact social enterprises might have on the supply chain partners. In order to grow, social enterprises must play by business rules (Hynes 2009). Thus, it is reasonable to expect that social enterprises will contribute a wide range of skills, expertise, legitimacy from a business perspective, plus, sustainability, which altogether is a contribution to the supply chain.

As the role of social enterprises in the supply chain is still underexplored, this research contributes to an increased understanding of the connections between social enterprises and supply chain partners. This research further contributes to the literature in several ways. First, the framework we propose is the first one to emphasize the role of social enterprises in changing or transforming the supply chain in order to be more sustainable. Second, the framework allows for dynamic interactions between social enterprise and the supply chain by capturing processes of change from the viewpoint of social capital and institutional theories.

By integrating two theories into the framework, we emphasize the interaction between the organization and the society in order to build resilience in organizations and society. In the following sections, we explain the characteristics of the social enterprises and supply chain. We also discuss fire safety as an alarming social problem.

These contributions are important because they help to understand how to diffuse socially sustainable solutions and practices across the supply chain. In this study and case,

similar to other social concerns, fire prevention is a critical problem within supply chains and society. Understanding the role and function of social enterprise helps diffuse these norms and practices and can help in general supply chain sustainability concerns for competitive and social reasons. The interaction between social entrepreneurial initiatives and organizations seems to be an effective way of addressing social problems and proposing sustainable solutions. We aim to explore this important issue to determine if these suppositions are accurate.

Qualitative research methods were used in this study to explore scenarios where social enterprises can contribute to supply chain sustainability.

1.2. Problem Statement and Rationale of the Study

Fire prevention is extremely important. Each fire may be regarded as a failure of a system with a potential lack of social value creation (Beard 1986). Fire prevention is a term often used by fire services and politicians. Fire prevention has many definitions and interpretations. It represents various aspects of fire safety and depends on the environment where the definition is used.

Fire safety has been a concern for millennia. But, the concern is also current. In 2017 and 2018 the world is faced with fire safety events. For example, we witnessed devastating and fatal fires such as Grenfell Tower fire in London (UK), with deaths of 79 residents. Also, the residential building fire in the Bronx (USA) with 12 casualties, and most recently the Liverpool car park fire (UK) which destroyed about 1,400 cars.

Fire prevention effectiveness refers to the degree to which fire service avoids or minimizes the incidence of fires (Coulter 1979). A ratio such as the number of incidents per 1,000 people would measure prevention effectiveness (Coulter 1979). As seen from statistics, the number of fires is steadily rising (CTIF 2018). Although the fire figures are alarming, the larger question remains: why is this happening given modern fire prevention, fire protection, and fire risk science and knowledge?

The answer may lie at the foundation and basics of fire prevention. To date, we do not have a true definition of fire prevention. With fire prevention, we are trying to stop fires from happening. As such, the Merriam Webster dictionary defines prevention as "an act of preventing or hindering something." Generally speaking, fire prevention can be defined as a system for providing citizens with activities that raise awareness of fire risks. Fire prevention is also a proactive method of reducing emergencies and the damage caused by them. It has four important goals:

- The first and most important goal is **Life Safety**, which is to prevent injury and loss of life. Human life and health always take top priority in an emergency.
- The second goal of fire prevention is to **Prevent Property Damage** and negative impact on the environment. Though second to life safety, property damage should always be considered.

- The third goal of fire prevention is the **Protection of Operations**. By preventing fires and limiting damage, we can assure that work operations will continue without interruption.
- The fourth and the final goal of **fire prevention** is to **educate** the public to take precautions to prevent potentially harmful **fires** and be educated about surviving them and to promote and implement active and passive protection measures.

Fire prevention is also loss prevention. Fire prevention initiatives are viewed as an effective means of reducing incidents of unintentional dwelling fires, fire injuries, and fire fatalities. Adequate fire prevention reduces fires and consequently, environmental, social, and economic impacts of fire. From a resources viewpoint, fire prevention initiatives are considered to be an effective and efficient utilization of fire and rescue service personnel.

There can be different fire and rescue services in fire prevention strategies. Some approaches may be based on spatial analysis of previous fire incidences, and others may be based upon analysis of causal factors associated with fires (Higgins, Taylor, and Francis 2012b).

At this time, fire departments are exposed to budget cuts (Kravetz 2017) and subsequently reduced the number of personnel. In addition to fighting fires, firefighters are helping people with opioid addictions (Gershon 2017) and health problems. Firefighters don't fight many fires these days. All this raises the question of the sufficient community risk reduction programs provided to local communities.

It is especially important given the fact that most of the fire departments worldwide rarely have a very positive attitude towards fire prevention. Asking most department leaders about their jobs, their first emphasized words will typically focus on 'after the fact' aspects such as rapid response, fire inspections, search and rescue, put out fires, public education, etc. (Avsec 2015).

Fire prevention can be costly, hard to measure, lacking significant education resources, and is in many cases is associated with responsibilities in liabilities. Usually, fire prevention counts for 1 percent (or less) of the total fire departments' operating budget (Avsec 2015).

Other important factors can influence fire risks and consequently indicates the lack of fire prevention:

- Rapid fire spread - In 2012, scientists at Underwriters Laboratories-Fire Safety Research Institute (UL-FSRI) designed a series of experiments focused on the size and geometry of modern homes as well as current furnishings and building materials. The experiments tested three modern home configurations against three so-called "legacy" configurations containing furniture UL described as being similar to furniture made in the 1950s. All of the modern rooms transitioned to "flashover"— the point at which a surface reaches its auto-ignition temperature and emits flammable gases—in less than five minutes, UL found. By contrast, the fastest legacy room took just over 29 minutes to reach flashover, and the legacy-furnished rooms took eight times longer on average to reach flashover.

- Code deregulation - Fire codes globally are facing a deregulation process (Tombs and Whyte 2013). The purpose of deregulation is to open the doors of competition to more businesses to offer consumers a great choice of various services or products. Regulations are usually designed to protect people in situations where they cannot protect themselves. For the wealthy and powerful, regulations can be a nuisance that limits their options and, potentially, their profits. To reduce the costs and support private investments, governments around the world are reducing fire safety requirements (Tombs and Whyte 2013). Under code deregulations, fire rated building cladding, means of egress, fire detection, suppression systems, and other fire safety measures are less required and controlled by the authorities.

- Fire department budget cuts - Fire departments around the world are cutting jobs and closing firehouses (Leachman et al. 2016). A fire department, like most other departments within a city or town, is a type of investment. Over the next four years, emergency fire and rescue services in the UK will face - on average - a 22 % reduction in their budgets. In the UK, since 2010, more than 10,000 firefighters have been laid off, dozens of fire stations have closed, fire engines have been scrapped, and levels of emergency rescue equipment has been slashed. In London, ten fire stations have been closed, 27 fire engines retired and more than

600 firefighter posts have been cut. Every year, response times are increasing, and 2015-2016 saw a 15% rise in fire deaths compared with the year before (Leachman et al. 2016). Fire service reductions and cuts are also seen in the U.S. National Fire Service Budget. Cities in Missouri, California, and Maryland have closed a few fire brigades.

Recently around 40 stations have been forced to close due to low staffing levels and fire engines are being left locked up because there are not enough crew-members to man them in the UK (Young 2018). Analysts worry that some of the cuts could be putting people and property in danger.

‒ Hoarding - Hoarding is a relatively new risk related to the accumulation of items in the living environment. Hoarding increases fire load; worsens the occupant evacuation and puts firefighters at risk due to obstructed exits and falling objects.

‒ Firesetting - Firesetting is a behavior that often results in legal and mental health system involvement (Hoerold and Tranah 2014). Over 62,000 arsons are committed annually in the U.S., with nearly $1 billion in losses per year (Dolan et al. 2011). Fires are often set by individuals with psychiatric and substance use problems (Dolan et al. 2011). Thus, firesetting is frequently encountered by mental health experts in consulting on legal cases. Despite the prevalence of such cases in the courts, minimal attention has been paid in the literature to conducting firesetting-related forensic evaluations.

‒ Criminal activity- High crime rates in poor neighborhoods also lead to an increased fire risk for populations living in poverty. In metropolitan neighborhoods with high crime rates, being poor carries an added risk of home invasion and associated violent crimes. This apprehension often supersedes the fear of fire by arson or other means and leads to increased security measures, such as burglar bars. In the years between 1986 and 1991, nearly 16 fire deaths annually could be attributed to these security devices (Dolan et al. 2011; Hoerold and Tranah 2014).

‒ Aging Population - The world's population is aging: virtually every country in the world is experiencing growth in the number and proportion of older persons in their population (United Nations 2015). Older people (65+) have an increased risk of fire fatality, making up 66% of all fatalities (Elder, Squires, and Busuttil 1996). People

aged 65 and older are 3.7 times as likely to be a fire fatality as the general population (Elder et al. 1996).

- Poverty – Poverty affects fire safety risks. Children from low-income families were far more likely to be killed in a residential fire than other children from more favorable economic conditions (Collins 2012). Results of the study that looked at 3,179 patients admitted to the Shriner's Hospital for Children in Galveston, Texas, from 1985 through 2001 showed children from low-income families were three times more likely to die as a result of a residential fire than non-minority children from higher-income families (Peck and Pressman 2013). Other recent studies have shown even more profound effects of poverty on fire risks (Appleton et al. 2016). A child from the lowest social class in the United Kingdom is 16 times more likely to die in a house fire than one from a wealthy family (WHO Library Cataloguing-in-Publication Data 2014).

- Overcrowding - Often, the poor are faced with economic issues that force consolidation of several incomes, often from different families, to secure adequate housing. This increased number of individuals in a household often leads to family instability, which has been noted by some researchers as the highest characteristic related to fire risk (Chen and Chen 2015; Wu, Wang, and Guo 2015). In a 1978 study conducted in Syracuse, New York, crowded living conditions that led to family instability were shown to produce four times the number of fire deaths per 1,000 populations than less crowded residences. In most instances, these fire victims were also identified as poor (Jennings 2013).

The problems listed above have existed for a long time. Socio-economic causal factors identified by previous research included: elderly individuals, disabled individuals, those living alone, smoking and alcohol consumption (Leth, Gregersen, and Sabroe 1998); Holborn, Nolan, & Golt, 2003). More recent problems include several years of ongoing changes in regulations, new building materials, and challenges to which the world is exposed today.

These problems are not independent of each other. Even worse, they are often complementary and interconnected. It seems that more emphasis needs to be made on

prevention, public education, community risk reduction, and code adoption to reduce the number and severity of fires and fire risks at all (Stittleburg 2013). Civilians are not the only target group exposed to increased fire risks. In the USA alone, more than 60 firefighters die every year in the line of duty (FEMA Report 2015).

Notably, risk factors associated with unintentional house fire incidents, injuries, and deaths in high-income countries have increased in the past five years. Fire safety is a social problem, seeking to find a systematic approach to resolve it. Clearly, there are very critical social sustainability concerns that go beyond safety and security at large and are related to poverty, age, and lower socio-economic vulnerabilities that need to be addressed through fire prevention activities and resources.

Like any other service, fire prevention has its suppliers, distributors, and beneficiaries. It should be noted that fire prevention as a service is provided free of charge and is readily available for everybody within a local community and the households. Fire prevention activities within businesses are usually the business owners' burden, including financial and legal responsibility.

From a broader perspective, there are three sectors potentially dealing with fire safety problems: the private sector, public sector, and the nonprofit sector. However, it's predominantly the public sector that deals with fire prevention. Traditionally, each of the three sectors maintains the distinct roles and approaches, with the private sector focused on profitable markets, the public sector solving market failures, and the non-profit sector engaging citizens in meeting societal needs. Since the 1990s, several trends have reduced these distinctions, increasingly blurring the social and economic roles that businesses, government agencies, and nonprofits play.

Governments are less involved and deregulating the codes, closing fire departments (Cooper 2016). The private sector is very often not aware of the vital role of fire prevention for competitiveness. The nonprofit sector is constantly faced with funding problems, and increased social problems such as crime and opioid crises, poor access to healthcare facilities, and poverty. It is evident that existing collaboration simply doesn't allow for sustainable solutions which would, at the same time capture as many beneficiaries as

possible — finding a solution to fire prevention related problems points in different directions.

Recent trends suggest rigorous control and better regulations (Kirkpatrick, Hakim, and Glanz 2017; O'Sullivan 2017). Another proposal is about delivering of fire prevention as a service and building community resilience; where social entrepreneurship is a promising solution (Morrison, Ramsey, and Bond 2017).

Businesses and society are facing an array of urgent and critical social, environmental, ethical, and economic challenges; fire safety is among them. Broad societal responses are playing out in the realms of policy, technology, and the marketplace. For all involved stakeholders, it is extremely important to take adequate and sustainable fire prevention actions.

While many companies identify the supply chain as the most difficult aspect of their business to make sustainable, it is also one of the most important (Jüttner 2005). This is largely due to the impact that a sustainable supply chain can have on the overall well-being of society and the environment. Consider the fact that sustainable supply chains are, by their very nature, less resource intensive than their counterparts. A move to greater sustainability involves a move to greater efficiency, as the two go hand in hand.

Social problems, such as fire safety are usually large-scale problems. Tackling them does not require only innovative approaches but also finding ways to size initiatives up to the scale of the problem. Solving them requires a holistic approach with the participation of stakeholders (Masri, Mohd, and Sh 2015). The sustainability of social enterprise comes down to funding. Social enterprises are doing well sustainably and making a major impact on applying social entrepreneurial business models (Sen and Bhattacharya 2001; Leung et al. 2019).

Social enterprise mission success will mainly depend on proper strategies and methods that they will apply while collaborating with partners. Social value, delivered through social entrepreneurial activities manifests itself as benefits to society in the form of work, employment, community, and personal development (Southern 2001, 265; Nicholls 2005) at the beneficiary (individual) as well as the community and corporate level of analysis.

When sufficient social value accumulates in a certain area in the form of an enhanced standard of living, a social capital is formed and community or region improves. Thus the social value generated by social entreprises can facilitate the growth and development of communities, regions, and corporations (Peredo and Chrisman 2006; Meyskens, Carsrud, and Cardozo 2010).

It is necessary to determine the role and influence of various business in supporting sustainable supply chains. The rationale for this study is the opportunity to study the relationship between social enterprises, their supply chain, and sustainability-related factors. Whether fire prevention efforts (life safety, prevent property damage, protection of operations or education) are helping supply chain partners create sufficient legitimacy in the eyes of the stakeholders is a core aspect of this study.

The study is driven by the following research questions:

1. What are the antecedents for social enterprises to join supply chains?

2. What are the antecedents for supply chain members to partner with social enterprises?

3. What roles do external institutional pressures play in the social enterprises joining supply chains?

4. Do social enterprises contribute to supply chains sustainability and bring legitimacy?

5. Can social enterprises be institutional entrepreneurs from a sustainability perspective?

6. How do social enterprises transform institutions in supply chains?

7. Are Social Capital and Institutional Theories valid theoretical lenses for understanding the influences of social enterprises in supply chains?

This research offers a novel approach to combining the role of social enterprises with supply chains to improve or build sustainability. The practical application of this study highlights the relationship between social enterprise and various members of the supply

chain from different perspectives. We have extracted and discussed factors which motivate the collaboration between social enterprises in new or existing supply chains from different stakeholder's perspective. This aspect holds an important implication for practitioners.

Social enterprises' social missions motivate collaboration between supply chain members. A core argument explaining the formation of organizational collaborations is that organizations often lack critical competencies, legitimacy, or are frequently unable to develop those on their own or in a timely fashion (Child & Faulkner, 1998, p. 851). Little research exists in migration pathways of partner value, let alone, any in-depth discussions.

Chapter 2

The purpose of this chapter is to provide background information regarding supply chain management, social entrepreneurship, social capital, and institutional theory. This chapter also presents a literature review of current and past research on social capital and institutional theory to a cross section analysis among supply chains and social entrepreneurship.

2.1. Theoretical Background

This section presents some theoretical background for the research presented in this work. To understand the research questions and the link between the supply chains and the corresponding roles of social enterprises, we have utilized two theoretical lenses: social capital theory and institutional theory.

We are seeking to understand the role of social enterprises in supporting the supply chain partners as they build legitimacy. Institutional theory and social capital theory play intertwining roles in this context. Institutional theory argues that forces exist both within the firm and the environment that encourage convergent (isomorphic) business practices. Social capital theory helps to understand the link between social networks and the bonding of people and organizations, through reciprocal relationships (Dekker and Uslaner 2003); such as those in a supply chain. According to Inkpen and Tsang (2005), networks provide firms with access to knowledge, resources, markets, or technologies resulting in a competitive advantage.

In order to bring these concepts together, we provide an overview of each before integrating them into one general framework. In sections 2.2. and 2.3. we start with a review of Sustainable Supply Chain Management and Social Entrepreneurship literature. In Sections 2.3., 2.4. and 2.5. we review and more fully define social capital theory and institutional theory.

2.2. Sustainable Supply Chain Management

In the field of research, several definitions of supply chain management (SCM) exist. Christopher (1998), New and Payne (1995), and Simchi-Levi et al. (2000) define SCM as "the integration of key business processes among a network of interdependent suppliers, manufacturers, distribution centers, and retailers in order to improve the flow of goods, services, and information from original suppliers to final customers, with the objectives of reducing system-wide costs while maintaining required service levels" (as cited in Stapleton et al., 2006, p. 108).

The Global Supply Chain Forum (GSCF) defines supply chain management as "the integration of key business processes from end user through original suppliers, that provides products, services, and information that adds value for customers and other stakeholders" (as cited in Lambert et al., 1998, p. 1).

A supply chain is a network of organizations performing various processes and activities to produce value in the form of products and services for the end customer (Christopher, 1992). SCM concerns the integrated and process-oriented approach to the design, management, and control of the supply chain, to produce value for the end customer, by both improving customer service and lowering cost (Giannoccaro and Pontrandolfo 2002). Lummus and Vokurka (1999) summarize SCM as "all the activities involved in delivering a product from raw material through to the customer, including sourcing raw materials and parts, manufacturing and assembly, warehousing and inventory tracking, order entry and order management, distribution across all channels, delivery to the customer, and the information systems necessary to monitor all of these activities" (p. 11).

In supply chains with multiple vendors, manufacturers, distributors, and retailers, whether regionally or globally dispersed, performance measurement is challenging because it is difficult to attribute performance results to one particular entity within the chain (Hervani, Helms, and Sarkis 2005). Increasingly, companies implement social and environmental standards as instruments towards corporate social responsibility (CSR) in supply chains

(Seuring and Müller 2008). This is based on the assumption that such standards increase legitimacy among stakeholders. A wide variety of standards with different requirement levels exist, and companies might tend to introduce the ones with low necessities, using them as a legitimacy front.

Essential to the success of SCM is the information exchange along the supply chain as well as fast reactions to changing claims (Mentzer et al. 2001). Relevant parties have to be integrated, creating a high level of networking, including the whole supply chain. The dual purpose of SCM is to improve the performance of an individual organization as well as that of the entire supply chain (Li et al., 2006). Recent research supports this idea, portraying SCM as a strategic level concept (Stank et al., 2005; Mentzer et al. 2001). These definitions point to using SCM to create a distinct advantage by maximizing the total value of products and services (Stank et al., 2005).

To achieve corporate sustainability within any organization, it is essential that sustainability issues are addressed throughout the organization's entire supply chain, a process referred to as sustainable supply management (Adetunji, Price, and Fleming 2008). Sustainable SCM practices include material management, green purchasing, green manufacturing, green design, reverse logistics, and green distribution/marketing (Hervani et al. (2005) and Srivastava (2007)). Supply chain management is the integration of these activities through improved supply chain relationships to achieve a sustainable competitive advantage (Seuring and Müller 2008).

A long history of fire safety advances has been shown to save lives, protect property, and minimize business interruption losses. However, in today's corporate culture, risk improvement efforts may be re-evaluated in favor of sustainability efforts, and therefore, an important part of SCM. Recent studies show that risk management measures and sustainability efforts are not mutually exclusive (Gritzo et al. 2009). In fact, current research demonstrates that, if a building is not properly designed or constructed, and fire prevention measures are not in place to withstand catastrophic fire, flood, earthquake or hurricane risks, such disasters can nullify the benefits gained from green construction (Xin and Huang 2013).

2.3.   Social Entrepreneurship and Social Enterprises

Social entrepreneurship is a process and mindset involving the innovative use and combination of resources to pursue opportunities to implement social change and address social needs (Mair and Marti 2006). Socially motivated forms of enterprises or social entreprises are organizational structures or business models that have gained attention due to the promise of alleviating social problems such as poverty, discrimination, global warming, social inequality, environmental degradation, population explosion, illiteracy, and other sustainability challenges (Estrin, Mickiewicz, and Stephan 2013; Hervieux and Voltan 2018; Muralidharan and Pathak 2018). Social enterprises have emerged as significant organizational players in market economies (Di Domenico, Haugh, and Tracey 2010).

Tight coupling between organizations with institutional environments is thought to enhance organizational survival prospects such as engaged communities, influential stakeholders, and resource providers. Recent research by Cherrier et al. (2018) pointed out the likelihood for social entrepreneurs to initiate societal change in emerging markets under conditions of institutional complexity. Social enterprises offer critical legitimacy, support, and resources (Townsend and Hart 2008). Social enterprises social missions are important factors which motivate collaboration between supply chain members and social enterprises. Social problems are usually on a large scale (Weick 1984), therefore tackling problems such as poverty, hunger, education, safety, etc. not require only innovative approaches but also unique ways to size initiatives up to the scale of the problem (Masri, et al. 2015).

Although there is no consensus among academics, a key distinction of social entrepreneurship that can be found in all definitions is its fundamental purpose of creating social value rather than personal wealth (Zadek and Thake 1997). Their solutions are across social innovations rather than "economic" innovations (Kramer 2005, Austin et al. 2006, Leadbeater 2007), to address social problems rather than individual needs (Harding 2006, Westall and Chalkley 2007). In line with this view, several scholars have

also sought to define the social entrepreneur (Thompson et al. 2000, Thompson 2002, Dees 2001, Johnson 2003, Bornstein 2004, Sharir and Lerner 2006, Shaw and Carter 2007). For example, Thompson (2002, p. 413) notes that social entrepreneurs are people with the qualities and behaviors we associate with business entrepreneurs, but who operate in the community and are more concerned with caring and helping than with making money. Shaw and Carter (2007, p. 419) define them as those individuals who establish enterprises primarily to meet social objectives rather than to generate personal financial profit. Authors such as Drucker (1999) and Leadbeater (1997) emphasize their creativity in developing social innovations and change for improving the social context in which the entrepreneurs operate.

The term social entrepreneurship covers a range of societal trends, organizational forms and structures, and individual initiatives (Roper and Cheney 2005). It has been broadly conceptualized as projects that reflect two key elements: an overarching social mission and entrepreneurial creativity (Nicholls, 2006; Peredo and McLean 2006). Much of the research on social entrepreneurship to date has focused on defining and describing phenomenon – social enterprises (Mair & Marti, 2006).

The contrast between social entrepreneurship and commercial entrepreneurship constitutes an appropriate starting point to consider more concrete organizational features of the strategies and actions preferred by social entrepreneurs as opposed to their profit only oriented peers. If the latter drive their ventures through for-profit enterprises, we are confronted with the question: what kind of organization is most suitable for promoting social entrepreneurs' goals?

Santos (2012, p. 345–346) suggests: ''social entrepreneurship is not specifically about creating market mechanisms or securing government subsidies or creating a social enterprise, it is about crafting effective and sustainable solutions using whatever combination of institutional means is deemed effective.'' It seems that with its missions and purposes, social entrepreneurship is sustainable by design (Zhang et al. 2014). This is indeed compatible with the view of social entrepreneurship as an umbrella concept with plenty of room for different sorts of initiative tackling social problems (Agafonow 2013).

Early definitions of the field suggest that social entrepreneurs play the role of change agents in the social sector by adopting a mission to create and sustain social value, not just private value (Dees 1998). The assumption of the social entrepreneur being an agent of change is nothing new. Entrepreneurs can bring social and cultural changes. Social and cultural shifts occur via interaction in the market setting as well as in non-market settings characterized by the absence of a price structure and the profit and loss mechanism (Boettke and Coyne 2004).

Social entrepreneurship is a process in which resources are combined in new ways to explore and exploit opportunities for value creation by meeting social needs, stimulating social change, or creating new socially aware organizations (Mair & Marti, 2006). Social enterprises refer to organizations that pursue innovation with a social objective, which can include for-profit, nonprofit, or hybrid forms of organizing (Austin, Stevenson, & Wei-Skillern, 2006).

Research in social entrepreneurship has emphasized social value creation over strict economic value creation as a key distinguishing factor of social enterprises from other types of entrepreneurial ventures (e.g., Chell, 2007; Peredo & McLean, 2006; Sawhill & Williamson, 2001; Weerawardena & Mort, 2006). Thus, social enterprises may be differentiated from other entrepreneurial ventures by their focus on addressing social problems rather than on market growth or profitability (e.g., Austin et al.; Shaw & Carter, 2007).

For this research, we have applied Zahra's (Zahra et al. 2009) definition of social entrepreneurship. Accordingly, "social entrepreneurship encompasses the activities and processes undertaken to discover, define, and exploit opportunities to enhance social wealth by creating new ventures or innovatively managing existing organizations" (Zahra et al. 2009).

Social entrepreneurship may include organizations developing a fire prevention plan. In the leveraged non-profit venture, the entrepreneur uses external partners for financial support in providing a public good. Alternatively, the hybrid non-profit venture recovers a portion of its costs through sales of its goods or services. It is a general rule that the social enterprises generate profits, but rather than return those profits to shareholders, like

commercial ventures, it reinvests those profits to further the social enterprise and the resulting social benefits. Most of social enterprises make limited profits.

Social enterprises may manifest a utilitarian identity as they seek to minimize cost (Meznar, Chrisman, and Carroll 1990; Germak and Robinson 2014) and increase revenues through philanthropic donations, earned income, and for-profit activities that serve a social purpose (e.g., Haugh, 2007; Peredo and McLean 2006; Thompson and Doherty 2006). Indeed, all of the manifestations above of a utilitarian identity are congruent with one prominent conceptual social entrepreneurial model in which innovativeness, proactiveness, and risk management are key factors in social value creation (Weerawardena and Sullivan-mort 2001). This process suggests that an entrepreneurial posture or approach to doing business may thus reflect a utilitarian identity in all types of ventures, including social enterprises.

For this research, the following criteria were applied to determine the identity of social enterprises:

1. Social enterprises encompass the activities and processes undertaken to discover, define, and exploit opportunities to enhance social wealth by creating new ventures or innovatively managing existing organizations (Zahra et al. 2009);

2. Social enterprises refer to organizations who pursue innovation with a social objective, including for-profit, non-profit, or hybrid forms of organizing (Austin, Stevenson, & Wei-Skillern, 2006);

3. Social enterprises differ from other entrepreneurial ventures by their focus on addressing social problems rather than on market growth or profitability (Austin, Stevenson, and Wei-Skillern 2006);

4. Social enterprises manifest utilitarian identities as they seek to minimize cost (Luke, Kearins, and Verreynne 2011) and increase revenues through philanthropic donations, earned income, and for-profit activities which serve social purposes (e.g., Peredo and McLean 2006; Thompson and Doherty 2006; Haugh 2007);

5. Innovativeness, proactiveness, and risk management are key factors in social value creation (Weerawardena and Sullivan-mort 2001). This suggests that an

entrepreneurial posture or approach to conducting business may thus reflect a utilitarian identity in all types of ventures, including social enterprises.

For the time of our research, there were no more than ten to fifteen social enterprises worldwide with a focus and main mission around fire prevention. Since social entrepreneurship is receiving more attention within the private and public sector, it is reasonable to assume that we will see an increased number of social entrepreneurial solutions targeting fire safety risks reduction through fire prevention measures.

As shown, social enterprises can be change agents. Our notion of social and cultural change involves shifting the formal and informal institutions which are currently focal. Social change can occur on many different margins from minor changes within a set of political, economic, and social institutions to major shifts involving members of supply chains.

The introduction of health care, better children fire prevention programs, higher safety standards, and education would be examples of minor changes. Revolutions which overthrow political regimes and institutions would be an example of the major changes. Across all margins of potential change, we contend that social change involves both an act of creation and one of convergence (Boettke and Coyne 2004). In other words, the process of change entails not just creating a new focal point but also developing common knowledge to make it important on a larger scale through an extended network.

According to some scholars (Boettke and Coyne 2004), social change must involve, at a minimum, an understanding of the already established change agents: social entrepreneurs.

2.4. Social Capital and Social Capital Theory

The theory of social capital has gained increasing attention and shifted its focus from sociology to economics. This shift had, as a consequence, many more policymakers and

scholars who found interest in the theory and the value created by it. Social capital theory (Lin 2001) helps provide context. It suggests that relationship networks determine the extent to which a person will succeed professionally. These networks determine access to information, provide an influential gateway, and change within an organization (Lin 2001).

The claim that social capital plays a role in determining actual and perceived health is commonly accepted in public health studies (Kawachi et al. 1997; Kawachi et al. 1999; Kim et al. 2006; Borgonovi 2008). This has recently attracted the attention of economists and economics journals (Brown et al. 2006; Folland 2007; Petrou and Kupek 2008; Scheffler and Brown 2008; D'Hombres et al. 2010; Ronconi et al. 2010). On the same basis, we can assume that the elements of social capital will act positively on fire prevention awareness.

As a result of the vast literature in the social capital scientific field, this chapter narrowed its focus to authors who focused their study on empowerment, participation, and institutional change through social capital. Empowerment and participation are mostly based on the concept of an agent of change as detailed by Amartya Sen (Amartya 1981) in institutional change based primarily on the research of institutional economists, particularly that of Douglas North (North 1990).

The roots of the concept of social capital have been traced back to the works of Durkheim and Marx— even Aristotle (Carroll and Stanfield 2003, p. 397) and Hanifan (1916). Hanifan (1916, p. 130) Hanifan (1916:130) invoked the concept of social capital, describing it as those tangible substances [that] count most for people: good will, fellowship, sympathy, and social events among the individuals and families who make up a social unit. Interactions between neighbors create an accumulation of social capital, which may immediately satisfy social needs and which may bear a social potentiality sufficient to the substantial improvement of living conditions in the whole community.

North's (1990) writings on informal and formal institutions, Fukuyama's work on the role of trust in the economy, and Evans' (1995) writings on the nature of the state – society relations are other intellectual predecessors of the concept. The contemporary use of the term is, however, most often attributed to Bourdieu (1986), Coleman (1988) and Putnam

(1993, 2000). The World Bank has been one of the most prominent advocates of the social capital approach over the past few years (Lehtonen 2004).

In their recent study, Shiell et al. (2018) emphasized the importance of social capital on public health. They cover a wide range of topics relating social capital to physical health, mental health, the health of children, adolescents, working age people, and the elderly in low, middle, and high-income countries with health inequalities and health care access. According to Shiell et al. (2018) findings, the presence of social capital significantly improves public health.

The social capital issue is related to the creation of competitive advantages for companies, starting with the assumption that economic variables are not adequate for social development or for building a sustainable environment. Also, social capital has become a competitive resource since it can enhance the individual and collective capacity based on collaborative practices. Also, it may become a source of improvement or maintenance of the competitiveness in organizations.

The term social capital was originally used to describe the relational resources, embedded in cross-cutting personal ties that are useful for the development of individuals in community social organizations (Jacobs 1961 and Loury 1976). Recent research has applied a social capital concept to a broader range of social phenomena, including relations inside and outside the family (Coleman 1988), relations within and beyond the firm (Burt 1992), the organization-market interface (Baker 1990), and public life in contemporary societies (Putnam 1995).

There is no consensus agreement on the concept of social capital. It is determined by context and assumptions regarding human behavior. For example, rational choice theorist, Coleman's (1988) focus is on instrumental functions of social capital that enhance returns. In economics, Ben-Porath (1980) has developed ideas concerning the functioning of what he calls the "F-connection" in exchange systems. The F-connection is families, friends, and firms, and Ben-Porath, drawing on literature in anthropology and sociology as well as economics, shows the way these forms of social organization – social capital affect economic exchange.

Social capital is broadly described by researchers as actual and potential assets embedded in relationships among individuals, communities, networks, and societies (Dhesi 2000; Mair and Marti 2006; Weber, Wallace, and Tuschke 2013).

By investing moral and material resources in a community, social entrepreneurs revitalize the community by augmenting its social capital. The concept of social capital parallels other concepts of action. It represents assets just as other forms of capital do. All forms of capital are essential for development. Given certain conditions, social capital can be considered as an enabling resource that improves the effectiveness of other inputs in development. However, in the absence of those conditions, social capital may hinder development (Dhesi, 2000). During the 2008–2009 financial crisis, firms with high social capital, as measured by corporate social responsibility (CSR) intensity, had stock returns that were four to seven percentage points higher than firms with low social capital (Lins, Servaes, and Tamayo 2017).

Social capital is inherently social. Most forms of social capital come into being through the combined actions of several or many people. Social capital can be considered to be an accumulation of various types of intangible social, psychological, cultural, institutional, and related assets that influence cooperative behavior (Uphoff, 1999). According to Uphoff, assets are concepts that yield streams of benefit that make future productive processes more efficient, more effective, more innovative, or simply expanded.

Social capital building can be a successful measure to promote prevention. Prevention, for example, had a significant effect on the reduction of street crime in Japan (Matsukawa and Tatsuki 2018) where they studied the relationship between social capital and community safety and security in the context of Kobe over a period spanning more than ten years. The empirical results indicated that the high levels of social capital translate into lower levels of crime. The building of fire prevention social capital between organizations and their communities may help to improve fire reduction efforts. In line with this view, Putnam (1995) shows that higher social capital societies, in which trust is greater, display higher economic development (see also Fukuyama (1995), La Porta et al. (1997), and Knack and Keefer (1997)).

Some other positive influences of social capital are:

- In Italy, social capital plays an important role in the degree of financial development across different parts of Italy. Social capital seems to be most significant when education levels are low, and law enforcement is weak (Guiso 2004).

- Firm-specific social capital, built up through CSR activities, pays off during a period when the importance of trust increases unexpectedly, as in the 2008–2009 US financial crisis. Scholars (for example Lins, et al. 2017) found that firms with high CSR ratings outperformed firms with low CSR ratings during the crisis by at least four percentage points, after controlling for a variety of firm characteristics and risk factors.

- Like other forms of capital, social capital is productive, making possible the achievement of certain ends that would be otherwise impossible (Coleman 1988).

- The US has demonstrated that elements of social capital (trust, reciprocity, and membership in voluntary organizations) explain a significant proportion of life expectancy, infant mortality rate, heart disease, violent crime and, personal health (Kiwachi and Subramanian 2008).

Also, in organization studies, the concept of social capital is gaining currency. It proves to be a powerful factor explaining the relative success in some arenas of central concern to organizational researchers:

- Social capital influences career success (Burt, 1992; Gabbay & Zuckerman, 1998; Podolny & Baron, 1997) and executive compensation (Belliveau, et al., 1996; Burt, 1997a).

- Social capital helps workers find jobs (Granovetter, 1973, 1995; Lin & Dumin, 1996; Lin, Ensel, & Vaughn, 1981) and creates a richer pool of recruits for firms (Fernandez, Castilla, & Moore, 2000).

- Social capital facilitates interunit resource exchange and product innovation (Gabbay & Zuckerman, 1998; Hansen, 1998; Tsai & Ghoshal, 1998), the creation of intellectual capital (Hargadon & Sutton, 1997; Nahapiet & Ghoshal, 1998), and cross-functional team effectiveness (Rosenthal, 1996).

- Social capital reduces turnover rates (Krack-hardt & Hanson, 1993) and organizational dissolution rates (Pennings, et al. 1998). It facilitates

- entrepreneurship (Chong & Gibbons, 1997) and the formation of start-up companies (Walker, et al., 1997).

- Social capital strengthens supplier relations (Asanuma, 1985; Baker, 1990; Dore, 1983; Gerlach, 1992; Helper, 1990; Smitka, 1991; Uzzi, 1997), regional production networks (Romo & Schwartz, 1995), and inter-firm learning (Kraatz, 1998; see also special issue of the *Strategic Management Journal*, 21[3], 2000).

- Social capital is used by refugee-entrepreneurs to maximize the pool of opportunities in their host nations (Bizri 2017).

- The structural aspect of social capital refers to the connections among actors — with whom and with what frequency they share information (Al-Tabbaa, Leach, and March 2014)

Social capital literature is divided on the question of the causes and origins of social capital. On the one side are scholars who argue that variations in the amount and type of social capital can be explained primarily by society-centered approaches (Fukuyama 1999; Putnam 2000). The prevalence of institutional development on social capital is strong, for the former has a catalytic role in enabling social capital to raise efficiency (Durlauf and Fafchamps 2004, p. 14).

The concept of social capital has been increasingly prominent in recent accounts of the economy and society, particularly those that seek to show the role of trust and community in countering the effects of market values on contemporary restructuring. Even though social capital is a sociological concept, this research has applied the concept of social capital to supply chain management content and social entrepreneurship discourse. We examined the influence of social capital on supply chains. Social capital has evolved over several years (Putnam 1995; Lin, Cook, and Burt 2008). The term is associated with social connectedness and civil society (Adam and Rončević 2003). The concept expresses the social relationships between people, organizations, and communities that facilitate beneficial outcomes (Szreter 2000).

Regardless of the fact that social capital has been talked about for a long time, there are many definitions and explanations of social capital. In the table below, the most commonly used definitions are shown in chronological order (see Table 2.1.).

Table 2.1.: Definitions of Social Capital

Source	Definition
Hanifan, *1916*	Social capital are those tangible substances [that] count for most in the daily lives of people: namely good will, fellowship, sympathy, and social intercourse among the individuals and families.
Jacobs, *1961* and Loury, *1976*	The term social capital was originally used to describe the relational resources, embedded in cross-cutting personal ties, that are useful for the development of individuals in community social organizations.
Yoram Ben-Porath, **1980**	The author has developed ideas concerning the functioning of what he calls the "F-connection" in exchange systems. The F-connection is families, friends, and firms, and Ben-Porath, drawing on literature in anthropology and sociology as well as economics, shows the way these forms of social organization – social capital affect economic exchange.
Coleman, *1988*	Social capital broadly refers to the resources accumulated through the relationships among people and organizations. Social capital enhances returns.
Bourdieu and Wacquant, *1992*	Authors define social capital as "the sum of the resources, actual or virtual, that accrue for individuals or groups by possessing a durable network of institutionalized relationships of mutual acquaintance and recognition."
Putnam, *1995*	Social capital is created by a network of strongly interconnected elements.
Onyx and Bullen, *1998*	Authors discuss social capital in terms of participation in networks, reciprocity, trust, social norms, the commons, and social agency.
Uphoff, *1999*	Social capital can be considered an accumulation of various types of intangible social, psychological, cultural, institutional, and related assets that influence cooperative behavior.
Chang and Zhu, *2012*	Perceived social capital is the degree to which an individual or organization believe in their ability to access informational and social support from connections with others.
Dhesi 2000; Sweet, *2017*	Social capital can be considered an enabling resource that improves the effectiveness of other inputs in development.

Social capital can be considered as an accumulation of various types of intangible social, psychological, cultural, institutional, and related assets that influence cooperative behavior (Uphoff, 1999). Social capital theory can be explained in terms of the various components of the theory. However, as mentioned above, social capital has many dimensions, and theorists and researchers from different disciplines tend to emphasize particular dimensions when defining social capital. Social capital is created by a network of strongly interconnected elements (Putnam 1995).

To understand social capital complexity and scale, different applications and roles of Social Capital are summarized in the table below (see Table 2.2.).

Table 2.2.: Social Capital Applications

Source	Role of Social Capital
Sen, *1987*	Author used the concept of 'social capital' for addressing the social dimension of sustainable development.
Burt, *1992*; Gabbay & Zuckerman, *1998*; Podolny & Baron, *1997*	Social capital influences career success.
Krack-hardt & Hanson, *1993*	Social capital reduces turnover rates.
Putnam, *1993*	Social capital might influence the performance of government and explained the economic success of a northern Italian region relative to the southern Italian area.
Putnam, *1995*	Civic engagement and social connectedness are practical preconditions for better schools, safer streets, faster economic growth, more effective government, and even healthier and longer lives.
Granovetter, *1995*; Lin & Dumin, *1996*; Lin, Ensel, & Vaughn, *1981*	Social capital helps workers find jobs.
Putnam, *1995*, Fukuyama, *1995*, La Porta et al., *1997*, and Knack and Keefer, *1997*	Higher social capital societies, in which trust is greater, display higher economic development.
Rosenthal, *1996*	Social capital facilitates cross-functional team effectiveness.
Kawachi et al. *1997*; Kawachi et al. *1999*; Kim et al. 2006; Borgonovi, *2008*	Social capital plays a role in determining actual and perceived health.
Chong & Gibbons, *1997*; Walker, Kogut, & Shan, *1997*	Social capital facilitates entrepreneurship and the formation of start-up companies.
Hargadon & Sutton, *1997*; Nahapiet & Ghoshal, *1998*	Social capital facilitates the creation of intellectual capital and cross-functional team effectiveness.
Gabbay & Zuckerman, *1998*; Hansen, *1998*; Tsai & Ghoshal, *1998*	Social capital facilitates inter-unit resource exchange and product innovation from the creation of intellectual capital.
Krishna and Uphoff, *1999*	Economic development, community peace, and democratic participation can be promoted in this

	manner, simply by investing in the stocks of social capital.
Fernandez, Castilla, & Moore, *2000*	Social capital creates a richer pool of recruits for firms.
Dhesi, *2000*	Absence of social capital may hinder development.
Pantoja, *2000*	The potential contribution of social capital, or in simple terms civic engagement and social connectedness, to development appears to be immense, as corroborated by rapidly growing empirical knowledge
Dekker and Uslaner, *2003*	Social capital theory helps to understand the link between social networks and the bonding of people and organizations, through reciprocal relationships.
Guiso, *2004*	Social capital plays an important role in the degree of financial development across different parts of Italy. Social capital seems to be most significant when education levels are low, and law enforcement is weak.
Bhuiyan and Evers, *2005*	Social capital represents a propensity for mutually beneficial collective action, which in turn derives from the quality of relationships among people within a particular group or community.
Bhuiyan and Evers, *2005*	Communities with a high level of social capital produce superior outcomes in joint actions. Communities with low social capital can be assisted to build up stocks of this resource so that their performance will also improve over time.
Rothstein and Stolle, *2008*	Authors have shown the effects that social capital has on institutions.
Kiwachi and Subramanian, *2008*	Elements of social capital (trust, reciprocity, and membership of voluntary organizations) link a significant correlation with life expectancy, infant mortality rate, heart disease, violent crime, and self-related health.
Ellison, Steinfield & Lampe, *2011*	Number of actual friends on social media (but not the number of total friends) predicts social capital, they may be useful resources for providing individuals with a window into a diverse set of perspectives and information.
Lins, Servaes, and Tamayo, *2017*	Firm-specific social capital, built up through CSR activities, pays off during a period when the importance of trust increases unexpectedly, namely the 2008–2009 financial crisis.
Shiell et al., *2018*	Authors emphasized the importance of social capital on public health.
Matsukawa and Tatsuki, *2018*	Social capital building can be a successful measure to promote prevention.

For this research, we are going to use three dimensions of social capital (Nahapiet and Ghoshal 1998). These dimensions are conceptual distinctions that are useful for analytic

convenience, but in practice, social capital involves complex interrelations between the three dimensions. Social capital theory has argued for three dimensions:

- structural,
- cognitive, and
- relational social capital (Nahapiet and Ghoshal 1998).

This social capital theory constructs forms the most widely used and accepted framework for understanding and studying social capital. Structural social capital refers to the presence of a network of access to people and resources, while relational and cognitive social capital relates to the capability for resource exchange (Andrews 2010). Cognitive and relational social capital may seem similar however cognitive relates to the subjective interpretations of shared understandings whereas relational includes feelings of trust that are shared by the many members within the social context (group, organization, community). It is this theoretical perspective, due to its popular, well-tested, logical, and clear constructs, that we use in this study.

Scholars have recognized the important role of social enterprises in promoting social capital. According to Praszkier at al. (2009) social enterprises are highly effective in achieving lasting and substantial change through building social capital. Estrin at al. propose that the country prevalence rate of social entrepreneurship is an indicator of constructible nation-level social capital and enhances the likelihood of individual commercial entry (Estrin, Mickiewicz, and Stephan 2013). The characterization and assessment of the social capital of a member in supply chains seem to be important elements to help to promote sustainability and performance of supply chains.

As suggested by Avery and Swafford (2009) in one of the few articles linking social capital to supply chains, social capital can be an important component of the successful performance of a service supply chain as a source of both physical and informational resources. According to some scholars (Avery and Swafford 2009), social capital in supply chains has the potential to be a valuable and interesting stream of research. However, models for measuring social capital are lacking (Abreu and Camarinha-Matos 2010).

Research examples of social capital relations with supply chains and social enterprises are given in the table below (see Table 2.3.).

Table 2.3.: Social Capital and Supply Chains/Social Entrepreneurship

Source	Role of Social Capital
Asanuma, *1985*; Baker, *1990*; Dore, *1983*; Gerlach, *1992*; Helper, *1990*; Smitka, *1991*; Uzzi, *1997*	Social capital strengthens supplier relations.
Romo & Schwartz, *1995*	Social capital strengthens regional production networks.
Kilpatrick, Bell, and Falk, *1999*; Porter and Kramer, *2011*	Social capital contributes to the quality of supply chain interactions by reconceiving the intersection between society and corporate performance.
Kerlin, *2006*; Osborne et al., *2006*	Social entrepreneurs strengthen social capital in the supply chain.
Praszkier at al., *2009*	Social enterprises are highly effective in achieving lasting and substantial change through building social capital.
Avery and Swafford, *2009*	Social capital is an important component of the successful performance of a service supply chain as a source of both physical and informational resources.

In this research, the role of social enterprises in delivering social capital across supply chains was examined through three detailed fire prevention focused case studies. In all three cases, social enterprises partner with various stakeholders (and supply chain partners) from government, commercial, and nongovernmental organizations. Each social enterprise was led by social entrepreneurs.

While many studies have demonstrated the positive impacts of social capital on economic outcomes, Portes (1998), Krishna and Uphoff (1999) found negative effects of social capital. That is, enterprises with rich social capital do not always achieve good performance (Zhang 2006). Social capital has various forms, such as bonding social capital, bridging social capital, and linking social capital. Following that, the net effect of social capital to be positive or negative depends on the balance of various forms of social capital (Woolcock and Narayan 2000; Zhang 2006).

Each of the social capital dimensions for the construct used in this study -- structural, cognitive and relational – is briefly defined below.

2.4.1. Structural Social Capital

Structural social capital is a dimension of social capital that relates to the properties of the social system and of the network of relations as a whole (Nahapiet and Ghoshal 1998). The term describes the impersonal configuration of linkages between people or units. It is the configuration and pattern of connections between people and includes the roles, rules, precedents, and procedures that are expressions of this configuration. Structural social capital is tangible and can be more easily observed than the other dimensions of social capital. Structural social capital constructs are (Nahapiet and Ghoshal 1998): social structure, network ties, and configuration, roles, rules, accountability of leaders, transparent decision-making process, and procedures.

2.4.2. Cognitive Social Capital

Cognitive social capital is a dimension that relates to resources providing shared representations, interpretations, and systems of meaning among parties. Cognitive social capital includes shared norms, values, attitudes, and beliefs and predisposes people towards mutually beneficial collective action (Nahapiet and Ghoshal 1998). Cognitive social capital constructs are shared understandings, shared language, codes and narratives, shared values, attitudes, trust, beliefs, solidarity, and reciprocity.

2.4.3. Relational Social Capital

The relational dimension of social capital relates to the personal relationships people have developed with each other through a history of interactions, and the nature of these relationships. It is the assets created or leveraged through relationships. The relational component of social capital covers parameters influencing relationships, such as trust,

norm, and values, obligations, expectation, and identity. These elements influence what will flow over social relationships. Relational social capital constructs are (Nahapiet and Ghoshal 1998): nature and quality of the relationship, trust, and trustworthiness, norms and sanctions, obligations and expectations, identity, and identification.

2.5. Institutional Theory

Institutional theory is traditionally concerned with how various groups and organizations better secure their positions and legitimacy by conforming to the rules and norms of the institutional environment (Meyer & Rowan, 1991; Scott, 2007). The term "institution" broadly refers to the formal rule sets (North, 1990), ex-ante agreements (Bonchek & Shepsle, 1996), less formal shared interaction sequences (Jepperson, 1991), and taken for-granted assumptions (Meyer & Rowan) that organizations and individuals are expected to follow.

These are derived from rules such as regulatory structures, governmental agencies, laws, courts, professions, and scripts and other societal and cultural practices that exert conformance pressures (DiMaggio & Powell, 1983, 1991). These institutions create expectations that determine appropriate actions for organizations (Meyer & Rowan) and also form the logic by which laws, rules, and taken-for-granted behavioral expectations appear natural and abiding (Zucker, 1977). Institutions define, therefore, what is appropriate in an objective sense, and thus render other actions unacceptable or even beyond consideration (DiMaggio & Powell, 1991).

The roots of institutional theory can be found in political science studies (Dimaggio and Powell 1983). This area of study has experienced a shift of attention from the old institutionalism to the new institutionalism, which was promoted post World War II. While the focus of old institutionalism is on behaviorism (merely concerned with the behavior of the elite or top management) and rational choice, the new institutionalism takes an open system perspective (Scott, 2003; Peters, 2005).

There are two main variants to the institutional arguments utilized within supply chain management research (Ketokivi and Schroeder, 2004). First, the economic variant drawing from the work of, e.g., Haunschild and Miner (1997), plus the sociological argument drawing from DiMaggio and Powell (1983). Under the sociological argument, mimickers are primarily motivated by attempts at legitimacy whereas under the economic

one mimickers are economically motivated, seeking efficiency (Ketokivi and Schroeder, 2004).

As early as 1991, Oliver, in a widely quoted and influential article, has argued that "institutional theory has tended to de-emphasize both the ability of organizations to dominate or defy external demands and the usefulness to organizations of pursuing these types of strategies" (Baum and Oliver 2016, p. 150)

Institutional theory focuses on the pursuit of legitimacy in the eyes of important societal stakeholders and accentuates the significance of the institutional environment (Grewal and Dhawadkar 2002). This perspective is different from many previous studies based on economic fitness, which emphasizes the competition for scarce resources and underscores the importance of the task environment.

Legitimacy can be comprehended in different ways. Legitimacy can be defined inclusively as a "generalized perception or assumption that the actions of an entity are desirable, proper, or appropriate within some socially constructed system of norms, values, beliefs, and definitions" (Suchman 1995 p. 574). This definition is based on the degree to which a particular legitimacy subject, such as an organization or organizational practice, gains collective approval that is created subjectively in processes of social construction; in that sense, legitimacy is understood as a "social judgement" (Bitektine 2011).

In the context of organizations, legitimacy plays a pivotal role. More precisely, legitimacy is essential to their survival, considering that a lack of legitimacy may lead important constituents and resource holders to withhold material and/or ideational support (Aldrich & Fiol, 1994). In a similar context, institutional theorists regard the quest for legitimacy as the driving force that motivates organizations to adopt formal policies (Meyer & Rowan, 1977), such as fire prevention.

It is evident that examining the antecedents, processes, and consequences of legitimacy are pivotal to thoroughly understanding determinants of organizational growth and endurance. For that reason, legitimacy occupies a prominent position in institutional thought (Deephouse & Suchman, 2008).

A foundational element of institutional theory is that organizations become homogeneous as a function of isomorphism over time. According to institutional theory, drivers of sustainable supply management can be categorized as coercive drivers, normative drivers, and mimetic drivers (Dimaggio and Powell 1983; Zhu and Sarkis 2007).

Institutional theory has been examined in a number of managerial settings (Lawrence et al., 2011; Tolbert et al., 2011), but warrants much greater attention in the supply chain field (Das et al., 2006; Ketchen and Hult, 2007; Rogers et al., 2007; Liu et al., 2010). For some companies, green supply chain management may be a response to a specific institutional pressure, which changes and develops over time (Carbone and Moatti, 2011).

Indeed, institutional pressures, including regulation and societal expectations, have been instrumental in shaping the green supply chain management agenda (Sarkis et al., 2011). Also, there is significant evidence to suggest (see Sarkis et al., 2011) that firms mimic the green supply chain management strategies of other firms, which they perceive as being successful (e.g., Aerts et al., 2006; Christmann and Taylor, 2001). As such, it is argued that institutional pressure is by far, the strongest driver of broader social and environmental supply chain strategies, irrespective of industry (Tate et al., 2010).

We shall briefly review each of the major isomorphic pressure categories that form the basis of the institutional theory constructs.

2.5.1. Coercive Pressures

Coercive pressures represent the formal or official institutions of laws and regulations. Coercive isomorphism is a consequence of an organization experiencing institutionalized pressure from another organization or entity to which they are dependent on, to act in a certain manner (Dimaggio and Powell 1983). These coercive pressures are evident when powerful organizations force organizations with less power to act in compliance with certain actions and behaviors to receive legitimacy, and its subsequent benefits (Edwards and Mason 2009).

Oliver (1991) defines compliance to coercive pressures as conscious obedience to the incorporation of values, norms, or institutional requirements. Benefits for organizations

who act in compliance with these regulations can include increased resources, legitimacy, and the attainment of accreditation and sanctioning.

Coercive pressure is often found in institutionalized environments where governments, professional bodies, and credential associations set specific rules and standards that organizations must act to receive benefits. Occasionally, coercive pressures may be present as a result of a government mandate that organizations are required to employ (Dimaggio and Powell 1983).

Consistent with the work of Freeman (1984) coercive institutional pressure often comes from (down-stream) customers (Vachon and Klassen, 2006). Specifically, downstream customers' requirements may stipulate that firms extend environmental practices down their supply chain, and the contract between the firm and the downstream customer could be contingent upon the fulfillment of such requirements. In these cases, where firms are responding to downstream demands, they may simply pass on any environmental requirements to their suppliers through a coercive mechanism. By doing so, they avoid potentially heavy investments in implementing cooperative GSCM practices. This is consistent with existing work, which suggests that coercive approaches to GSCM are more strongly linked to formal management systems (Vachon and Klassen, 2008), which include environmental prerequisites for suppliers, along with the selection and auditing of suppliers on their environmental standards.

2.5.2. Mimetic Pressures

Organizations incline to model themselves on other organizations within their environments in which they deem to be successful and legitimate. This isomorphic inclination is defined as a result of mimetic pressure. DiMaggio and Powell (1983) determine that mimetic isomorphism is a result of uncertain environments and unclear organizational objectives. The mimetic sources of pressures are contributed to where it is significant for organizations to consider associations and cultures.

Their purpose is to acquire legitimacy, and it is not guaranteed to be accepted by the community. According to Hoffman (1999), institutional theory deals with how

organizations are affected by external and internal forces which occur beyond their control. This is among the important forces that direct our research in using institutional theory.

Uncertainty is identified as a powerful force which encourages organizations to mimic other similar organizations within their environments in situations where goals are ambiguous when new technologies and advancements are poorly understood. When the environment creates uncertainty, organizations may mimic other organizations (Dimaggio and Powell 1983).

A series of papers by Zhu and Sarkis et al. (2012, 2011, 2008, 2007) and Fahimnia et al. (2015), examined the role of mimetic pressure on GSCM performance, for example. Their work suggests that institutional pressures play a significant role in shaping GSCM practices, but that mimetic pressure has limited direct effect on GSCM.

More recent work has used a lagged variable to capture the environmental management activities of rivals, thus enabling a temporal ordering, to assess the focal firm's environmental activities. The empirical results from this work reveal a significant relationship between environmental activities of rivals (lagged), and the focal firm's current environmental management activities (Hofer et al., 2012).

2.5.3. Normative Pressures

The final pressure identified by DiMaggio and Powell (1983) as causing isomorphism is normative pressure. Normative pressure refers to the pressure that stems from professionalization. This is interpreted as the collective struggle of people who hold occupations to define the conditions and methods of their work, and also to establish a cognitive base and legitimation for their professional autonomy (Cheng & Yu, 2008; DiMaggio & Powell, 1983; Larson, 1991).

According to Tate et al. (2011, p.10) normative pressures "arise from values and standards of conduct promoted by professional networks, industry associations, and

academic institutions." This is based on the theory that individuals within a specific profession exhibit norms and cultural behaviors that are associated with their occupation.

As a consequence, those within a particular vocation are more likely to exhibit homogeneous traits and characteristics, to appear legitimate. Normative pressure is passed through the appropriate norms that educational institutions enact on students through formal education, as well as through an individual's association with professional networks (Dimaggio and Powell 1983).

Normative isomorphism relates to a firm's willingness to respond to external pressures for greater environmental commitment, and it is dependent on the extent to which a change in firm behavior results in higher levels of 'legitimacy' (Zhu and Sarkis 2007). Competitors and industry associations are examples of external forces that contribute to the focal firm's decision to adopt green supply chain practices.

The current discourses of SE allow us to understand SE as a process resulting from the continuous interaction between social entrepreneurs and the context in which they and their activities are embedded (Mair and Martı 2006, p. 40). This perspective brings together insights from sociology, political science, economics, and organization theory. Consequently, an interdisciplinary approach would be advisable for enriching our understanding of the phenomenon. In this context, the Institutional theory has much to say about SE and their interactions with other members of the supply chain.

2.6. Institutional Entrepreneurs

Previous research (DiMaggio 1988; Hargadon and Douglas 2001; Maguire, Auteurs, and Lawrence 2001) shows that changes can come with institutional entrepreneurs. The notion of institutional entrepreneurship was observed in organizational studies documenting the processes of establishing and changing social institutions (Maguire et al. 2001). According to DiMaggio (1988), an institutional entrepreneur is an agent who can mobilize resources to influence or change institutional rules to support an existing

institution, establish a new one, displace or destroy current ones (Hargadon and Douglas 2001).

Institutional entrepreneurs are further distinguished by introducing operating models that diverge from conventional or established methods, a feature not associated with other entrepreneurs (Leca, Battilana, and Boxenbaum 2008).

The relationship between social entrepreneurship and sustainable development has been addressed by various streams of thought and literature such as ecopreneurship, social entrepreneurship, sustainable entrepreneurship, plus institutional entrepreneurship (Schaltegger and Wagner 2011). According to some scholars (for ex. Chandra and Chandra 2017), both institutional and social entrepreneurs are "change agents." Institutional entrepreneurs – like social entrepreneurs – create new organizations, practices, and rules and norms that eventually generate social, cultural, and economic value to society. They often create innovative partnerships which successfully solve social problems. Their creations, though, are subject to the constraints of existing formal (e.g., political, regulatory, industry standards) and informal (e.g., socially acceptable norms and unspoken traditions) institutions.

2.7.   Summary of Literature Review

This chapter describes and summarizes published materials on two interrelated topics: supply chains and social entrepreneurship. Although it does not provide an exhaustive review of the literature, we explored a range of sources and provide information that is most relevant to see the current streams in connecting two topics: supply chains and social entrepreneurship.

The connection of supply chains with social entrepreneurship is a relatively new topic and is not extensively studied and represented in scholarly articles. At this time, few scholars have linked these two topics in their research analysis. In the reviewed literature (Tate and Bals 2016; Ibrahim and Ebrashi 2017; Best 2018), a social enterprise always appears as a supplier or distributor and never as a focal firm. Social enterprises are treated as part

of the supply chain used to bring benefits for the base-of-the-pyramid because other members of supply chains may exclude such populations.

In their work Hall and Matos (2010) explore recent calls to include social and environmental considerations in supply chains by analyzing the sourcing of raw materials from impoverished communities to reduce environmental impacts and social exclusion in biofuels production. Authors (Hall and Matos 2010) recognized an emerging stream of research on social entrepreneurship and connected the importance of business education and the establishment of a trust for the future success of newly established social enterprises in the base-of-the-pyramid environments.

Sodhi and Tang (2011) seek to identify how various social enterprises help stabilize and strengthen supply chain flows for micro-entrepreneurs. In their research, they found that social enterprises can provide their micro-entrepreneurs with (1) easier access to financial credit; (2) easier access to vital market information; (3) easier access to customers; and (4) improved access to supplies (including raw materials like water or energy) and higher productivity through improved health and equipment (Sodhi and Tang 2011).

In their research, Bals and Tate (2018) analyze the sustainable supply chain design at social businesses, incorporating the physical chain and the information and financial support chains. It should be noted that Bals and Tate use the term social business in their research, which in part can be compared with social enterprises. Authors use the definition given by Yunus et al. (Yunus, Moingeon, and Lehmann-Ortega 2010).

In their research, based on the case studies of practices from both approaches in the cotton supply chain in India, Fayet and Vermeulen (2012) mentioned social entrepreneurship as one of the options to improve small business owners inclusion by providing entrepreneurial opportunities within the supply chain. Their research focused predominantly on the fair-trade business models.

Similarly as suggested by Peredo and McLean (2006) assumption is made in this work concerning the relationship between social entrepreneurship and what is called "social enterprise." Social enterprise as an activity (normally represented by using the term without a definite or indefinite article) is commonly equated (as several quotations will

illustrate) with social entrepreneurship. Although the relationship between social entrepreneurship and social enterprises is more complex, social enterprise reveal a focus on the purpose of social businesses, while findings on social entrepreneurship reveal an emphasis on the processes underlying innovative and entrepreneurial activity for social purposes.

Belinda and Chu (2013) studied distinctions between social enterprise and social entrepreneurship from a theoretical perspective and then examines these concepts in practice through case study analysis of activity in 10 NGOs. According to their findings (Belinda and Chu 2013), supply chains linked with social enterprises connect with private sector companies to build supply chains and secure demand for products. They are using innovative approaches to integrate businesses into local markets(Belinda and Chu 2013).

Bringing in the role of the social entrepreneur and broad stakeholder base, Bals and Tate (2018) corresponds to, but extends, earlier findings on preconditions for optimization of the economic and environmental dimensions of social enterprises. They highlight the social entrepreneurial motivation as a tool that helps create supply chain practices that differ from industry norms.

Unlike scholarly literature, grey literature[4] says more about the connection between supply chains and social entrepreneurship. Chhabra (2016) addresses how social entrepreneurial goal is to determine manufacturing with ethical supply chains. According to Chhabra, this is based off the assumption that if the social and environmental impact of the supply chain is positive, it will have a triple bottom line effect, benefiting the folks making them (and in many cases, the environment).

In his article, Duque (2017) debates about the efforts global supply chains have to avoid or mitigate negative social and environmental impacts, particularly for companies with

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[4]As defined by the Grey Literature International Steering Committee (GLISC), grey literature has been defined as: Information produced on all levels of government, academics, business and industry in electronic and print formats not controlled by commercial publishing i.e. where publishing is not the primary activity of the producing body.

links in the developing world. This phenomenon occurs in two ways, according to the Harvard Business Review (Duque 2017). Duque (2017) highlights corporate social responsibility and sustainability as two important values that can be contributed by social entrepreneurs.

Like others, Loosemore (2016) describes differences between traditional contractors, subcontractors, and consultants which operate in construction project supply chains. Social enterprises specialize in adding social value to their commercial activities by benefiting disadvantaged groups in the community such as the unemployed, disabled and indigenous.

When bringing together supply chains and social entrepreneurship, the abovementioned authors have raised some dilemmas and questions:

1. How can social enterprises be used to create supply and demand for 'social' products (University of Oxford 2016)?
2. What is the mix of appropriate supply chain and other performance measures for the sustained success of a social enterprise working with micro-entrepreneurs (Sodhi and Tang 2011)?
3. How can different social enterprises coordinate/collaborate in order to complement each other to improve the flows along a supply chain (Sodhi and Tang 2011)?
4. How can government policy improve the success of a social enterprise and its micro-entrepreneurs (Sodhi and Tang 2011)?
5. Can social enterprises be used as a framework to reduce the transportation carbon footprint, improve energy efficiency. and/or labor law adherence from sustainability point of view (Bals and Tate 2018)

In a workshop, organized by the Skoll Centre (2017), authors highlighted the issue of the low presence of social entrepreneurial organizations in supply chains, both in the business and in the public sectors. According to them (Skoll Centre 2017), in most cases, social ventures are too small to bid for contracts and too young to have a proven track record that would facilitate their winning supply or service contracts. The group tackling the issue "access to supply chains" found several core causes for this issue (Skoll Centre 2017). Some causes can be attributed to the failings of social enterprises themselves:

– a lack of transparency and metrics that would lower the perceived risk of social ventures;

– a low understanding of tender processes;

– and the inability of social enterprises to scale and integrate or collaborate in order to bid for big projects and commissions.

Other challenges are created by the environment in which business operates:

– procurement practices and contracts that do not favor the involvement of social enterprises and small organizations in supply chains of corporations and public bodies;

– the existing regulatory environment;

– and the still low recognition of the value and specifies of social enterprises outside of the sector.

This trend of greater awareness of the benefits of, and need for, social responsibility to permeate through the supply chain points towards a clear rationale for a greater social entrepreneurial role (Hoag and Irfan 2013). In their report, Hoag and Irfan (2013) based on several interviews, suggested incorporating social enterprises into the supply chain. According to Hoag and Irfan (2013), social enterprises can encourage facility managers considering local social enterprises in incorporating social value indicators into the central procurement process.

Through studying the literature, we tried to understand how social enterprises can fulfill their mission across the supply chain and how they can connect with different members of supply chains. Embeddedness of social enterprises in supply chains is viewed through the lenses od social capital. Social capital can be considered as an accumulation of various types of intangible social, psychological, cultural, institutional, and related assets that influence cooperative behavior (Uphoff, 1999). Social capital theory can be explained in terms of the various components of the theory.

Chapter 3

This chapter discusses the research methodology and approach for this dissertation. This chapter also presents important assumptions about methodology and data. In this chapter, we also emphasize the theoretical model by illustrating three cases with their detailed supply chains. In this chapter, we also define and describe the criteria that we used to choose study cases.

3.1.   Research Framework and Questions

Based on the objectives of this work, this research aims to answer the following question:

What is the role of social enterprises in supply chains?

The purpose of this study is to introduce, demonstrate, and evaluate the role and participation of social enterprises in sustainable supply chains. This research addresses the issue through research questions and statements of the roles of social enterprises within a supply chain sustainability environment through a social capital theory lens.

To find out significant answers to the research questions introduced later in this chapter, the data used is mainly from case studies. It clarifies the relationships within the supply chain and the importance of social enterprises as potential institutional entrepreneurs. Also, supporting data was used from the results obtained from interviews and questionnaire. Collecting data from the previously mentioned sources was done by comparing and contrasting the results.

Social capital theory was used as a theoretical lens to understand the impact and implications of the social capital within the affiliated organizations. Within the research, we examine and seek to understand the role and the consequences of perceived social

capital on the supply chain partners. Praszkier at al. (2009) has recognized the important role of social enterprises in promoting social capital. Social enterprises are highly effective in achieving change through building social capital.

In this study, and from the related research questions, the research framework (Figure 3.1) is used as an integrative representation of the theoretical relationships to be investigated. The research framework begins, on the left hand side of Figure 3.1, with the perceived level of social capital as an important antecedent for supply chain partners to join the supply chain. The overall idea of social capital is that forming relationships, sharing, and working together offers a greater benefit than if operating alone.

Although social capital theory has primarily been studied in the social sciences, it has seen application to business literature; as evidenced by the discussion in Chapter 2 of this dissertation. Nahapiet and Ghoshal's (1998) social capital definition and constructs of structural, relational, and cognitive attributes, form the basis of the social capital theory used in this study. With understanding and exploring the perceived social capital, we tried to answer the research questions about the antecedents for social enterprises and supply chain members to join a supply chain.
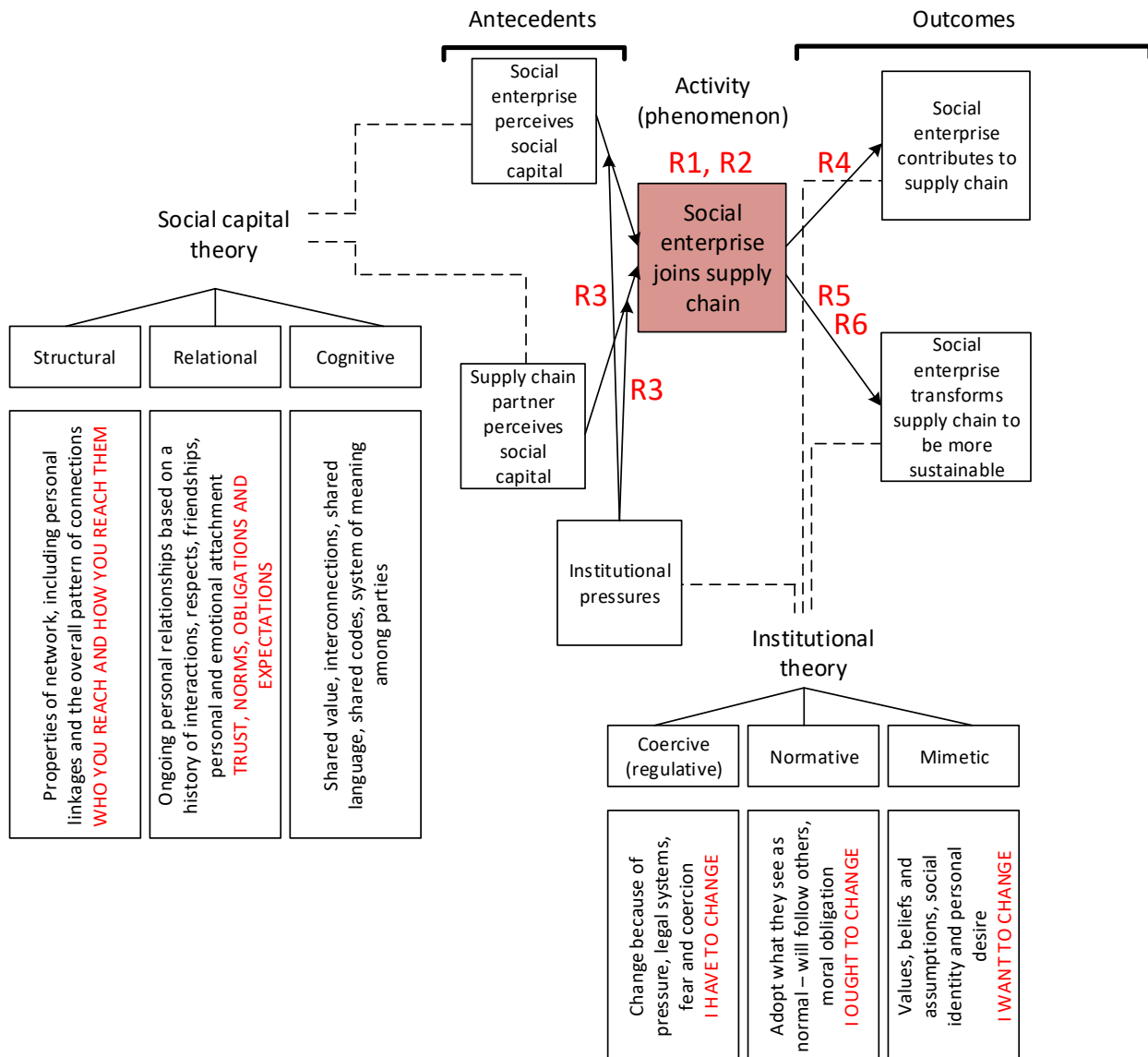
Figure 3.1.: Expanded Research Framework

Next in the research framework is understanding the process of change across the supply chain. To understand the process of change within and between the organizations, members of the supply chain will be influenced by Institutional theory constructs. According to institutional theory, drivers of sustainable supply management can be categorized as coercive drivers, mimetic drivers and normative drivers (Zhu and Sarkis, 2007; Hsu, et al., 2013; Glover, et al., 2014).

Coercive pressures represent the formal or official institutions of laws and regulations. Coercive pressures can also be informal demands or expectations on organizations.

Certain dimensions and technical standards that influence power individuals over each other are examples of informal coercive pressures (DiMaggio & Powell, 1991).

Arguably, institutional pressures may also moderate the relationships between the social capital antecedents to social enterprises joining the supply chain activity. The argument may be that social capital influences may become stronger linkages with various pressures in place. For example, governmental regulatory requirements and coercive pressures may cause some organizations to consider forming a partnership with a social enterprise, further encouraging them or being sought out, to join a supply chain.

The outcomes may also be influenced by various institutional pressures, where the sought-after outcomes would include business (supply chain) outcomes to actually deliver a product or service to fulfill an institutional need; profitability and jobs for those in the supply chain. It will also mean that there are sustainability outcomes as well. These would be more social or environmental needs and outcomes. In this case, fire prevention to save lives.

A number of research questions are derived from this theoretical framework. Six research questions formulated for this research are explicitly shown in Figure 3.1 are:

1. What are the antecedents for social enterprises to join supply chains?

2. What are the antecedents for supply chain members to partner with social enterprises?

3. What roles do external institutional pressures play in social enterprises joining supply chains?

4. Do social enterprises contribute to supply chains sustainability and bring legitimacy to the supply chain?

5. From a sustainability perspective, can a social enterprise be an institutional entrepreneur?

6. How do social enterprises transform institutions in supply chains?

And seventh and general research question falls out of the overall study and is:

7. Are Social Capital and Institutional Theories valid theoretical lenses for understanding the influences of social enterprises in supply chains?

3.2. Methodology and Data

The research methodology is divided into three main parts. *Part one* is a detailed literature review of the current research on the interaction between supply chain management and formulation of social enterprise theory that has already been completed in Chapter 2 and Chapter 3.1. It helps to understand the potential of social capital and values social enterprises can bring in partnering with different supply chain members. *Part two* is a qualitative data collection, while *part three* is data analysis with propositions and conclusions. In this chapter, a research model is introduced and its constructs are defined.

3.2.1. Research model

This research followed the pattern that emerged from the theory formulation, case analysis, and use of the thematic analysis which served as a tool for finding answers to the research questions (see Fig. 3.2.).
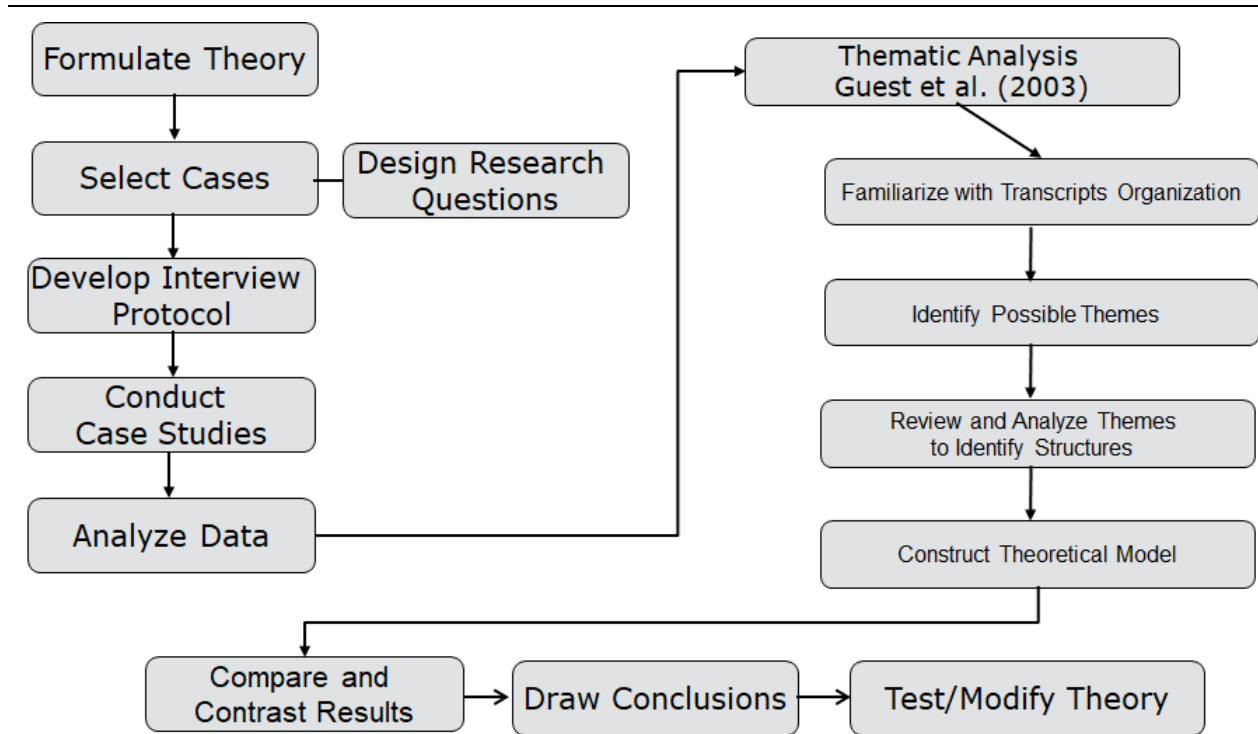
Figure 3.2.: Schematic Representation of Research

Shown research model details are described below.

3.2.2. Data Sources and Collection

To determine the role of social enterprises in the supply chain, qualitative data was collected. Data in this research was drawn from interviews, company archival records, and email communications. The resulting final questionnaire was reviewed and approved by the IRB. Questionnaire included a mix of structured and semi-structured questions.

Data necessary for the research was generated using the following strategies:

- Use of primary sources (semi-structured interviews and observations) from fire prevention focused supply chains. Primary data was gathered from the organization of case studies through surveys, visits, and/or skype interviews.

The interviews protocol was developed in English and was based on the literature review. We composed relevant questions and later connected them to the theoretical framework and concepts. The interview protocol is included in Appendix 1. The research framework topics and their relationship with the corresponding structured interview questions are summarized in Table 3.1.

Table 3.1.: Areas Covered in the Questionnaire and the Corresponding Questions

Topic covered in the questionnaire	Questions
General questions	1 - 5
Supply Chain related questions	6 - 16
Institutional theory related questions	17 - 33
Social Capital related questions	34 - 43
Closing questions	44 - 45

- Use of secondary sources (strategic planning documents, meeting minutes) from the case study organizations and supply chain partners.
- Use scholarly research literature.

Data collection included fifteen interviews with social entrepreneurs, and representatives, and members of the supply chain. The respondents include three social entrepreneurs, six suppliers, and six distributors. A detailed breakdown is given in the figures below. In the case of Social Enterprise 1, we gather information from two suppliers and two distributors; including the focal company Social Enterprise 1 as well (see Fig. 3.3.).
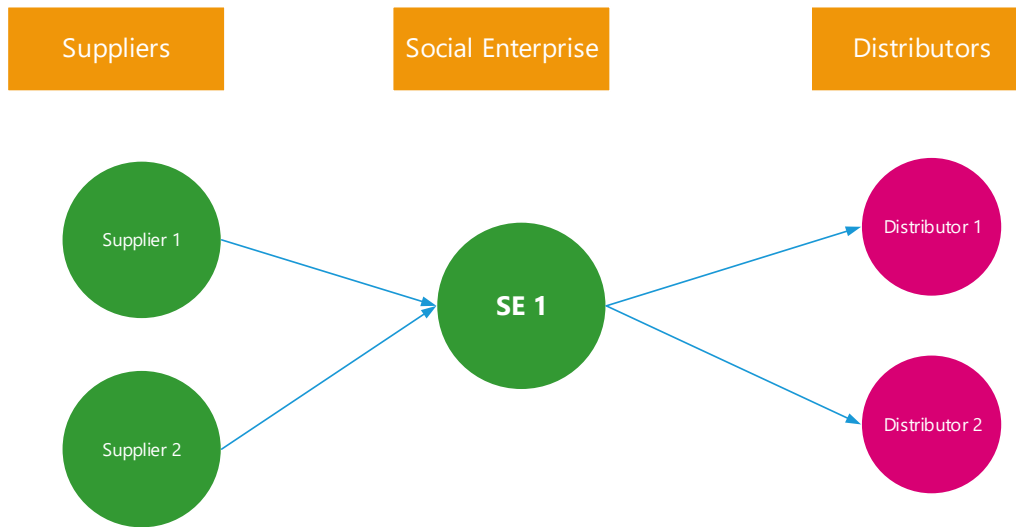
Figure 3.3.: Interviewed Members of Social Enterprise 1

In the case of Social Enterprise 2, we include three suppliers and one distributor (see Fig. 3.4.).
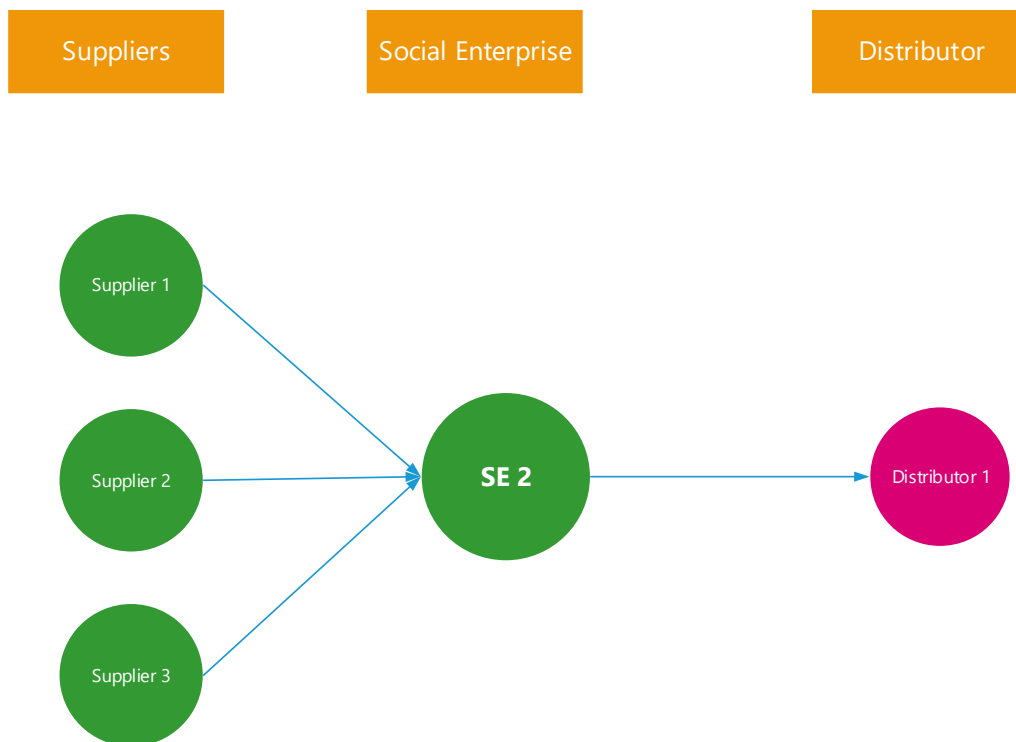
Figure 3.4.: Interviewed Members of Social Enterprise 2

In case of Social Enterprise 3, we analyzed one supplier and three distributors (see Fig. 3.5.).
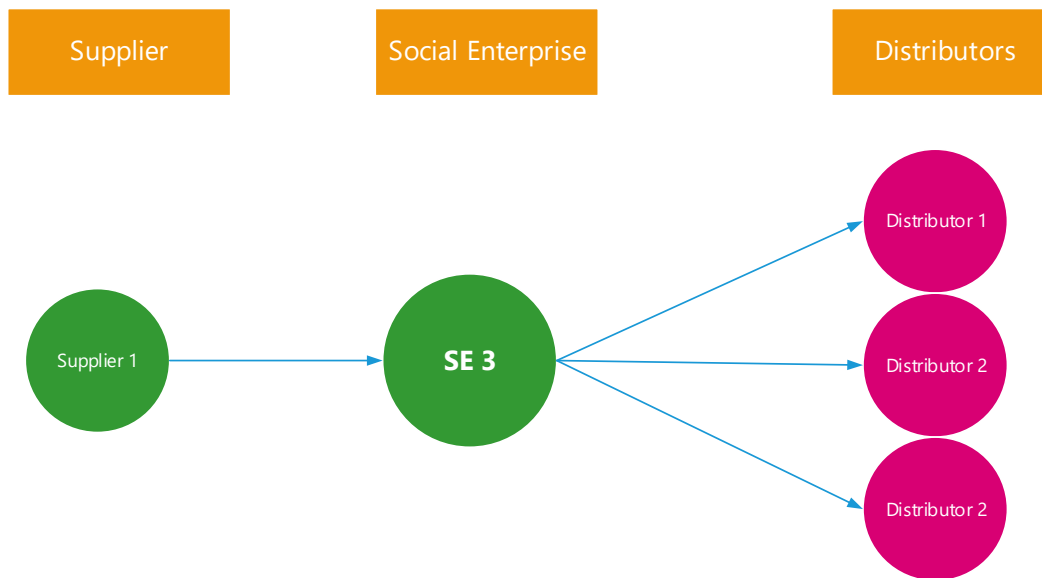
Figure 3.5.: Interviewed Members of Social Enterprise 3

We summarize the supply chain primary data sources in Figure 3.6.
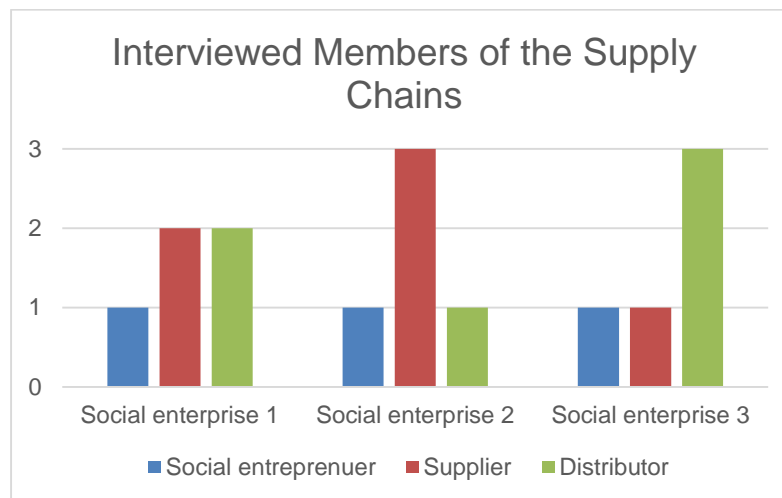
Figure 3.6.: An Overview of the Interviewees

3.2.3. Validation Strategies

For the study, we interviewed fifteen -- five respondents per case -- different members of the case supply chains. Thematic data saturation was reached at the thirteenth interview, although there were no major surprises in the eleventh interview. According to O'Reilly and Parker (2013), thematic data saturation means that data is been collected until there are no unexpected results in the data and no more patterns nor themes which emerge from the data.

Also, Brod et al. (2009) explain that there should not be any new perspectives on the research questions, thus concluding that saturation has been achieved.

To ensure and validate the adequacy of the sample, we created a saturation grid, as suggested by Brod et al. (2009). In the saturation grid (see Table 3.2.), major topics were listed on the horizontal axis, and interviews which were to be conducted were listed on the vertical axis.

Table 3.2.: Saturation Grid

Themes	Social enterprise 1					Social enterprise 2					Social enterprise 3				
	SE	S1	S2	D1	D2	SE	S1	S2	S3	D1	SE	S1	D1	D2	D3
Theme: General supply chain questions															
Caring for sustainable solutions	X		X	X	X	X		X		X	X	X	X	X	X
Implementing sustainability in the supply chain	X		X	X	X	X	X		X	X	X	X		X	X
Importance of legitimacy	X	X		X	X	X	X	X		X	X		X	X	
Theme: Institutional theory															
Change after being a member of	X	X	X		X	X	X	X	X	X	X	X		X	X

the supply chain															
Need for better fire safety codes	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Partnering in the supply chain required for the legitimacy	X	X		X	X	X	X		X	X	X		X	X	X
Importance of reputation	X	X	X	X		X	X	X	X	X	X	X	X	X	X
Theme: Social capital															
Volunteering in the local community		X	X		X	X	X	X		X	X	X			X
Importance of social networks	X	X	X		X	X	X	X	X	X	X	X	X	X	

Note: x indicates the theme observed

The summary of responses is given graphically as a percentage in Figure 3.7.
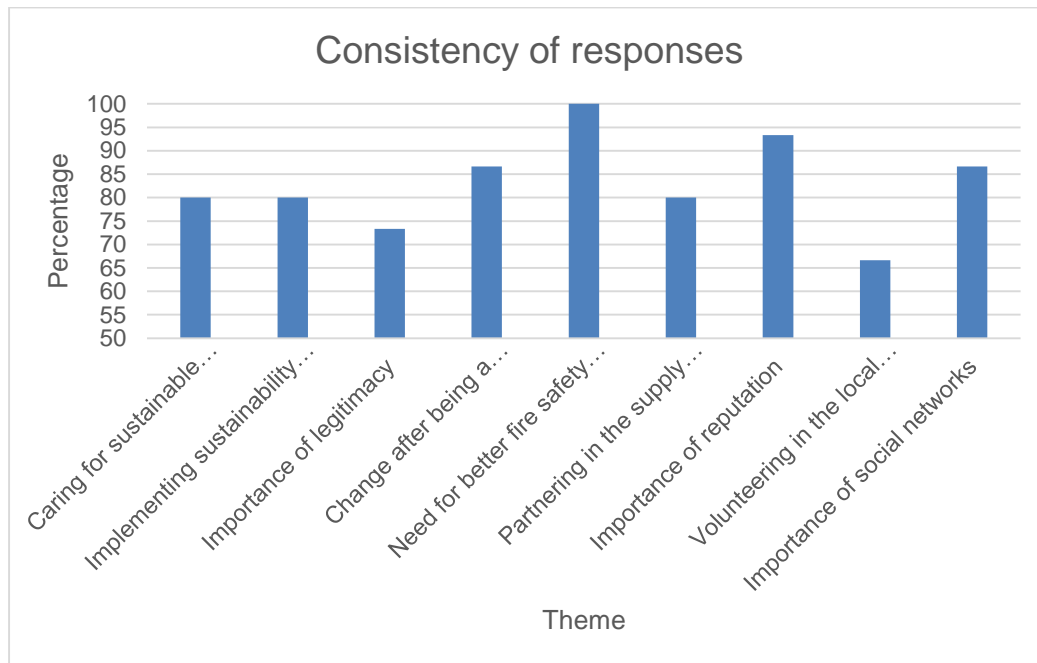
Figure 3.7.: Summary of Responses Based on Saturation Grid

In Figure 3.7, the lowest value of matching responses relates to voluntary work in their local communities. Of all the interviewees, 67% reported participation in local volunteering activities. All interviewees (100%) agreed that they needed more regulations in the area of fire safety. The least consistent results were found in the importance of placement legitimacy. 73% of respondents agreed that legitimacy is important for successful partnership with supply chains. The interview respondent consistency in all the other subjects was 80% or more which is at the saturation point.

Telephone and Skype interviews lasted for approximately one hour in duration. Also, field notes and observations were composed while instructing the interviewees.

All interviews were transcribed into Microsoft Word format to allow for further utilization in qualitative research methods. Interviews averaged between 5,000 to 6,000 words.

A thematic analysis of qualitative data was used, supported by qualitative analysis software, Deedose (Taylor and Treacy 2013). Dedoose is a web application for mixed methods research. As an alternative to other qualitative data analysis software, it is

explicitly aimed at facilitating rigorous mixed methods research. Dedoose data are organized into a series of 'codes.' These codes are short statements that capture the meanings of phrases and can be used to index and group data together into sentences with similar ideas or purpose.

The coding stage is critically important to the whole analysis since these codes will form the building blocks of further analysis. Coding or categorizing the data has an important role in the analysis (Basit 2003). It involves subdividing the data as well as assigning categories (Dey 1993). Codes or categories are tags or labels for allocating units of meaning to the descriptive or inferential information compiled during a study (Basit 2003).

Content analysis is dependent on creating labels (codes) that can be applied to data in order to develop the data into meaningful categories. The data is later analyzed and interpreted (Blair 2015). In order to follow the research pattern, interviews were transcribed and then coded. During the process of coding, we went through each of the interview transcripts and checked for social capital and institutional theory constructs. Each of these constructs was assigned to a category. For instance, complaints about the fire safety codes were classified under the code "no sufficient legislation." These categories or codes emerged from our data. Stemler (2001) namely discusses two approaches to the coding of data. First inductive coding is where codes are drawn from the text. Next is deductive coding where codes are borrowed from the theoretical frameworks or key themes from relevant literature (Mwangi and Bettencourt 2017). The codes are created beforehand and later applied to the text.

In piloting two data coding techniques, we were able to examine the benefits and drawbacks of both inductive and deductive coding and consider which was best suited to our study. With the method, codes are reflection of activities, relationships, roles, processes, emotions, perspectives, and other units (Mwangi and Bettencourt 2017). Faherty (2010, p.59) reports that there are "no absolute hard-and-fast rules" to coding; therefore, it was important for us to be open to data coding methods and use these pilots as a means of discovery.

Research verification has been checked through an internal and external examination of validity and reliability. During the course of our research, five interviewees were contacted after the interview to confirm or disconfirm what has been interpreted by the researcher.

Internal validity often called credibility, refers to the believability and trustworthiness of the findings. This depends more on the richness of the data gathered than on the quantity of data. Data collected through interviews were to the maximum possible extent verified using a triangulation method as suggested by some entrepreneurship scholars (Aier and Simon 2012; Dana and Dana 2005). Triangulation is a commonly used method for verifying accuracy that involves cross-checking information from multiple perspectives.

Grey literature (web sites), cross-checking, and secondary sources were used to verify the collected data. Emergent categories and perceived qualitative relationships were tested through a meeting of various stakeholders, responsible for the fire prevention policy. Internal validity was additionally tested with the saturation method where we after the eleventh interview we saw neither surprises in the data or patterns nor themes that emerged from the data

External validity or transferability refers to the degree that the findings of the research can be transferred to other contexts by the readers (Dana and Dana 2005). This means that the results are generalizable and can be applied to other similar settings, populations, and situations, (Michael, Desislava, and Patricia 2009). Our findings can be, to some extent, compared with similar research carried out in the health and social sciences areas, which can be partly contributed to external validity.

Reliability refers to a degree to which research can be repeated and obtain the same study results. Since it is not practical for a qualitative study to be conducted more than once, the reliability of this study has been realized by establishing trustworthiness (Tierney and Clemens 2007). We have also found similarities between three cases, which, to some extent, represent a degree of reliability as suggested by some researchers (Morse et al. 2017). A certain amount of validity can, therefore, be expected due to the adopted research approach as also suggested by Aier and Simon (2012).

We believe that we have achieved sufficient internal validity. Due to the novelty of the research topics, we are aware that it is difficult to reach the right level of external validity. As suggested by Dana and Dana (2005) often, a researcher can reach high internal validity, although external validity may be limited. As summarized by Mook, "misplaced preoccupation with external validity can lead us to dismiss good research for which generalization ... is not intended or meaningful" (1983, p. 379).

Thematic analysis was the focus of the theoretical evaluation. Thematic analysis is described by Gibson & Brown (2009) as "the process of analyzing data according to commonalities, relationships and differences across a data set" (p. 127). Guest et al. (2003) describe four basic steps in undertaking thematic analysis that was applied in the research:

1. Familiarization with, and organization of transcripts.
2. Identification of possible themes.
3. Review and analysis of themes in order to identify structures.
4. Construction of theoretical model, constantly checked against new data.

To support our primary research question, we analyzed three cases which address the problem from perspectives implying the relationship between social enterprises and different partners in supply chains. The analyzed cases comprised of three social enterprises with established supply chains.

For this research, the following criteria were applied to determine the identity of social enterprises:

6. Social enterprises encompass the activities and processes undertaken to discover, define, and exploit opportunities to enhance social wealth by creating new ventures or innovatively managing existing organizations (Zahra et al. 2009);
7. Social enterprises refer to organizations who pursue innovation with a social objective, including for-profit, non-profit, or hybrid forms of organizing (Austin, Stevenson, & Wei-Skillern, 2006);

8. Social enterprises differ from other entrepreneurial ventures by their focus on addressing social problems rather than on market growth or profitability (Austin, Stevenson, and Wei-Skillern 2006);

9. Social enterprises manifest utilitarian identities as they seek to minimize cost (Luke, Kearins, and Verreynne 2011) and increase revenues through philanthropic donations, earned income, and for-profit activities which serve social purposes (e.g., Peredo and McLean 2006; Thompson and Doherty 2006; Haugh 2007);

10. Innovativeness, proactiveness, and risk management are key factors in social value creation (Weerawardena and Sullivan-mort 2001). This suggests that an entrepreneurial posture or approach to conducting business may thus reflect a utilitarian identity in all types of ventures, including social enterprises.

3.3. Case Study Social Enterprises

Three case study fire prevention social enterprises and their supply chains have been identified and were used in this study. Each social enterprise in the examined supply chain is a focal company. Focal companies are those companies whose perspective we are taking to rule or govern the supply chain, provide the direct contact to the customer, and design the product or service offered (Schary and Skjøtt-Larsen 2001).

Each of the studied cases is now overviewed. At the request of some of the participating companies, the companies are anonymous to protect their identity.

3.3.1. Case 1: Social Enterprise 1

Social enterprise 1 is a Canadian based social enterprise with global potential that provides expert training, affordable teaching tools, and cutting-edge technology that positively impacts children and revolutionizes worldwide fire and life safety education. They offer a set of online and face-to-face courses supported with expert training, affordable teaching tools, and cutting-edge technology that revolutionizes the way fire and life safety education is taught around the world. Social enterprise representatives are trained by current and ex fire department staff who teach fire safety to kids through to adults.

Social enterprise 1 meets NFPA[5] 1035, 1730, and 1452 Standards. Standard NFPA 1035 identifies the minimum job performance requirements for public fire and life safety educators, public information officers, youth firesetter intervention specialists, and youth firesetter program managers (NFPA 2019). Standard NFPA 1730 contains minimum requirements relating to the organization and deployment of code enforcement, plan review, fire investigation, and public education (NFPA 2019). Standard NFPA 1452 helps

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[5] NFPA, the National Fire Protection Association, is a global nonprofit organization established in 1896. They provide fire, electrical, and life safety standards.

fire departments design and implement of a community risk reduction program for residential occupancies (NFPA 2019).

Social enterprise 1 collaborates with fire departments and other local community-based organizations -- The Red Cross, Women's Union, engineering organizations, organizations for the disabled -- to ensure all children get the chance to gain life safety skills that are not taught at school or in most homes. In addition to this, they are trained to establish new social entrepreneurship initiatives and partnerships among various stakeholders.

Social enterprise 1 and its supply chain are local fire prevention motivators that not only care about fire prevention but are also educated and trained to establish a feasible and sustainable cross sector collaboration with employment opportunities. They have their services provided through online, face-to-face lectures, and video conferencing available to customers. They have clients that include civil society organizations such as the Red Cross, schools, and fire brigades. They also back up their services with superb technical support. The social enterprise, in this case, is selling its products through traditional direct sales and networks of partners and retailers (see Figure 3.8.).
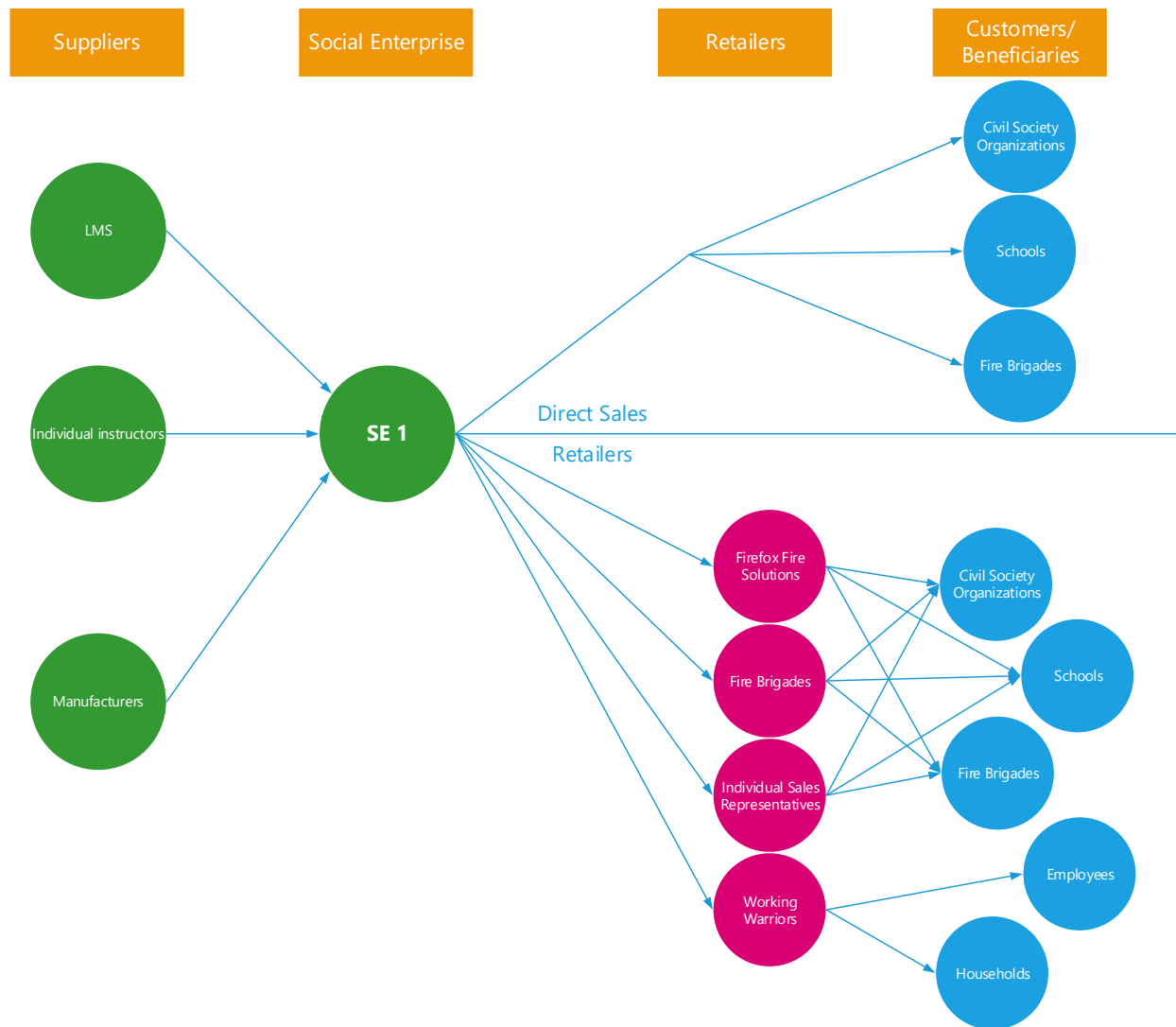
Figure 3.8.: SE 1 Supply Chain

This social enterprise identifies itself as an innovative social business initiative with an opportunity to scale and provide employment opportunities for vulnerable groups. The company is very focused on anticipating their beneficiaries needs and the demands of the market. Their supply chain has been improving since the social enterprise was launched. It has adapted to a more fire risk-prone target segments, such as aboriginal youth of Canada.

Their suppliers are providers of learning management software, individual instructors, and manufacturers of fire safety equipment and fire promotion materials.

Social Enterprise 1 employs a CEO (business owner) as a full time employee, plus a program developer and a media planner as part time employees. When analyzed, this social enterprise was two years old.

A social entrepreneur (CEO), two suppliers and two distributors were interviewed as members of their supply chain.

In Canada, the term social entrepreneurship is relatively new and has only recently entered into discussions (McMurtry and Brouard 2017; de Lange and Dodds 2017). At this time, this social enterprise has, as yet, no clearly and legally defined meaning in Canada (CSEF 2017). British Columbia, for example, was the first to introduce formal policy surrounding social enterprises in 2012, amending the Business Corporations Act to include the community contribution companies, or C3, model (Scalise 2018). Other provinces have been slowly following suit, such as Ontario, where the government has released a 2016–2021 social enterprise strategy to target the growth of the sector. However, there is still no formal governing body that exists on the federal level to regulate and monitor the industry in the same capacity as it would for fair trade products (Scalise 2018).

According to Scalise (2018), Canada has been criticized in the past for being about ten years behind other western nations when it comes to the development of the social entrepreneurial sector. Surprisingly, according to a survey by Thomson Reuters Foundation and Deutsche Bank, social entrepreneurs in Canada benefit from one of the best environments in the world for starting and growing businesses aimed at producing a positive social impact (Invest in Ontario 2016).

Although the focus is also on societal management of social needs, the majority of social enterprise development has come from small for-profit rather than non-profit projects (de Lange and Dodds 2017). In 2016 Canada announced an official definition alongside a national directory defining social enterprise as "an enterprise that seeks to achieve social, cultural, or environmental aims through the sale of goods and services" (Scalise 2018).

Since then, social enterprises in Canada have a sector within themselves, one in which the Government of Canada takes an interest (CSEF 2017; de Lange and Dodds 2017).

Social enterprises in Canada are most likely to operate at the scale of a neighborhood or local community (58%), at the city or town scales (61%) and/or regional district (49%) scales. Lower proportions of social enterprises operate at the provincial (27%), national scale (13%), and international scales (10%) (Elson, Hall, and Wamucii 2016).

In the social entrepreneurial survey from 2016 that captured 1300 social enterprises, the highest percentage of social enterprises (81%) describe themselves as having a social purpose, while 45 percent of social enterprises operate to achieve a cultural purpose. Twenty-six percent work towards employment development, 27 percent focus on the environment, and 19 percent on training for workforce organization. Nineteen percent of social enterprises focus on income generation for parent organizations (Elson et al. 2016). Approximately 76% of analyzed Canadian social enterprises are nonprofits, and 55% are also registered charities. 21% are co-operatives (Elson et al. 2016).

3.3.2. Case 2: Social Enterprise 2

The second case is about a United Kingdom (UK) based social enterprise and its supply chain. The social enterprise under consideration focuses on giving customers a tailored service at an affordable price. They also give additional monetary value by using profits for the greater good, which contributes to corporate social responsibility. The profits generated from their online store goes into a pot for the families who lose everything in a fire to start building their lives back from the ashes.

Their important goals are:

- Bringing awareness to the importance of fire safety in homes through community projects,
- Educating children within schools about the importance of staying fire safe, and
- Supporting local social issues that are challenging to communities.

Social Enterprise 2 operates on three values 'Integrity, Trust and Transparency'. They give clients peace of mind that not only do they receive a high quality service at a good price but that some of the profits made from their transactions are being used to help others within the community that will one-day benefit or save lives. The company installs, maintains, and services active fire protection systems. Their services include supply and servicing of fire extinguishers, fire safety training, fire risk assessments, fire alarms, emergency lighting, and associated fire equipment throughout the UK. They also provide the emergency 24-hour call for their customers.

They have clients in the form of small and mid-size businesses, fire brigades, schools, and households. Their suppliers are manufacturers of fire extinguishers, fire alarms, emergency lighting, and safety signs. They are selling their products through traditional direct sales and an online store. (Figure 3.9.).
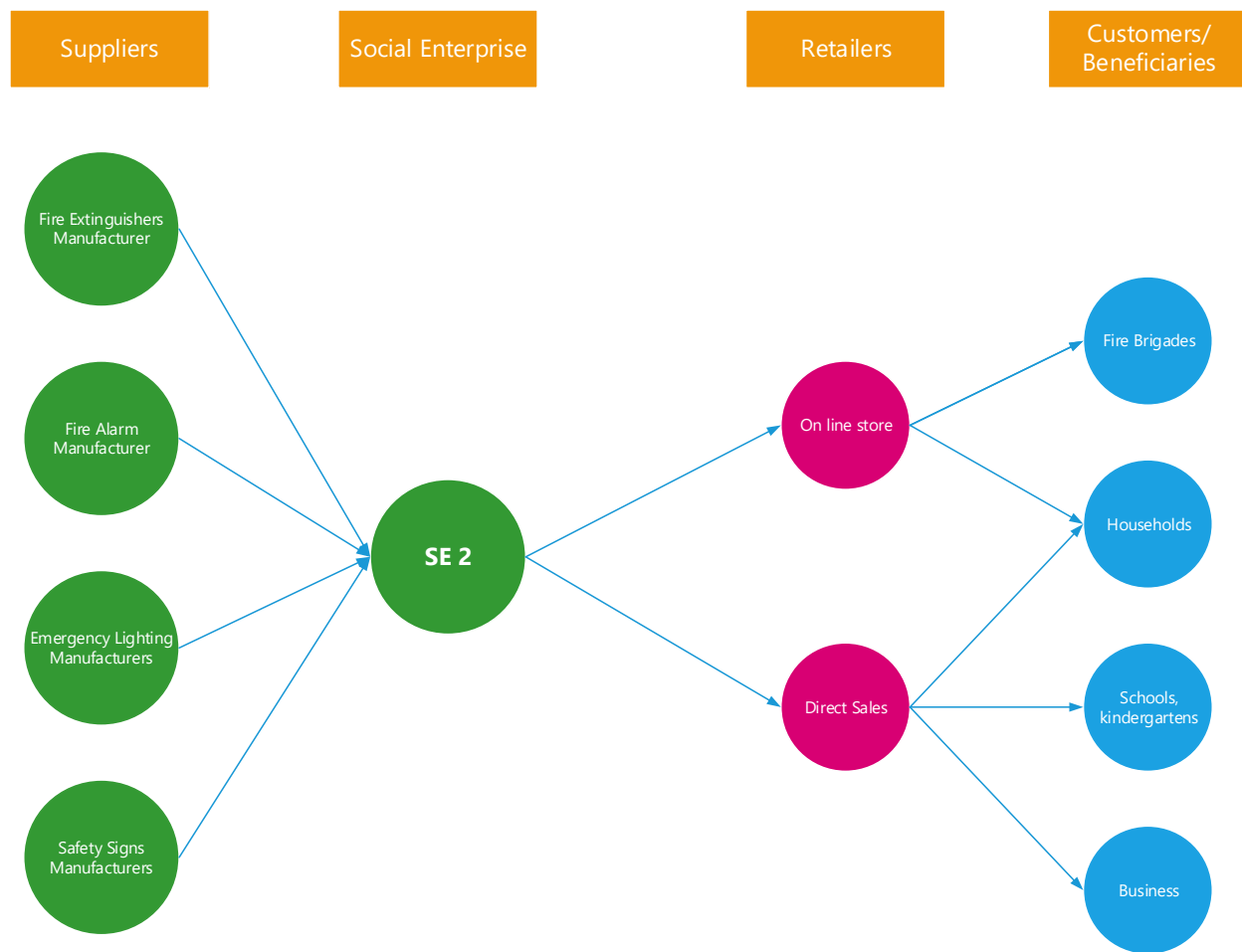
Figure 3.9.: SE 2 Supply Chain

Social Enterprise 2 is a CIC[6] accredited social enterprise. They are also ISO 9000 certified. When analyzed, this social enterprise was three years old.

Social enterprise 2 employs a CEO, a company director, a non-executive director, a chief financial officer (CFO), operations manager, sales manager, and business development manager. Their target customers are private businesses, public hospitals, schools, and elderly homes in Birmingham and Chester in the UK.

[6] The Social Enterprise Mark (CIC) is the only internationally available social enterprise accreditation scheme, enabling credible social enterprises to prove that they are making a difference.

A social entrepreneur (CEO), three suppliers, and one distributor were interviewed as a part of the case 2 supply chain study.

The UK is viewed by many other countries as a pioneer in social enterprises and the associated practices of social investment and social value. Government statistics identify around 70,000 social enterprises in the UK, contributing £24 billion to the economy and employing nearly a million people. Research by NCVO[7] for Big Society Capital independently identified 67,000 'asset-locked social companies'.

Since 2005, over 13,000 Community Interest Companies have been founded, another indicator of the growth of the movement (Butler et al. 2017). Social enterprises are continuing to do business differently, and showing considerable commercial resilience: it continues to outperform mainstream small and medium enterprises against a range of business metrics: turnover growth, innovation, business optimism, start-up rates, diversity in leadership and more (Butler et al. 2017). Over 70% made a profit or broke even in the last year (Butler et al. 2017). In the United Kingdom, social investing is well established.

According to the UK government report from 2007 to 2012, social investment funds across the world have nearly doubled. JP Morgan and the World Economic Forum estimate it could reach $1 trillion by 2020 (UK Government 2015). Based in the report, published by the Social Enterprise UK, social enterprise sector accounts for 3 per cent of gross domestic product, three times larger than agriculture and as important as creative services for the UK's economy (Kay 2018). Social enterprises employ 5 per cent of people in work in the UK (Kay 2018). Almost half of social enterprises say they grew in the past 12 months (2018), compared with only 34 per cent of traditional businesses (Kay 2018).

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[7] The National Council for Voluntary Organizations (NCVO) is the umbrella body for the voluntary and community sector in England.

3.3.3. Case 3: Social Enterprise 3

Since the best way to prevent fire-related deaths is the installation of smoke and fire alarms in the home, this third social enterprise case provides peace of mind and 24/7 protection to families in the form of a cool smoke and fire alarm. The NFPA reports that 2/3 of all home fire deaths are in dwellings with no smoke and fire alarms. By making smoke alarms cool and moving away from a fear-based model to a fun model, the observed social enterprise catapults safety awareness by making life-saving smoke and fire alarms visible, fashionable and talked about by kids and adults alike.

Their services include online sales of unique painted fire detectors. Their main supplier is the smoke detector manufacturer and the national sports league. The majority of the sales is from the online store. They have clients in the form of small and mid-size businesses, fire brigades, schools, and households (Figure 3.10.).
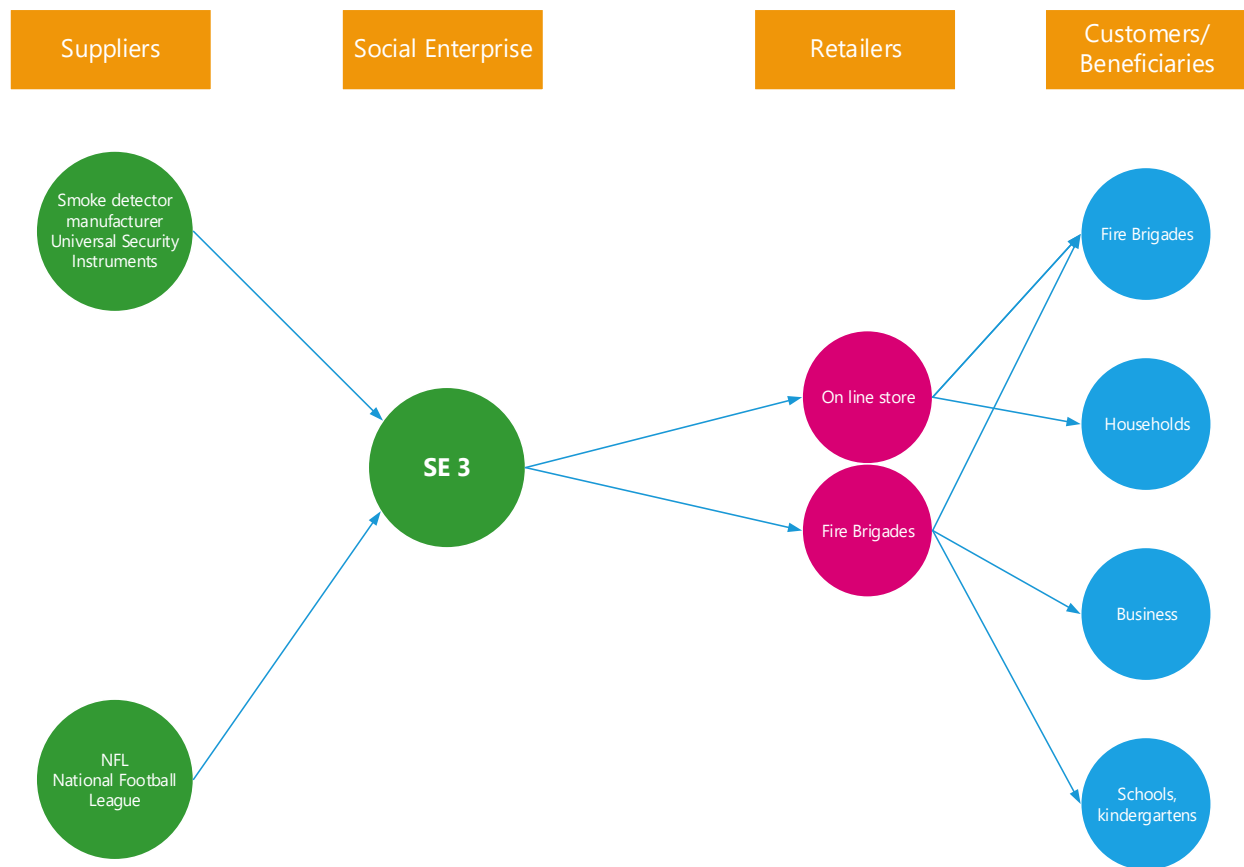
Figure 3.10.: SE3 Supply Chain

Social Enterprise 3 employs a CEO (business owner) as a full time employee and a media planner as a part-time employee. Their target customers are students attending preschool and elementary schools in the New York City area plus their family.

A social entrepreneur (CEO), one supplier and three distributors were interviewed as members of the case 3 supply chain. When analyzed, this social enterprise was two years old.

Social enterprises in the U.S. are small on average, by revenue and number of employees, an even mix of for-profits and non-profits and are scattered throughout the country. Over 90 percent are focused on solving domestic problems rather than overseas (Thornley 2012). Around 40 percent of U.S. social enterprises have fewer than five employees; just 8 percent have more than 100 (Thornley 2012). Social enterprise in the United States is, by comparison, largely left to the private and civil society sectors. Typical organizational arrangements for U.S. social enterprises span both nonprofit and for-profit legal forms.

According to the Thomson Reuters Foundation, United States is the best country for business leaders seeking to tackle social problems, according to the first experts' poll on the top nations for social entrepreneurs, but their work is still a mystery to most people, hampering growth (Lombardi and Wulfhorst 2016). In the US, social enterprises have various titles and origins. In general, the social enterprise is not legally defined (Defourny and Nyssens 2010).

Social enterprises have organizational forms such as the: (1) social purpose corporation, (2) public benefit corporation, (3) benefit corporation, and (4) low-profit limited liability company ("L3C") (Lavišius 2016). Many of these new forms are referred to as "B Corps," but in fact, the "B Corp" is a certification mark that can be licensed from B Labs for a fee by new and existing corporate forms (including limited liability corporations and profit corporations) (Moroz et al. 2018).

3.3.4. Summary of the Case Related Facts

All three analyzed supply chains operate in developed markets. The World Bank defines a developed market as a country that is most developed in terms of its economy and capital markets. The country must be high income, but also must include openness to foreign ownership, ease of capital movement, and efficiency of market institutions (World Bank Group 2019).

Market identification is important, given the fact that most of the research in the social entrepreneurship domain is done on emerging markets and developing economies. The World Bank defines an emerging market as a country that has some characteristics of a developed market but does not satisfy standards to be termed a developed market. This includes countries that may become developed markets in the future or were in the past (World Bank Group 2019). Historically, social enterprises are treated as part of the supply chain used to bring benefits for the base-of-the-pyramid because other members of the supply chain may exclude such populations.

When describing the cases analyzed in this research, we also have to mention the link between social capital and geographic location. Evidence and research have shown a different level of social capital in different nations and cultures. All three countries where our studied supply chains are among so-called low context cultures. To show the differences, we can use the high-low context construct (Hall 1976) to predict variances in odd versus even ending practices in western versus non-western countries (Nguyen, Heeler, and Taran 2007). The high-low context concept refers to the extent to which communication is carried by explicit, verbally expressed messages or is embedded in context in which the message is conveyed (Hall 1976). Low context societies attach more meaning to the message itself (Nguyen et al. 2007). Among low context cultures are, for example, Australian, Dutch, English Canadians, the English, Germans, and United States cultures.

Herrmann-Pillath (2010) studied the embeddedness of social capital into different cultural, political, and societal contexts. According to Herrmann-Pillath (2010), the effectiveness

of social capital might result from a unique combination of the bridging and bonding type of social capital, which ultimately builds on a culturally specific form of emotionality. Rothstein and Stolle (2008) explored how network indicators of social capital such as aggregated memberships in voluntary associations introduced by Putnam (1993) matter for generalized trust. For example, Protestant countries, countries with a high GDP per capita and high educational secondary enrollment rates, as well as those with fewer ethnic and religious divisions should be better able to develop interpersonal citizen trust than other countries (Rothstein and Stolle 2008) which is one example of the important role of a geographic location..

Case related facts are summarized in Table 3.3.

Table 3.3.: Summary of the Case Related Facts

	Social enterprise 1	Social enterprise 2	Social enterprise 3
Geographic location	Canada	United Kingdom	United States of America
Year of establishment	2017	2015	2017
Business model	Fire prevention training through online and in class seminars with community based supportive network.	Installation and maintenance of active fire protection systems, supply, and servicing of fire extinguishers, fire safety training, fire risk assessments, fire alarms, emergency lighting, and associated fire equipment.	Promotion of fire prevention through the sale of custom made smoke detectors.
Main revenue streams	Online subscription and memberships. Crowdfunding.	Direct sale to end customers.	Profit margin on fire detector sales. Donations
Form of business organization	For-Profit	Non-profit (CIC)	Non-profit
Social entrepreneurial accreditation	No	Yes (CIC) United Kingdom government Act 2004 (Audit, Investigations and Community Enterprise)	No
Other standard accreditations	No	ISO 9000	No
Target beneficiaries	They have clients in the form of civil society organizations: local communities, schools, and fire brigades.	Clients in the form of small and mid-size businesses, fire brigades, schools, and households.	Kids attending preschool and elementary schools in the New York City area and their families.
Number of employees	1	7	1
Number of contract based personnel	2	0	2

Number of volunteers	1	0	1
Description of suppliers	Their suppliers are the providers of learning management software, individual instructors, and manufacturers of the fire safety equipment and fire promotion materials.	Their suppliers are manufacturers of fire extinguishers, fire alarms, emergency lighting, and safety signs.	Their main supplier is the smoke detector manufacturer.
Description of distributors	Their distributors are fire safety related businesses (fire safety system suppliers) fire brigades and individual firefighters.	Their distributors are local property managers, responsible for fire safety.	Their distributors are fire safety related businesses (fire safety system suppliers) fire brigades and individual firefighters.
Analyzed supply chain members	2 suppliers 2 distributors	3 suppliers 1 distributor	1 supplier 3 distributors

Summary of the characteristics of analyzed cases concerning social enterprise criteria and fire prevention criteria is shown in Table 3.4.

Table 3.4.: Summary of the Case Profiles

	Criteria (social entrepreneurial/fire prevention)	Social Enterprise 1	Social Enterprise 2	Social Enterprise 3
Social entrepreneurial criteria	Social enterprise encompasses the activities and processes undertaken to discover, define, and exploit opportunities to enhance social wealth by creating new ventures or innovatively managing existing organizations	X	X	X
	Social enterprise refers to organizations that pursue innovation with a social objective, which can include for-profit, non-profit, or hybrid forms of organizing	X	X	X
	Social enterprise may be differentiated from other entrepreneurial ventures by their focus on addressing social problems rather than on market growth or profitability	X	X	X
	Social enterprises use external partners for financial support in providing a public good.	X		X
	Social enterprise seek to minimize cost and increase revenues through philanthropic donations, earned income, and for-profit activities that serve a social purpose	X	X	X
	Innovativeness, proactiveness, and risk management are key factors in social value creation	X	X	X
Fire prevention	Life Safety – the goal is to prevent injury and loss of life.	X	X	X
	Prevent Property Damage and negative impact on the environment.		X	
	Protection of Operations to continue without interruption.		X	
	Educate the public to take precautions to prevent potentially harmful fires	X		X

As can be seen from Table 3.4., all three social enterprises comply in almost all respects. All three analyzed social enterprises have incorporated at least one fire prevention topic amongst their main missions. Overall, altogether, there are some slight differences amongst the case study companies, and this was helpful from a comparative analysis perspective.

Chapter 4

Chapter 4 introduces the reader to the findings, including propositions based on these research findings. Research propositions presented in this chapter were partially developed prior to data collection and based on preliminary conclusions without searching for cross-links and connections between themes. Complex propositions which connect cross-cutting topics analyzed supply chains, and their environments follow in Chapter 5.

4.1. Findings

This research is based on the qualitative analysis of structured and semi-structured interviews with fifteen members of three supply chains linked to social entrepreneurship and fire prevention. The findings are divided into two sections: themes related to social capital and those related to institutional theory. Hence, through a systematic questioning, coding across informants at various levels, and from various members of supply chains, and by comparing their answers and generated codes, we were able to interconnect individual elements of supply chains, their motives, and mutual relations.

The analyzed social enterprises are all small and relatively young. The same applies to their supply chains. A large part of the analysis presented in this work was about motives; why stakeholders enter the supply chain. We focused on social enterprises as well as suppliers and distributors. All three analyzed social enterprises answered positively on all 11 structured questions – reasons why to enter the supply chain (see Fig. 4.1.). Results were, to some extent, expected.
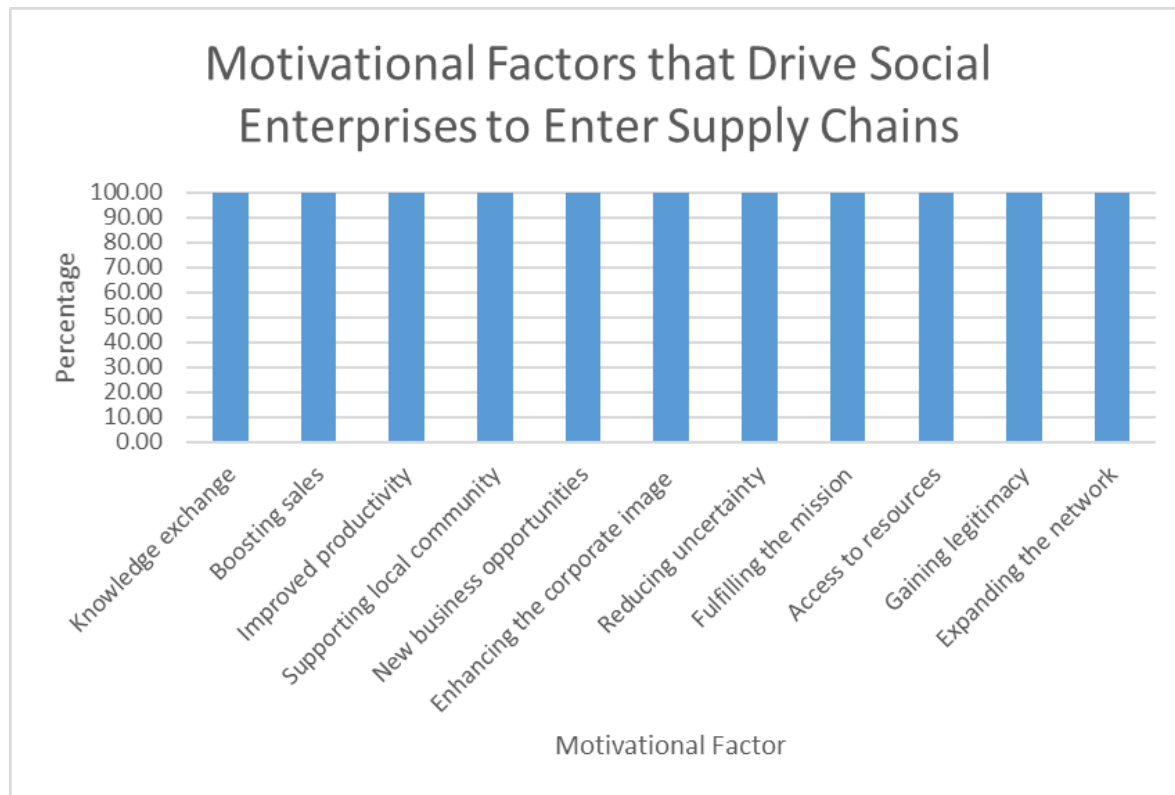
Figure 4.1.: Reasons to Enter the Supply Chain from Social Enterprise Perspectives

Similarly, suppliers and distributors have been asked about motivational factors for entering the supply chain. Results are shown in figures 4.2. and 4.3.
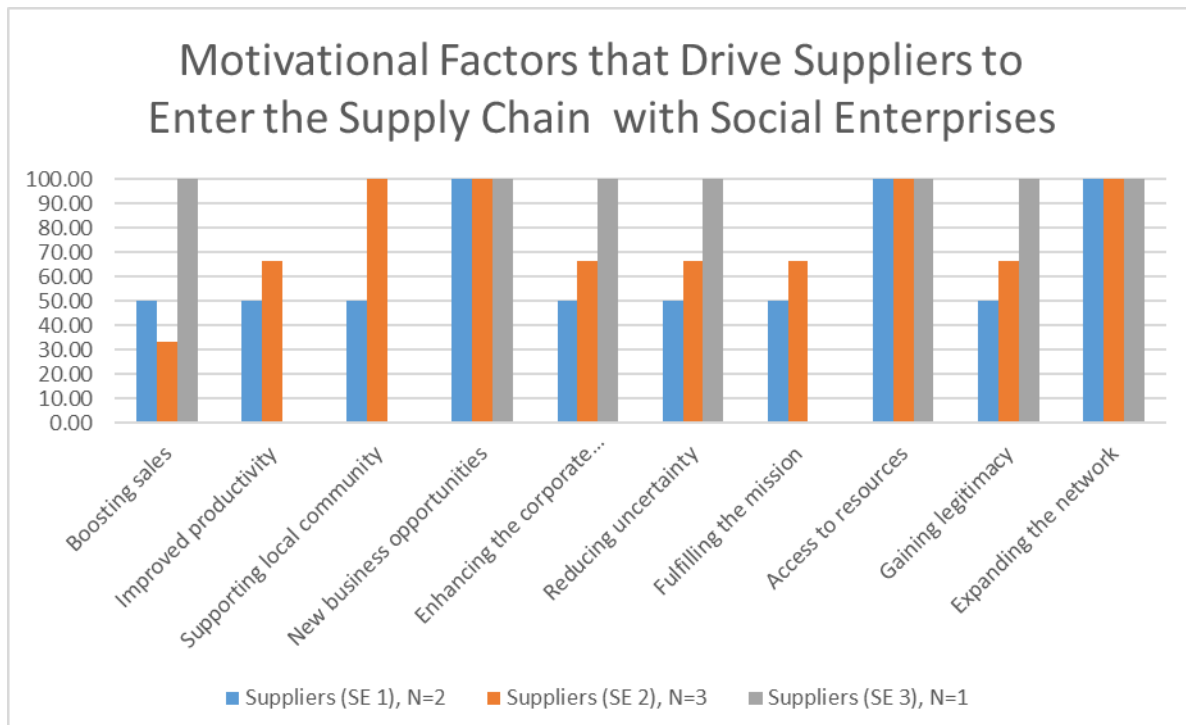
Figure 4.2.: Reasons to Enter the Supply Chain from Suppliers Perspectives
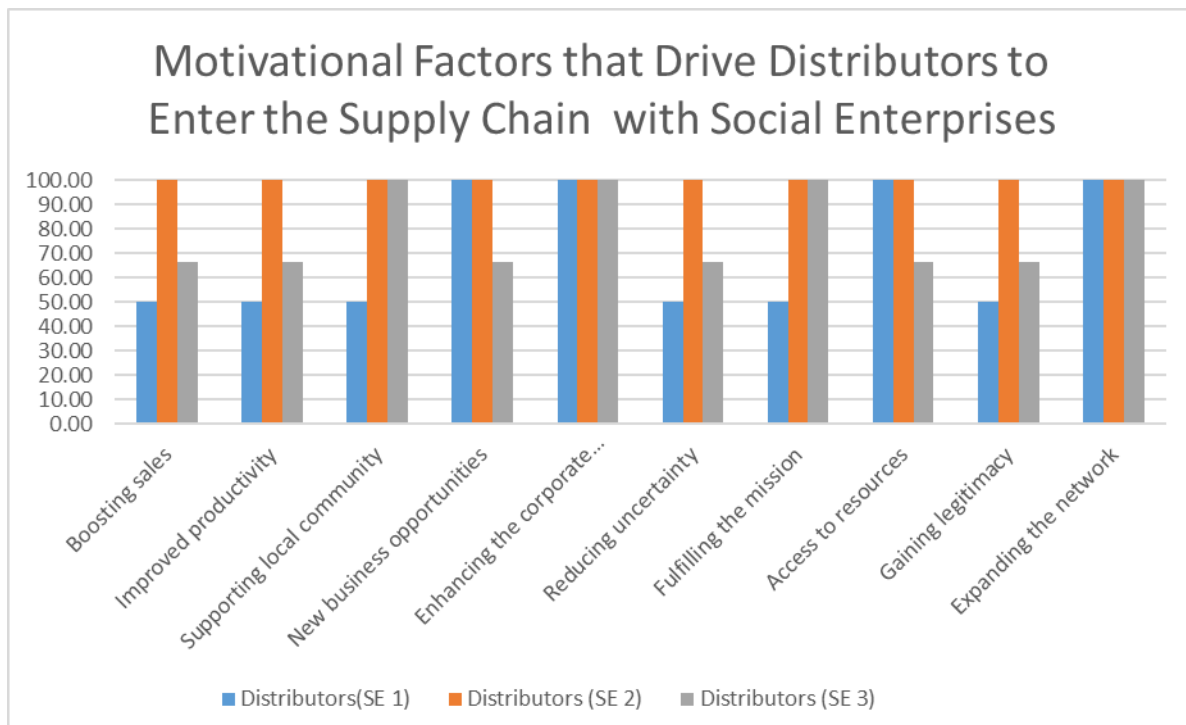
Figure 4.3.: Reasons to Enter the Supply Chain from Distributors Perspectives

4.1.1. Social Capital

During the interviews, we targeted three social capital constructs: structural, relational, and cognitive. To measure social capital, we draw on Putnam's well-established (Putnam 2000) social capital index based on 14 variables incorporated in our questionnaire. Empirical results reveal that the three dimensions of supply chain social capital – structural, relational, and cognitive – had significant effects, directly or indirectly, on supply chain integration and performance, and supply chain integration played a mediating role in the relationships between structural capital and firm performance, between relational capital and firm performance, and between cognitive capital and firm performance as suggested by Yim and Leem (2013).

The structural capital dimension includes properties of the network, including personal linkages and the overall pattern of connections. This dimension has been described as "who you reach and how you reach them" (Burt 1992).

Structural social capital elements were captured from the interviews in the form of quotes to provide a richer understanding. They are shown in in Table 4.1.

Table 4.1.: Structural Social Capital Elements

Supply Chain Member	Structural Social Capital Elements
Social entrepreneur	− joining the entrepreneurial business program − meeting social entrepreneurs and partnership with them − looking for other social enterprises to fit with us and encourage them to be sustainable − following the rules and standards − trying to educate people − partnering with the local TV station − pairing of Red Cross with Kidde − director of Red cross was a firefighter − knowing influential people
Supplier	− need political support − don't have that intelligence − the experience started with the NFPA Smokey bear − no established educational system − working with fire life safety educator − also a trainer − excited about the system she was using

	− I feel quite alone in this
Distributor	− obvious to partner with fire service − the problem I see is partnering with large companies

The relational dimension is the ongoing personal relationship based on a history of interactions, respect, friendship, personal, and emotional attachment. This dimension is strengthened through trust and norms and includes obligations and expectations.

Relational social capital elements were captured from the interviews in the form of quotes to provide a richer understanding. They are shown in Table 4.2.

Table 4.2.: Relational Social Capital Elements

Supply Chain Member	Relational Social Capital Elements
Social entrepreneur	− acknowledged and recognized company − legal organizations − feel way more trusting towards social enterprises than the normal company − not delivering sustainable solutions − corruption as far as I concern − stealing from me the ideas
Supplier	− always looking where we can find a social enterprise − easier to partner with social enterprise − follow the environmental policy − follow environmental standards − improve their social impact − back them up with honesty and integrity

The cognitive dimension includes shared value, interpretations, shared language, shared codes, and systems of meaning among parties (Nahapiet and Ghoshal, 1998). These three dimensions are highly interrelated (Avery, 2010).

Cognitive social capital elements were captured from the interviews in the form of quotes to provide a richer understanding. They are shown in Table 4.3.

Table 4.3.: Cognitive Social Capital Elements

Supply Chain Member	Cognitive Social Capital Elements
Social entrepreneur	− learned a lot from them − Social enterprise has more values − values are so much in line − treat their employees is way more friendly − accreditation policy, ISO 14001 − assure that all the partners in the supply chain are environmentally friendly − partners have somehow of the environmental policy in place − have to share resources − works with us only because we are a social enterprise − flowing the same policy
Supplier	− it will improve the value − we have high values − improve their values − people that believe − they have to truly believe in the cause − not interested in prevention
Distributor	− no established educational system − nobody understood what it is all about

The elements of social capital fort each supply chain and social enterprise are shown below.

Social capital elements for the supply chain of SE 1 are shown in Figure 4.4.

Structural Social Capital, SE 1

Social Entrepreneur	Supplier	Distributor
follow rules and standards, trying to educate people, partnered with the local TV station	no established educational system, working with fire life safety educator, also a trainer	obvious to partner with fire service

Cognitive Social Capital, SE 1

Social Entrepreneur	Supplier	Distributor
treat their employees is way more friendly, accreditation policy, ISO 14001, assure that all the partners in the supply chain are environmentally friendly	improve their values, people that believe	no established educational system

Relational Social Capital, SE 1

Social Entrepreneur	Supplier	Distributor
feel way more trusting towards the social enterprises than the normal company, not delivering sustainable solutions	follow environmental standards, improve their social impact	

Figure 4.4.: SE 1 Social Capital Elements

Social capital elements for the supply chain of SE 2 are shown in the picture below (see Figure 4.5.).

Structural Social Capital, SE 2

Social Entrepreneur	Supplier	Distributor
joining the entrepreneurial business program, met a few social entrepreneurs and partnership with them, looking for other social enterprises to fits with us and encourage them to be sustainable	need political support, don't have that intelligence, experience started with the NFPA Smokey bear	problem I see is partnering with large companies

Cognitive Social Capital, SE 2

Social Entrepreneur	Supplier	Distributor
we learned a lot from them, social enterprise has more values, values are so much in line, works with us only because we are a social enterprise, flowing the same policy	it will improve the value, we have high values	nobody understood what it is all about

Relational Social Capital, SE 2

Social Entrepreneur	Supplier	Distributor
acknowledged and recognized company, legal organizations	always looking where we can find social enterprise, follow the environmental policy	we are obliged to the community

Figure 4.5.: SE 2 Social Capital Elements

Social capital elements for the supply chain of SE 3 are shown in the picture below (see Figure 4.6.).

Structural Social Capital, SE 3

Social Entrepreneur	Supplier	Distributor
partnering with for profits, director of Red cross was a firefighter, because you know somebody	excited about the system she was using, I feel quite alone in this	it seems important to us to partner with SE

Cognitive Social Capital, SE 3

Social Entrepreneur	Supplier	Distributor
partners have somehow of the environmental policy in place, have to share resources	they have to truly believe in the cause	

Relational Social Capital, SE 3

Social Entrepreneur	Supplier	Distributor
trust, easier to partner with social enterprise	back them up with honesty and integrity	

Figure 4.6.: SE 3 Social Capital Elements

4.1.2. Institutional Theory

Increasing empirical evidence suggests organizational actions are not always driven by economic efficiency considerations, contrary to the rational decision making viewpoint dominant in the field. Institutional theory, examining the causes of isomorphism within organizations, provides an alternative viewpoint to the adoption of strategies and practices in managing operations and supply chains. Applications have so far been limited to few topics, such as quality management and adoption of electronic tools.

Coercive isomorphism stems from political influence, and organizational legitimacy often conveyed through laws, regulations, and accreditation process (or outside agency requirements). Normative isomorphism is associated with professional values, and mimetic isomorphism is copying or mimicking behaviors that are a result or organizational response to uncertainty. By examining the organizational field for the presence of these forces and measuring the extent of their sources at various points in time, one can explain convergence on regular practices and institutionalized behaviors, or how an organizational field becomes institutionalized around a particular idea or practice.

The coercive, mimetic, and normative forces present in the field dictate institutionalization and theoretically produce an environment that introduces organizational conformity, or homogeneity, through pressure to appear legitimate, competition, mandates associated with funding, and influential professional group and network values.

Our research has shown a relatively high impact on social enterprises on supply chain members. All three constructs of the institutional theory are present in their connections. Institutional theory elements were captured from the interviews in the form of quotes to provide a richer understanding. They are shown in Table 4.4.

Table 4.4.: Institutional Theory Elements

	Coercive Pressures	Mimetic Pressures	Normative Pressures
Social Entrepreneurs	− There should be better codes for fire prevention. − For social entrepreneurs to be visible and	− We feel responsible for the fire safety − The company has changed after becoming a social enterprise and/or	− Fire prevention is required for organizational legitimacy. − For social entrepreneurs to be

	− legitimate, it is important to set and follow the standards. − Fire safety codes - people who make codes and standards make them so complicated, so people don't follow them. People don't understand them.	partnering with social enterprises − Partnering with other social enterprises improves social impact. −	visible and legitimate, it is important to set and follow the standards. − Partnering with partners in the supply chain is important for building legitimacy.
Suppliers	− There should be better codes for fire prevention.	− Yes, there was a change. After partnering with social enterprise, we care more about fire prevention. − The biggest driver of change were educational institutions – new findings of fire risks and fire prevention methods.	− Government control over fire safety measures is not sufficient. − We introduce fire prevention measures learned from social enterprise. The interest product and service developed by social enterprise was big.
Distributors	− We need better codes. We need disciplinary action, and it's not easy to execute this disciplinary action in fire prevention. − Government control over the fire safety codes is no sufficient. The reason why are we in the business is because of that.	− After working with social enterprise, we have changed the focus on the customers. − We still have our traditional customers, but what has changed is that we are so focused on the community.	− Government control over the fire safety codes is no sufficient. The reason why are we in the business is because of that. − We need better codes. We need disciplinary action, and it's not easy to execute this disciplinary action in fire prevention. − We are also trying to educate our customers on the social aspect because it is new to most people

Examples of coercive pressure that would lead to organizational isomorphism include government mandates, a system of contract law, the budget cycle, financial reporting requirements, and regulatory agencies. Often, examples of coercive pressures may also emanate from the formal government laws and regulations about issues like pollution controls, taxation, and accounting rules. Furthermore, coercive pressures entail expressed regulative practices such as rules, assessments, and codes of practices (Nir 2009). All three representative groups of the analyzed supply chains have highlighted the importance of fire safety regulations. They see them as an important element for the promotion of fire prevention as well as for connecting their members.

4.2.   Research Propositions

Research propositions presented in this section were partially developed prior to data collection using the positivistic approach. Some authors, for example. Rowley (2002) believe that the positivist approach provides a firmer foundation for understanding and managing issues such as validity and reliability, and structuring data collection and analysis, and is, therefore, a more straightforward process. This is in contrast to a later approach, in which, insights, propositions, and pictures emerge from the data collection.

Research Question 1: What are the antecedents for social enterprises to join supply chains?

Members in supply chains will have different goals and incentives while entering supply chains. According to Dahan et al. (2010) partners can contribute complementary capabilities - both intangible assets such as knowledge, reputation, and brand, and tangible resources, such as human capital, production capabilities, and market access. We live in a shared-power world in which many groups and organizations are involved in,

affected by, or have some partial responsibility to act on public challenges (Bryson, Crosby, and Stone 2006).

Antecedents under which social enterprise will enter supply chains will influence functioning, and sustainability. Recent developments in the developed countries have presented significant opportunities for growth in national social enterprise sectors (McDermott, Kurucz, and Colbert 2018). At the same time, private sector interest in social responsibility is growing and becoming more nuanced (Carroll 2015; McDermott, Kurucz, and Colbert 2018). One arena in which these two phenomena converge is social enterprise-to-business trade and the presence of the social enterprises in supply chains.

In this study, the analysis of social enterprise links with members of the supply chain is primarily related to social capital. Research (Greening & Gray, 1994; Selsky, 2005) also says that successful partnerships could help social enterprises access a variety of resources and market-based strategies in order to more effectively fulfill their social mission. Fulfilling their social mission seems to be an important precondition which social enterprises have when forming or entering supply chain partnerships.

From this point of view, the antecedents will be explained using social capital constructs. Our qualitative research applying coding schemes has shown that the following social capital constructs are important antecedents for social enterprises to join supply chains (see Table 4.5.).

Table 4.5.: Social Capital Constructs

Social enterprise	Structural Social Capital Constructs	Cognitive Social Capital Constructs	Relational Social Capital Constructs
Social Enterprise A	Education Collaboration Sustainability	Established Policies	Recognition Legal Norms
Social Enterprise B	Education Collaboration	Workers Benefits	Trust No other available sustainable solutions
Social Enterprise C	Partnership Network	Policy Shared Resources	Trust

The roles and significance of individual constructs are explained below. Social enterprises are businesses supplying various products and services. What differentiates them is that they place a firm emphasis on tackling social problems by reinvesting their profits into social or environmental causes. To fulfill their social missions, social enterprises will seek to collaborate with different partners (Henry 2008).

Our research has shown that the supply chain members, within the social enterprise acting as a focal firm, have an excellent affinity for collaboration. In supply chain management, collaboration is defined as two or more autonomous firms working jointly to plan and execute supply chain operations (Simatupang and Sridharan 2005). It can deliver substantial benefits and advantages to its partners (Cao and Zhang 2011). Our research has shown that social enterprises strive for more intensified connections in the supply chain. Supply chain networks, combined with cross sector collaboration, seems to be probably the most effective way of solving social problems. Several scholars (Waddock, 1988; Selsky, 2005; Bryson, Crosby, & Stone, 2006) suggest that most of the major issues confronting our society, including fire safety, require strong cross-sector collaboration, given the shifting roles and relationships of public and private sectors across the globe.

The antecedents for social enterprises to join supply chains will be presented from a social capital perspective. Social capital does not explain solely successful collaborations. Other factors such as laws and regulations, plus, a community's socio-economic conditions create a context that affects the behavior of members of a collaboration. But social capital is a primary ingredient in a collaboration enabling partners to work with each other as an almost automatic response, and aiding them to respond effectively to environmental change.

Structural social capital refers to elements of social structures which create opportunities for the social realization of productive ends. Structural social capital is defined as established roles and social networks supplemented by rules, procedures, and precedents. It gives structure and stability to social transactions. Social entrepreneurs

seek to transform societies at-large, rather than transforming their profit margins, typically sought by classic entrepreneurs.

Social entrepreneurs use a variety of resources to bring societies into better states of well-being. Interviewed social entrepreneurs, who were central to these social enterprise strategies and operations, often mentioned elements of structural social capital as important antecedents as why to become a member of supply chains. An important component of structural social capital is sustainability. All three interviewed social entrepreneurs mentioned sustainability as being very important. Interesting and important was the statement of one social entrepreneur (Social Enterprise 1) shown in Exhibit 1:

Exhibit 1:

"For us, sustainability is very important. It is not just for us; it's also for the future."

The relationship between social entrepreneurship and sustainable development has been addressed by various streams of thought and literature such as ecopreneurship, social entrepreneurship, sustainable entrepreneurship, plus institutional entrepreneurship (Schaltegger and Wagner 2011). In their research Muralidharan at al. (2018) endorsed the importance social enterprises have in promoting sustainability through their sustainable development goals.

In most cases, social entrepreneurship is about providing access to innovations for specifically deprived market segments, especially in the context of base-of-the-pyramid innovations in emerging markets and developing economies (Schaltegger and Wagner 2011). All three social entrepreneurs highlighted collaboration and partnership as important reasons for entering supply chains. Social entrepreneurs also expressed strong support for the members of the supply chain. A statement given by Social Entrepreneur 2, shown in Exhibit 2, was:

Exhibit 2:

"*It's extremely important to work with our suppliers. When you start a new business capital is still an issue. And having good suppliers that understand that and hopefully help in some way financially and also to spread the word and this is where the leveraging comes in. For instance, if I chose a Xerox company, to*

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print materials for the community, they will give us a discount of some sort and also if they are looking for some recognition in the program we will allow them to place their logo, their signature as a support group for the program. The supplier is here used for profit and also for leveraging their own needs".

With the growth of social entrepreneurship, there has also been a parallel increase in the level of partnership development in executing visionary ideas. Some researchers call this the collaborative movement (Ryan 2015). The word collaboration was among the most common expressions that appeared in the social entrepreneur's responses. Two out of the three social entrepreneurs (SE 1 and SE 2) also mentioned collaboration in connection with the social entrepreneurial incubators and entrepreneurial pathway education, which played an essential role in past experiences and is an important evidence of a structural social capital.

It can be assumed that such entrepreneurial incubators and prior education, plus entrepreneurial training and networks played a significant role in furthering social enterprise careers. Previous research (Jenssen and Koenig 2002) has shown that social networks and entrepreneurial education have significant effects on entrepreneurship. In most of this research, it is assumed that network features, such as the strength of relationships, determine that network resources. In two out of three analyzed social entrepreneurs, collaboration began before the establishment of the social enterprises. One of the interviewees, social entrepreneur 2 directly emphasized the importance of entrepreneurial networks and education shown in Exhibit 3:

Exhibit 3:

"After joining the entrepreneurial business program, I met a few social entrepreneurs. I learned a lot from them".

According to research (Turner and Gianiodis 2018), people who have received entrepreneurship education perform better at running their businesses. Entrepreneurship training, which aims to equip participants with relevant knowledge and skills (Katz 2007), is regarded as a practical means to promote entrepreneurship among young people (Peterman and Kennedy 2003). Based on Anderson and Jack (2002) the nature of social capital presents a conceptual puzzle in that it is said to be both glues, which forms the

structure of networks, and at the same time a lubricant that facilitates the operation of networks.

Proposition 1: Structural social capital with established networks will encourage social enterprises to become part of supply chains.

Cognitive social capital is a dimension of social capital which provides shared representations, interpretations, and systems of meaning among parties (Nahapiet and Ghoshal 1998). These concepts also refer to cognitive schemes and systems of meaning as exhibited in common vocabulary and narratives (Davenport and Daellenbach 2011). Cognitive social capital is the shared language and codes which provide a foundation for communication (Gooderham 2007).

Given the natures and missions of social enterprises, they want to connect with supply chain members (suppliers, distributors, or other social enterprises) who are showing their socially responsible focus. Interviewees emphasized the importance of workers benefits. Social entrepreneur 2 said (as shown in Exhibit 4):

Exhibit 4:

"Personally I think that values are so much in line. The way how they treat their employees is way more friendly and more approachable. You have some legal organizations that are so roofless. I feel way more trusting towards social enterprises than the normal company."

Usually, net profits go towards workers' benefits within social enterprises. Treatment of supply chain members is an essential factor affecting social enterprise entrance into a supply chain.

Cognitive social capital can assist partners in fully understanding each other's considerations and enhancement of green technology, standards/norms, or knowledge combination to improve performance (Lee 2008). For effective and efficient knowledge transfer to occur, firms may have to manage and build social capital proactively (Inkpen and Tsang 2005). The conditions identified can be viewed as predictive conditions and

provide guidance for firms seeking to exploit network knowledge opportunities (Inkpen and Tsang 2005).

One of the interviewees, Social Entrepreneur 1, pointed out (as shown in Exhibit 5):

Exhibit 5:

"When searching for partners, we are looking for those who treat their employees friendlier."

Social enterprises are nonprofit private organizations which provide goods or services that are directly related to their explicit aim to benefit the community and their employees (Guclu, Dees, and Anderson 2002). Within the social enterprise's environment, all employees are paid on the fair based principle, payments reflect different work patterns and hours (Thompson and Doherty 2006). A common practice is that the overall wage bill meets the industry average, but that money is then shared out differently.

In describing and understanding the connections between workers benefits and social entrepreneurship topics, we noticed that the role of supply chains in the social entreprenurial mission needs future exploration and attention. According to some researchers (Graddy-Reed and Feldman 2015), social practices positively influenced the decision to provide support, indicating a deepening of commitment during the 2007 - 2008 US economic recession. Other researchers suggest that many social enterprises responded to the downturn by increasing support to the environment, their local community, or their employees (Wang 2018).

Social enterprises want to work with supply chains members with established social responsibility policies. During the interviews, the Social Entrepreneur 3 stated (as shown in Exhibit 6):

Exhibit 6:

"We rather partner with social enterprises than any other businesses." "We are always looking for other social enterprises to fit with us."

According to Singh et al., (2017), the combination of social and business goals, can be managed in various ways. Social entrepreneurs can conceptualize, innovate, and implement CSR companies' projects. Companies can support social enterprises in order to achieve their social missions. As seen from our examples, social entrepreneurs are very selective in choosing partners.

Bourdieu and Wacquant (1992) argues that social capital is the aggregate of the actual or potential resources which are linked to possession of a durable network of more or less institutionalized relationships of mutual acquaintance and recognition or in other words, group membership. Supply chains combined with social enterprises and profit driven businesses provide their members with collective capital support and provide credit (Esfandabadi et al. 2016). While connecting with supply chain members, social entrepreneurs are also looking for established standards, such as ISO 14001[8].

Higher values of cognitive social capital were found in social entrepreneurs in the second and third cases. Social enterprise 2 is the oldest among the case studies. In this social enterprise, we have generally observed higher social capital value. The cognitive dimension of social capital concerns the degree to which the individuals involved have a common understanding and a shared vision (Sørheim 2003). Gupta, MacMillan, and Surie (2004) highlighted entrepreneurial vision creation, commitment building, and identification of limitations as the most critical challenges of entrepreneurial leaders.

Proposition 2: Social enterprises prefer to become part of supply chains if they share their social vision with other members of supply chains.

The key aspects of the relational dimension of social capital are trust and trustworthiness, norms and sanctions, obligations and expectations, and identity and identification. All three analyzed social enterprises were established less than three years ago. Because of their relatively new presence in their communities, they are yet to be recognized. One of the social entrepreneurs highlighted recognition as an important motivator for why to

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[8] ISO 14001 is the international standard that specifies requirements for an effective environmental management system (EMS). It provides a framework that an organization can follow, rather than establishing environmental performance requirements.

join the supply chain. Being part of the supply chain is also an opportunity to gain a competitive advantage. As start-up companies, many social enterprises do not have a long-term financial track record, or they may need help with the onboarding process. For these companies, supply chain management may often have characteristics that could lead them to be sourced to reach a temporary advantage, if not a sustained competitive advantage (Barney 2012).

Relational social capital refers to the assets which are created and leveraged through relationships (Nahapiet and Ghoshal 1998). Previous studies indicate that higher supply chain relationships assist companies in reducing production costs, increasing flexibility, and improving the efficiency of supply chain operations (Vachon and Klassen 2006). Relational capital could make partners more willing to share knowledge and resources. Interactive relationships based on trust and reciprocity inspire partners to exchange knowledge such as fire prevention and green initiatives.

Two social entrepreneurs (SE 2 and SE 3) recognized trust as an important antecedent for entering the supply chain. Factors influencing trust have received much attention in both the academic and business environments. According to several scholars (Morgan and Hunt 1994; Cavusgil et al. 2004; Wu et al. 2004; Gounans 2005; Ho and Weigelt 2005; Lee and Dawes 2005; Fawcett, Jones, and Fawcett 2012), successful supply chain performance is based on a high level of trust among supply chain partners.

Interestingly, there was one social entrepreneur (SE1) who specifically stressed the importance of shared norms. According to the interviewee, shared norms are important to protect intellectual property within the organization. Social entrepreneur 1 stated (as shown in Exhibit 7):

Exhibit 7:

"The first risk in my mind is the competition. Other companies like insurance were stealing from me the ideas."

Shared norms are important for the collaboration of people to build larger networks with profound personal implications, which are important in addressing social problems. As it

appears, shared norms, are also relevant when social enterprises connect with other members in supply chains.

Proposition 3: Social enterprises prefer to become part of supply chains if they recognize elements of relational social capital in the supply chain.

Social enterprise mission success mainly depends on proper strategies and methods applied during partner collaboration with supply chain members. Social enterprises need to develop partnerships to achieve social change (Vurro, Dacin, and Perrini 2010). Empowering beneficiaries as the potential stakeholders is the best way to achieve social entrepreneurial desired outcomes (Murphy, Perrot, and Rivera-Santos 2012). Some drawbacks have to be considered. A major risk in partnering organizational names and reputations (Austin 2000).

Although the antecedents of corporate decisions to start implementing socially responsible approaches are not well understood, we asked social entrepreneurs about the conditions (antecedents) for entering the supply chain. Partnering with supply chain members that promote socially responsible orientation was amongst the most common responses (as shown in Exhibit 8).

Exhibit 8:

The problem I see is partnering with large companies like large for-profit companies. I feel it is my social responsibility to improve fire prevention. When I look at these corporations, they are giving away so much money, but they don't have quality products.

Based on our findings, companies place importance on social enterprise identification and proper market recognition.

Proposition 4: Social enterprises prefer to become part of supply chains containing socially responsible members.

Research Question 2: What are the antecedents for supply chain members to partner with social enterprises?

For companies entering supply chains, there is the possibility of enhancing corporate image and brand reputation. This boosts sales, prevents potentially harmful public confrontations and taps into new markets (Kolk, van Dolen, and Vock 2010). In the commercial sphere, partnering with successful members maximizes profits. Based on Kolk, van Dolen, and Vock (2010) by joining forces, organizations may acquire access to 'critical competences' that they do not have individually (Kolk et al. 2010).

When connected in the supply chain, social enterprises and corporations alike may benefit, and social impact could be increased. Recently, we see an increasing trend of supply chains with an essential social entrepreneurial role. Unilever supports social enterprises in 19 projects across nine countries, which have so far benefited over 400,000 people, with 8,500 trained and 110,000 gaining repeat access to high-impact products and services (Başar 2018).

As suggested by Arya et al., (2015), commercial enterprises will be driven by the market share and increased profit. Companies look to collaborate with local organizations to signal to the broader community that we are helping their citizens. They want to show that they are part of the community so they can maintain their positive brand' (Meyskens, Carsrud, and Cardozo 2010).

Firms in highly competitive markets have vulnerable strategic positions because margins are low, and product differentiation is difficult. The resources that firms acquire through the supply chain enables them to share costs or to gain differentiable product technologies which outweigh the disadvantages of alliance formation (Eisenhardt and Schoonhoven 1996). Resource scarcity may also be fundamental in entering the supply chain and lead to the emergence of mutually supporting relationships between organizations, as in the case of strategic alliances (Sakarya et al. 2012).

By associating with social entrepreneurs, the companies can not only fulfil the expectation of CSR but also can enhance their corporate reputation (in the communities) and build a

brand. This is similar to the notion of strategic CSR wherein companies' ingrate their social goals with business goals, benefiting both business and society (Porter and Kramer 2002; Singh, Majumdar, and Saini 2017)

According to Singh et al. (2017), social enterprises can conceptualize, innovate, and implement CSR projects of the companies, and companies can support them to achieve the social mission. It is a connection in which both sides gain. In developing countries, social entrepreneurs can motivate and organize community members as a group to participate in their development activities. Often, social entrepreneurs can be linked to the local community and, as such, they can provide opportunities for others (Singh, Majumdar, and Saini 2017).

The structural dimension of social capital includes properties of the network, including personal linkages and the overall pattern of connections (Burt 1992). Some researchers have analyzed outcomes of structural social capital, i.e., as a mediating variable, for the development of an optimal external knowledge acquisition process (Ortiz, Donate, and Guadamillas 2017). Among their findings, organizations must understand that "good" management of their inter-organizational structural social capital may allow companies to develop dynamic capabilities related to the identification and acquisition of unique and complex knowledge, so that they can expand, reconfigure and adapt their resources to changes in their environment (Eisenhardt and Schoonhoven 1996; Ortiz et al. 2017).

Most of a firm's knowledge exists in the minds of its employees. Structural capital is any tool, process, or information that helps a firm to retain knowledge or use it to achieve objectives. Among the essential elements of structural capital, an SE 1 emphasized education and collaboration. Members of a supply chain learn a lot from social enterprises. This is especially true where social entrepreneurs are experienced in the area of fire prevention. The average time when interviewed social entrepreneurs are engaged in fire prevention is 11 years. According to some researcher's education is one of the main predictors of structural social capital (Fiorillo 2011). Also, all three analyzed social enterprises highlighted the importance of education as a part of their competitive advantage.

Moreover, for the company to make the best strategic use of the knowledge acquired from the networks, it is crucial that the development of cohesive links with the agents of these organizations be oriented to the improvement of the capability to identify valuable knowledge (Ortiz et al. 2017). Education, partnership, collaboration, and standardization were among the important factors addressed by interviewed social entrepreneurs. On the other hand, the members of the supply chains emphasized lack of knowledge and experiences, established fire prevention system, and partnership as important reasons to enter the supply chain. Structural capital is intellectual capital that is independent of employees.

> **Proposition 5:** The presence of social entrepreneurial structural social capital is a decisive factor for supply chain members to partner with social enterprises.

The members of the supply chain have different interests when they connect with social enterprise. According to some researchers, commercial organizations collaborate with social enterprises to increase their social responsibility efforts (Di Domenico et al., 2010; Tracey et al. 2005).

One of the suppliers of the SE 1 saw the support which is provided by the social enterprise (network, expertise) as an important factor for partnering in the supply chain with the social enterprise. One view, known as the 'bonding' view of social capital, posits that social capital arises from the network to which a member belongs where strong and reciprocal bonds between most or all members form as a result of frequent interaction (Coleman, 1990). Such cohesive networks support the development of trust, norms of reciprocity, and shared identity among members, facilitating collaboration and knowledge sharing through informal and trust-based governance mechanisms that enable intense interactions (Hansen, 1999; Kogut & Zander, 1992; Nahapiet & Ghoshal, 1998).

The importance of support was highlighted by the distributor 1 of a Social Enterprise 2, where the business owner stated (as shown in Exhibit 9):

> Exhibit 9:

"We need political support to run our business and promote fire prevention. We can see the support coming from the social enterprise we partner with."

Several authors (Putnam 1995; Onyx and Bullen 1998) demonstrated that social capital, which consists of general trust, confidence in government, and group membership, play a significant role in institutional and non-institutional political participation, civic engagement and societal welfare.

Three suppliers highlighted the importance of the experiences social enterprises have in addressing fire prevention problems. Also, they expressed the willingness of social entrepreneurs to share their knowledge and skills through social interaction. Chang et al. argued that social interaction ties among members of a virtual community provided a cost-effective way to share knowledge. The more these social interactions build, the higher the intensity, frequency, and breadth of the knowledge exchanged (Chang and Chuang 2011).

Distributors have emphasized the benefits of working with social enterprises. A SE 3 distributor has stated that it is logical for them to work with a social enterprise instead of a large for-profit business. Among the essential reasons, experience, knowledge, social mission, and flexibility were mentioned. SE 3 distributor stated (as shown in Exhibit 10):

Exhibit 10:

"*When I see for-profit companies focused on social entrepreneurship as much as nonprofits, I have hope for the future of our world*".

According to Ryan (2015), companies often center their jobs on finding creative opportunities in collaboration with social entrepreneurs.

The relational dimension deals with the nature of the connections between individuals and organizations. The critical facets of this dimension are trust, norms, obligations, expectations, and identification. One of the suppliers of each social enterprise cited environmental sustainability as an important motivation to collaborate with social enterprises.

Some suppliers stated legitimacy as necessary for their sustainable business. According to a study performed by Wang & Sarkis (Wang et al. 2013), there is a direct relation between green practices in the supply chain system and progressive financial performance. The development of relational social capital, i.e., trust is a fundamental requirement for successful external knowledge acquisition in knowledge intensive industries.

> **Proposition 6:** The presence of social entrepreneurial relational social capital is a decisive factor for supply chain members to join social enterprises.

Social enterprise procurement is an emerging market, and introducing it as an everyday corporate initiative revealed challenges. More importantly, consumers today are more aware of the origins of their daily products. The goal of current-day entrepreneurs and socially responsible corporations is to figure out how to produce materials with ethical supply chains. This is based off the assumption that if the social and environmental impact of the supply chain is positive, it will have a trickle-down effect, benefiting the folks making them (and in many cases, the environment).

The focus in socially responsible supply chains is rather comprehensive: employee treatment, employee wages, contents of materials plus their environmental impact such are their packaging. Firms mostly use supply chains to gain access to other firms' valuable resources (Das and Teng 2000). Our research suggests that supply chain members often use social suppliers to enhance client relationships, not only with public sector clients but also with corporate clients who find this to be an important part of their corporate responsibility programs. Our findings also show that when there is a supply gap, and a social enterprise can compete on cost, quality, and service while doing good for the community supply chain members are likely to include social enterprises.

> **Proposition 7:** Social capital of a social enterprise is positively associated with firm value.

Legitimacy is a central concept in organizational institutionalism. The term 'legitimacy' dates back to the dawn of organization theory; however, for most of the past century, research on legitimacy emerged only slowly and was fragmented across several distinct social science literatures.

Since 1995, however, the body of relevant scholarship has grown rapidly and in a variety of directions. Much of this new literature (like much of the literature that preceded it) has been highly theoretical, invoking legitimacy as an explanatory concept rather than examining it as an empirical property (Deephouse and Suchman 1995). According to Weber (1978), legitimacy can result from conformity with both general social norms and formal laws. The importance of legitimacy was highlighted by social entrepreneur 2, who stated (as shown in Exhibit 11):

Exhibit 11:

"I believe, yes. It is legitimate because they show that they are caring for their employees, not just at work but also home. They have to show value. The president or your janitor, they are all equal, and if one doesn't come to work one day as negligence, it affects them all. Our customers and business partners value the way how we do business.

Proposition 8: Social enterprises with greater legitimacy and social capital attract the interest of future supply chain members and attention from local community.

Research Question 3: What roles do external institutional pressures play in social enterprises joining supply chains?

Institutional theory posits that organizations are influenced by external or internal pressures while forming their structures (Dimaggio and Powell 1983; Urbano, Toledano, and Soriano 2010; Nurdin et al. 2017). According to institutional theory, institutions work as forces upon individuals and organizations by creating social pressures and restrictions, plus setting boundaries for what is accepted and what is not. Such influences can appear as normative, coercive, and mimetic pressures (Davidsson, Hunter, & Klofsten, 2006).

As suggested by Zhu and Sarkis (2007), the existence and response to various institutional pressures will cause relationships between the adopting practices and final performance. Our study focuses on external forces that motivate social enterprises to join supply chains. Different pressures drive social enterprises to become members of supply chains. Among the three analyzed social enterprises, we recognized all three elements of institutional theory: coercive, mimetic, and normative pressures. Fire safety is an important example of a potentially beneficial connection and institutionalized pressure between social enterprises and supply chains.

Coercive institutional pressure derives from organizations facing changing cultural and societal expectations. After all, companies operate in society and thus, inevitably come under both formal and informal pressure from other organizations, such as government agencies and regulatory standards (Dimaggio and Powell 1983). Government agencies perfectly illustrate how powerful groups may influence the actions of an organization (Rivera 2004). All three interviewed social entrepreneurs in our research stated there should be better codes and standards for enforcing fire prevention which shows the lack of coercive pressures.

Fire codes, globally, are facing a deregulation process (Tombs and Whyte 2013) which is just another example of a lack of coercive pressures. The purpose of deregulation is to open the doors of a competition encouraging other businesses to offer consumers wider choice of services and/or products. Fire regulations are designed to protect people in

situations where they cannot protect themselves. For individuals with high socio-economic status, regulations can be a nuisance that limiting their options and, potentially, their profits. To reduce costs while supporting private investments, governments around the world are reducing fire safety requirements (Tombs and Whyte 2013). Under code deregulations, fire rated building cladding, means of egress, fire detection, fire suppression systems, and other fire safety measures are less often required or controlled by local or federal authorities. Fire safety codes can be defined as coercive institutional pressure and seem to be a moderator in this research. Below is a comment from Social Enterprise 1 supplier about the sufficiency of local fire codes (as shown in Exhibit 12):

Exhibit 12:

Do you think there should be better codes and standards for enforcing fire prevention? "Yes, I do believe in that. I am not sure what ramifications are from any legal aspect of fire prevention, but yes. I think that we need a disciplinary action and it's not easy to execute this disciplinary action in fire prevention. On the positive side where we come in is that we prevent that fire from happening".

Normative pressures are defined as social pressures on organizations and their members to conform to certain norms (Dimaggio and Powell 1983). They occur because of professional codes, which presume that professionals will abide by specific guidelines that are aligned with the conventions of formal education and the professional community. Due to social legitimacy, each firm is expected to consider or follow standards, norms, and expectations of its external stakeholders. In general cases, demand from customers shapes a core normative pressure (Hall 2000; Zhu and Sarkis 2007). The social entrepreneur 2, the CEO of the largest social enterprise in our research emphasized (as shown in Exhibit 13):

Exhibit 13:

"*Is it easier to partner with a social enterprise, where the benefits are. Social enterprises have more values; it's all about the commitment. There is a lot about doing good in the community. We would rather be a partner with the company like that. Personally I think that values are so much in line. The way how they*

treat their employees is way more friendly and more approachable. You have some legal organizations that are so roofless. I feel way more trusting towards social enterprises than the normal company."

In his seminal work, Scott (1995) adds that patterns of interaction become defined by shared systems of meaning, which establish appropriate relationships and behavior. They argue that organizations develop categories of interactions, which become objectified and thus constitute social reality. Organizations act following this reality to reduce ambiguity and uncertainty (Scott 1995 and 2008). Over time these shared understandings become reinforced by regulations which are enforced coercively and normatively by state agencies and by professional associations.

Mimetic pressure arises when an organization copies other successful competitors within the given industry. Since organizations are instilled within social networks (Dimaggio and Powell 1983), companies in these networks tend to mimic the behaviors of other network members. Among the essential reasons why companies become part of supply chains is the use of shared knowledge and successful fire prevention models. As competition increases, social enterprises place more value on intellectual property and all of the advantages inherent in participating supply chains. Social Entrepreneur 1 emphasized the importance of competition and intellectual property protection (as shown in Exhibit 14):

Exhibit 14:

"*The first risk in my mind is the competition. Other companies like insurance were stealing ideas from me".*

Social entrepreneurs see social mission statements to be the norm. Norms form expectations which drive actions within an organization. Norms can affect institutional environments in different ways. Some norms apply to a wide range of individuals, whereas others only apply to some individuals in specific roles (Scott, 2001). Norms do not only constrain behavior, as described above. They can also give specific responsibilities and privileges to certain members. As Scott (2001) argues, this enables members to act without seeking a direct mandate from other organizational members.

Instead, their mandate is inherited in their social position. According to DiMaggio and Powell (1983, p. 150), the phenomenon that organizations resemble one another (isomorphism) can be attributed to legal or political regulatory pressures ('coercive'), copying behaviors resulting from organizational uncertainty ('mimetic') or normative pressures initiated by professional groups ('normative'), rather than to functionalistic strategies.

Proposition 9: Legal and regulatory process provide a beneficial basis for supply chain creation.

Research Question 4: Do social enterprises contribute to supply chain sustainability and bring legitimacy to supply chains?

Social enterprises, like almost all organizations, continuously strive for external legitimacy (Weidner, Weber, and Göbel 2019). The term legitimacy was defined by Parsons (1956, 1960) and then Weber (1978) as a state of congruence towards laws, rules, and social values. Scholars of social theory, organization, and the resource-based view theory introduced the notion of legitimacy in their theories (Johnson, Smith, & Codling, 2006; Ruef & Scott, 1998; Salancik & Pfeffer, 1978; Suchman, 1995). In the late 1970s, pioneers of the neoinstitutional approach, such as Meyer and Rowan (1977) and Zucker (1977), while analyzing the ability of an organization to achieve survival, stressed the importance of expressing behavioral patterns conforming to standards, rules and beliefs of the reference context, in addition to more established factors such as organizational efficiency.

The topic of legitimacy centers around the social environment in which the ventures operate. Each venture is operating in a social environment, constituting different segments. These segments are based on the location, political and regulatory conditions, industry, financial, or technological preferences. The conformity to expectations any number of these makes a venture legitimate (Deephouse, 1996; Kostova & Zaheer, 1999; Ruef & Scott, 1998; Bitektine and Haack 2015).

Similarly, the environment in which the venture operates becomes a larger entity, which is called a social system. Although there is a wide range of definitions for this system, we prefer to see it as an underlying component of the environment made up of interrelated parts (Zimmerman & Zeitz, 2002b; Zucker, 1987). The linkage patterns among these parts are shaped by values and norms (Zucker, 1987). A company tries to make a path between the social values of its operations and the norms of the social system. The congruence between these two value systems brings legitimacy (Dowling & Pfeffer, 1975) and helps new ventures to overcome their liability-of-newness (newly established companies). As a result, these ventures may have more chance of survival (Singh, Tucker, & House, 1986). Legitimacy is defined by authors from different perspectives such as institutional theory

(Oliver, 1991; Suchman, 1995a), resource dependence theory, organizational ecology or even social psychology (Bitektine, 2011; Tost, 2011). This variety led t to propose various definitions of legitimacy and to identify several components of legitimacy.

In the context of social entrepreneurship, Nicholls (2006) provides the following definition: legitimacy is "the congruence, in multiple stakeholder judgements, of an organization's perceived actions within expectations of its performance." Institutional theories are built around the concept of legitimacy rather than efficiency or effectiveness as primary organizational goals (Dart 2004). From an institutional perspective, legitimacy is even how organizations obtain and maintain resources (Oliver, 1991; Weidner et al. 2019). As legitimacy tells us the way, we believe things should be, apart from any other rational or functional reasons (Dart 2004). We found evidence of this perspective in our interviews with social enterprises. Approximately 73 % of all respondents agreed that legitimacy is important for a successful partnership in supply chains. Their supply chain members acknowledge common values and social acceptability in their activities. Legitimacy was addressed all three social entrepreneurs as an important instrument for collaboration and partnering with various stakeholders. Also from their partners, members of supply chain and local community, social entrepreneurs were often seen as legitimate.

> **Proposition 10:** Social enterprises exhibit a multidimensional definition of legitimacy.

Supply chain scholars recognize various institutional influences on supply chains, yet little attention has been directed towards the fact that global supply chains often comprise different institutions. This represents a significant research gap because the understanding of what constitutes legitimate behavior may vary substantially between contexts. Although social enterprises have previously existed for a long time, they are quite often treated as newly legitimated institutions.

Legitimacy is a major goal behind an organization's widely observed conformance or isomorphism with the expectations of key stakeholders in the environment (Di Maggio and Powell, 1983; Meyer and Rowan, 1977; Tolbert and Zucker, 1983). In the institutional mind-set, managers follow environmental cues to encourage organizations to conform to

social expectations. As a result, our organizations and their supply chain members gain legitimacy.

According to Dees (1998), Seelos and Mair (2005), social enterprises play the role of change agents in the social sector, by:

- adopting a mission to create and sustain social value (not just private value)
- recognizing and relentlessly pursuing new opportunities to serve that mission
- engaging in the process of continuous innovation, adaptation, and learning
- acting boldly without being limited by resources currently in hand, and
- exhibiting a heightened sense of accountability to the constituencies served and for the outcomes created.

Each of these elements (coercive, normative, and mimetic) provides a basis for legitimacy – a condition reflecting congruence with rules or laws, normative support, or cultural alignment (Scott 1995).

Theorists emphasizing the coercive view of institutions (e.g., Barnett & Carroll, 1993) are likely to view organizational change as fundamentally a product of market forces and regulative organizational elements such as new policies driven through coercive means. Normative theorists (e.g., Selznick, 1948) who emphasize the role of social obligation are likely to focus on informal structures rather than formal structures of organizational change. They are also expected to highlight the immediate environment of organizations rather than the more general cultural rules of the society at large when driving such organizational change.

Mimetic pressure theorists, or those examining changes in the cognitive aspects of organizations, (e.g., Powell & DiMaggio, 1991), are likely to focus on changes in conceptual beliefs, mental models, and interpretations of shared meanings when organizations go through significant change. This perspective also stresses the importance of achieving change that is internalized by organizational members, and that is culturally supported. Results also suggest (Díez-martín, Blanco-gonzález, and Prado-román 2016) that innovation-driven countries with more entrepreneurial legitimacy obtain greater rates of entrepreneurial activity. As legitimacy is a key factor that helps mitigate

the perception of risk and reduces uncertainty, social enterprises with gained legitimacy have a greater chance to success.

According to our research, organizations view social enterprises as pragmatically legitimate to the extent to which they provide access to newly targeted public-sector groups plus foundations in a variety of different political jurisdictions. All interviewees emphasized the importance of gaining legitimacy in cooperation with the social enterprise.

Proposition 11: Existence of social enterprises' legitimacy is positively associated with social entrepreneurial contribution to supply chains.

Research Question 5: From a sustainability perspective, can social enterprises be institutional entrepreneurs?

Businesses cannot seek short-term profitability that could simultaneously endanger the environment or society (Porter and Kramer 2006). Rather, emphasis should be placed on competing for the future, whereby profitability and growth, as well as future sources of competitive advantage, are explored holistically (Hamel and Prahalad 1994). Thus, sustainability, which is broader than economic prosperity, is essential for businesses to prosper in the current environmental landscape (Paulray 2011).

Previous research shows that changes can come with institutional entrepreneurs. The notion of institutional entrepreneurship was observed in organizational studies documenting the processes of establishing and changing social institutions (Maguire et al. 2001). According to DiMaggio (1988), an institutional entrepreneur is an agent who can mobilize resources to influence or change institutional rules to support an existing institution, establish a new one, displace or destroy current ones (Hargadon and Douglas 2001).

Institutional entrepreneurs are further distinguished by introducing operating models that diverge from conventional or established methods, a feature not associated with other entrepreneurs (Leca et al. 2008). Social Enterprise 1 promotes sustainable development through education. Their distributor (Distributor 1) stated (as shown in Exhibit 15):

Exhibit 15:

"Where we shine is not just training of youth and young adults, but we give them the entrepreneurial tools as a base. We give them a portal to access all the tools and a certain level of expertise at any given moment. We can provide fire prevention solutions, and we have some continuity as well".

Just as entrepreneurs change the face of business, social entrepreneurs act as change agents for society (Hervieux, Gedajlovic, and Turcotte 2010). In their research, Hervieux et al. (2010) defend the claim that consultants and foundations who work with social entrepreneurs see them as important institutional actors and initiators of change. The

process of change was detected by several members of the supply chain. One of the suppliers (Supplier 1) of Social Enterprise 2 stated (as shown in Exhibit 16):

Exhibit 16:

"Yes, actually we were 100% for-profit business. We have changed the focus on the customers. Our customers are a community. And at the same time, our customers are still fire departments and fire safety agencies. We still have our traditional customers, but what has changed is that we are so focused on the community and sustainability".

There is growing empirical evidence that social capital contributes significantly to sustainable development (Pantoja 2000). According to some researchers (Lehtonen 2004; Dhesi 2010), social capital represents the most commonly proposed framework for addressing social sustainability. Both Social Enterprise 2 and their Supplier 1 have showed significant levels of social capital. According to Putnam (1995) and Farrell and Knight (2003), institutional change will occur in social settings which show untrustworthy factors which affect the circulation of information about the trustworthiness of members.

Tracey, Phillips, and Jarvis (2011) studied the idea of tackling homelessness through social enterprises. According to them (Tracey et al. 2011), social entrepreneurial initiatives also captured the interest of the UK government, which become involved in social enterprises and actively promoted it across the country. Tracey et al. (2011) suggest that the pattern they observed in the field of social enterprise homeless support, may be quite typical in the context of social enterprises being an agent of change or institutional entrepreneur. According to Walker and Salt (Walker and Salt 2006), social capital is considered an attribute of resilient social-ecological systems. Therefore, it can sufficiently support sustainable initiatives.

Social entrepreneurs often create innovative partnerships which successfully solve social problems. Their creations, though, are subject to the constraints of existing formal (e.g., political, regulatory, industry standards) and informal (e.g., socially acceptable norms and unspoken traditions) institutions.

Over time, social entrepreneurs can be seen as agents who create new institutions, practices, and norms, and who are consequently shaped by existing and new institutions, methods, and norms. Importantly, social entrepreneurs need tools or resources to create new institutions and change existing practices. In doing so, they embrace communications with their socially constructed language. This creates institutional change, while at the same time, shapes conversations between other members and institutions.

The members of this study's supply chains show an interest in change. It's not only about adapting to a social enterprise, but about changes that were perceived and seen by members of the supply chains.

Proposition 12: Due to their presence in the supply chain, social enterprise will change norms, rules and established business practices in the supply chain.

Research Question 6: How do social enterprises transform institutions in supply chains?

Corporations face pressure from governments, civil society groups, and consumers to respond to social problems in their operating environments. Often, pressures include improving the sustainability characteristics of their products, services, and supply chains (Akemu 2017). In order to gain legitimacy, companies respond to these problems while entrepreneurs develop new products/services for opportunities to address these social problems through market mechanisms (Akemu 2017); these are social innovations and a critical aspect of social entrepreneurship. Institutional theory takes its cue from an open systems point of view that environment affects an organization and that this environment is, in part, a social construction that is deeply and historically sedimented (Clegg 2019). Institutions, in this context, are the 'rules of the game' that govern social exchanges undertaken by individuals and organizations (North 1990).

According to Nicholls (2006), Sarate, Domeneghini, and Macke (2018), and Lubberink et al. (2018) social enterprises can make changes within organizations. Our findings support claims suggested by other researchers Lindquist, Berglund, and Johannesson (2008), and Mülling et al. (2018) and show that social enterprises can play a valuable part in the supply chain, offering real innovation and flexibility, while also helping to enhance a company's reputation. Analyzed Social Enterprise 1 provides expert training, affordable teaching tools, and cutting-edge technology that positively impacts children's lives and revolutionizes the way fire safety education is taught worldwide. One of their distributors (Distributor 2) stated (as shown in Exhibit 17):

> Exhibit 17:
>
> *"That's what I am looking for. It can be higher education, higher intelligence, and finding a solution instead of just excepting the problem and turning away from it. We all want to make money doing this. My dream was to promote fire safety and fire prevention and makes a living out of that".*

In their research Sodhi and Tang (2011) found how social enterprises help their associated micro-entrepreneurs by improving supply chain operations via: (1) more

accessible access to financial credits; (2) easier access to market information; (3) easier market access; and (4) better access to supplies and raw materials and higher productivity through better health and equipment. Social enterprises act as enablers that can help micro-entrepreneurs to develop sustainable supply chain operations by stimulating different types of supply chain flows (Sodhi and Tang 2011).

Social enterprises often have to implement changes which break with the norms in their environment. Gradually gaining legitimacy as a field of study, social entrepreneurship is defined as value creation (i.e., activities where the benefits accrue to the society instead of private individuals; as opposed to value capture) (Santos 2012), and innovative ways of combining resources and opportunity exploration to create value for society (Mair and Marti 2009). Analyzed Social Enterprise 1 offers new teaching tools that make fire prevention education easier, more effective, and scalable and are certainly preferable solutions.

One of their distributors (Distributor 2) stated (as shown in Exhibit 18):

Exhibit 18:

"The administration didn't give us a lot of time to talk to kids. We are in crisis. We are using new effective tools provided by our partner".

To date, we know little about how social entrepreneurs engage in institutional-change work and how they employ language (i.e., discourse) to achieve their goals (Chandra and Chandra 2017). According to some scholars (for ex. Chandra and Chandra 2017), both institutional and social entrepreneurs are "change agents." Institutional entrepreneurs – like social entrepreneurs – create new organizations, practices, and rules and norms that eventually generate social, cultural, and economic value to society. They often create innovative partnerships which successfully solve social problems. Their creations, though, are subject to the constraints of existing formal (e.g., political, regulatory, industry standards) and informal (e.g., socially acceptable norms and unspoken traditions) institutions.

Institutional entrepreneurs seek to achieve socio-political and cognitive legitimacy (Aldrich and Fiol 1994) in their acts, as do social entrepreneurs because not doing so will impede or limit their ability to work with diverse stakeholder groups and beneficiaries to generate shared value (Chandra and Chandra 2017). Moreover, like institutional entrepreneurs, social entrepreneurs are shaped by the historical context of institutions (Thelen 1999) and need to change path-dependent traditional practices and norms.

Over time, these changes in social relationships will give rise to new, more concrete social expectations about the likely outcomes of interactions between different member groups. Specific experiences across a variety of bargaining situations will lead to general beliefs, which will, in turn, be instantiated in new sets of informal institutions.

Proposition 13: The legitimacy of a social enterprise is the key to institutional change and will facilitate its implementation.

Drawing on the institutional entrepreneurship theory (Dorado and Ventresca 2013), social entrepreneurs can be seen as agents who create new institutions, practices, and norms, and who are consequently shaped by existing and new institutions, methods, and norms. Importantly, social entrepreneurs need tools or resources to create new institutions and change existing practices. In doing so, they embrace communications with their socially constructed language. This creates institutional change, while at the same time, shapes conversations between other members and institutions.

The members of this study's supply chains show an interest in change. It's not only about adapting to a social enterprise, but about changes that were perceived and seen by members of the supply chains.

One of the suppliers (Supplier 2) of Social Enterprise 1 stated (as shown in Exhibit 19):

Exhibit 19:

"Yes, there was a change. After partnering with social enterprise, we care more about fire safety."

Proposition 14: The institutional framework within social enterprises provides incentives that dictate institutional change.

Research Question 7: Are Social Capital and Institutional Theories valid theoretical lenses for understanding the influences of social enterprises in supply chains?

Social capital has been defined as generalized trust, access to, and membership in various types of networks with norms of reciprocity (Coleman 1988). To some researchers, (Rothstein and Stolle (2008)) social capital are identified as having two important and equally significant institutional dimensions: institutional effectiveness and institutional impartiality.

Until now, different authors have used social capital to explain phenomena that bonds individuals and society and both directly and indirectly with sustainability. The expansive literature arising from the work of Putnam (1995) suggests that the social and cultural patterns set in place both recently and historically may shape contemporary public policy initiatives such as those associated with the promotion of sustainability (Pierce, Lovrich, and Budd 2016).

The possibility that social capital plays a role in explaining business competitiveness and sustainability was first studied in the mid-1990s (Adler and Kwon 2002). According to Bebbington (1997), organizations, institutions, and networks (or what might be called social capital) of various types, and at a range of levels, contribute to sustainable resource management and processes of intensification. Putnam has argued that civic regions, those with high levels of network participation and social trust especially regarding bridging and non-rent-seeking networks, produce greater levels of institutional performance because they are more community-oriented (Putnam 1995 and Pierce et al. 2016).

Pantoja (2000) pointed out the growing empirical evidence that social capital contributes significantly to sustainable development. Even more, according to some researchers, (Dhesi 2010; Lehtonen 2004), social capital represents the most commonly proposed framework for addressing social sustainability. Pelling and High (2005) explain that social capital offers ways into understanding the role of fundamental social attributes which contribute towards building capacity for social collectives where individuals respond to climate change. Social capital provides the opportunity for such analyses to be situated in the broader, scaled processes of social life and a context of multiple risks (Pelling and High 2005). According to the previous research, social capital and social capital theory seem to be appropriate assessment tools for sustainability efforts. Eight of twelve analyzed supply chain members have mentioned the impact that the social enterprise has on their sustainability. As the concept of legitimacy and sustainability of social enterprise is indeed vital in creating both the economic and social values (Zainon et al. 2014), we support the idea of social enterprise transferring part of sustainable solutions to the supply chain members.

Proposition 15: Social capital theory is a potent tool for understanding social enterprise influences in supply chains.

Institutional theory has a long and varied history. Advocacy of institutions is present in different fields. For example, in economics (Mason, Kirkbride, and Bryde 2007). Institutional theory suggests the environment may place demands on organizations in two ways (Dimaggio and Powell 1983). First, economic and technical requirements stem from the market or quasi-market in which organizations operate. Second, society and culture demand that 'require' organizations to behave or work in specific ways.

A central idea of institutional theory is that within organizational fields, defined as the network of organizations and actors that combine to produce similar products or services, various ideas and practices gain legitimacy and become the accepted or taken-for-granted way of thinking and doing things, which shape organizational behavior (Dimaggio and Powell 1983; Cornforth 2014). Fire prevention looks like one of the models that can

tear the effort of supply chain members into a joint fire preventive campaign. One of the distributors (Distributor 2) of Social Enterprise 3 stated (as shown in Exhibit 20):

Exhibit 20:

"Yes, I personally feel to be a role model in my community as a firefighter, and this number one of responsibility is to make sure that the fire will not start. I am putting in my personal life. I am receiving support from the social enterprise".

According to DiMaggio (1988), Meek, Pacheco, York (2010) and Cornforth (2014) an important thesis within institutional theory is that, over time, common institutional pressures result in organizational forms and practices in particular organizational fields converging or becoming isomorphic. We believe that this is just another instrument, which additionally justifies the role of social enterprises in transforming members of social chains. Recently institutional scholars increasingly study efforts to alleviate social, economic, and environmental problems (e.g., Amis, Munir, and Mair 2015; Mair, Wolf, and Seelos 2016; Wijk et al. 2019). Their work offers an alternative lens on social innovation relative to those offered by other theoretical perspectives, such as stakeholder management, corporate social responsibility, and cross-sector partnerships (Wijk et al. 2019).

In the discussion about the sources of social capital, it has been stressed by several scholars (for ex. Rothstein and Stolle 2008) that generalized trust is built up by the citizens themselves through a culture that permeates the networks and organizations of civil society. Apart from institutional norms, trust has been regarded as a necessary element in affecting knowledge sharing and innovative performance (Gilsing and Nooteboom 2006; Wang, Tseng, and Yen 2014). All participants in our research highlight knowledge exchange and network as important motives for joining supply chains. According to Pelling and High (2005) and Pierce et al. (2016), both reasons are mainstays of social capital and exhibit strong effects on sustainability.

Proposition 16: Institutional theory seems to be a potent tool for understanding social enterprise influences in supply chains.

Chapter 5

Our aim in this chapter is to integrate and summarize findings from a body of research on supply chains, social entrepreneurship, social capital, and institutional theory. In this chapter, we also initiate discussion and provide solutions on how to integrate social entrepreneurial motives, passion, and solutions into the supply chains. This chapter continues with a focus on the role of social enterprises in supply chains. It suggests a set of propositions that holistically integrate the function of social enterprises across supply chains from the view point of theoretical constructs.

5.1. Integration and Summary of Results

Our study relates to three examples of social enterprises as study cases which have formed mission-fulfilling supply chains. Geographically, our analyzed supply chains are located in the US, Canada, and the UK. In 2016, all three countries were among the countries with the best working conditions for social enterprises (Lombardi and Wulfhorst 2016). According to the first experts' poll on the top nations for social entrepreneurs (Lombardi and Wulfhorst 2016), the United States ranks highest for business leaders seeking to tackle social problems. Canada and Britain rank second and third in the Thomson Reuters Foundation survey of almost 900 social enterprise experts in the world's 45 biggest economies. Singapore and Israel round out the remaining top five (Lombardi and Wulfhorst 2016).

The purpose of our research was to gain an understanding of social enterprises and their influence on supply chains. This phenomenon was evaluated through the lenses of social capital theory and institutional theory. In doing that, we focused on fire safety as a social problem and models used by social enterprises.

The objective of supply chain sustainability is to create, protect, and grow long-term environmental, social and economic value for all stakeholders involved in bringing

products and services to market as stated by Seuring and Müller (2008). We focused on sustainable solutions to supply chains created by social enterprises to fulfill their missions.

Fire prevention is a set of proactive methods of reducing emergencies and the damage caused by them. It has four essential goals: life safety, property damage protection, protection of operations, and education. Social problems, such as fire safety, are usually large-scale problems. Tackling them requires not only innovative approaches but also finding ways to size initiatives up to match the scale of the problem, and this is the area where social enterprises play an important role (Bacq et al. 2015).

Data in this research was drawn from interviews, company archival records, and email communications. Data collection included fifteen total interviews with social entrepreneurs and representatives from members of supply chains. Among them were three social entrepreneurs, six suppliers, and six distributors. The questioner included 45 questions with the main topics: Supply chain, Institutional Theory, and Social Capital theory.

This research looked at the role of social enterprises in supply chains. Tackling social problems such as poverty, hunger, education, safety, etc. not only requires innovative approaches but also, finding ways to determine the size and scale of the problem. Several scholars (Waddock, 1988; Selsky, 2005; Bryson, Crosby, & Stone, 2006; Lux & Mosley, 2014) suggest that most of the major issues confronting our society, including the environmental preservation, require strong collaboration, given the shifting roles and relationships of public and global private sector opportunities.

They further suggest that collaboration within supply chains presents opportunities to create powerful and mutually-reinforcing systems which combine the unique capabilities and resources of each party to deliver outcomes surpassing those of any one sector acting in isolation. The authors believe that collaboration between different agents in which social engagement networks results in partnerships and resources exchanges which are often transformational in impact (Meyskens, Carsrud, and Cardozo 2010).

Collaboration within supply chains occurs for many reasons. In some cases, members will seek out cooperation because none of the sectors (government, private, or nonprofit)

have asserted control over the policy domain (Heuer 2011). Government agencies increasingly collaborate with businesses, non-governmental organizations (NGOs), and other partners in order to accomplish complex development objectives (Manning and Roessler 2013). We observed these motives which influence supply chains after social enterprises become part of the process.

Supply chain members have different interests, goals, and incentives. Various antecedents influence the extent to which supply chains function and maintain sustainability. Our findings indicate that social capital plays an important role.

To show, interpret, and integrate results, the intensity and presence of social capital and institutional pressures were divided into three categories: low, moderate, and high. Similar criteria have been used by previous scholars who studied social capital and institutional pressures (Myer et al. 2008; Aier and Simon 2012; Nielsen et al. 2015). We are aware of the fact that this method has imperfections. However, we believe that our findings are shaped by the respondents and not researcher bias, motivation, or interest, as suggested by Johnson and Onwuegbuzie (2007) and Sutton and Austin (2015). Therefore we can be more confident of the result as proposed by (Kalinowski et al. 2010).

The scale from low to high represents the presence of social capital or institutional pressures detected in the answers of the interviewees and coded with the Deedose. The above average scale presents a higher degree of structural, cognitive or relational social capital and coercive, mimetic, and normative institutional pressures. The average presence of the above descriptors is given a moderate degree, while we assign their absence a low degree.

The first example in our analysis is a Canadian based social enterprise which provides expert training, affordable teaching tools, and cutting-edge technology to positively impact and revolutionize fire and life safety educations programs taught to children. The observed social enterprise meets NFPA 1035, 1730, and 1452 Standards.

They work hand-in-hand with fire departments and other local community-based organizations (ex. Red Cross, women's unions, engineering organizations, individuals with disabilities organizations) to ensure that all children get the chance to gain life safety

skills which are not otherwise taught at school or home. Their supply chain has been improving since the social enterprise was launched in 2017. A social entrepreneur (CEO), two suppliers, and two distributors were interviewed as members of their supply chain.

In Canada, where Social Enterprise 1 functions, social entrepreneurship is a relatively new concept and has only recently entered into frequent discussions (McMurtry and Brouard 2017; de Lange and Dodds 2017). According to Scalise (2018), Canada has previously been criticized for being about ten years behind other western nations when it comes to the development of the social entrepreneurial sector. On the other hand, according to a survey by Thomson Reuters Foundation and Deutsche Bank, social entrepreneurs in Canada benefit from one of the best environments in the world for starting and growing businesses aimed at producing a positive social impact (Invest in Ontario 2016).

An overview of the social capital and institutional pressure elements presented by the interviewees in SE Case 1 are shown in Figure 5.1. Social capital and institutional pressure values are presented in three levels – low, moderate, and high.

Members of SC	To join SC	Social Capital			Institutional Pressures			Intensity
		Structural	Cognitive	Relational	Coercive	Mimetic	Normative	
	SE 1	Low	Moderate	Moderate	High	Moderate	Low	
	Supplier 1	Low	Moderate	Low	High	High	High	
	Supplier 2	Low	Moderate	High	Low	Low	High	
	Distributor 1	Moderate	Moderate	High	High	Low	Moderate	
	Distributor 2	Low	Moderate	Low	Low	Moderate	Low	

Figure 5.1.: Values of social capital and institutional pressure elements for the Case 1 supply chain members

The social entrepreneur in case 1 emphasized sustainability to be an essential value. The relationship between social entrepreneurship and sustainable development has been addressed by various streams of thought and literature including ecopreneurship, social entrepreneurship, sustainable entrepreneurship, as well as, institutional entrepreneurship (Schaltegger and Wagner 2011). In their research Muralidharan at al. (2018) endorsed the importance social enterprises play in promoting sustainability through their development goals. According to our research and findings, Social Entrepreneur 1 shows a low value of structural capital and moderate values of relational and cognitive capital. Shared understanding, codes, and languages seem to be important for Social Entrepreneur 1. Conversely, network ties, and social structure seem to matter less. The below quote by Social Entrepreneur 1 about voluntary work and involvement in a local community surprised our research (as shown in Exhibit 21):

Exhibit 21:

"I would say in my own community I am not involved. It was the case when my kids were younger. I feel that I did my part. And this is my part of doing it. A community can be taken over by somebody else."

Several authors (for ex. Putnam 1995; Onyx and Bullen 1998) suggest that social capital, which consists of general trust, confidence in government, and group membership, plays a significant role in institutional and non-institutional political participation, civic engagement, and societal welfare. Only a handful of studies, however, have examined the relationship between social capital and individual philanthropic behavior—the voluntary contribution of time and/or money to collective goods (Wang and Graddy 2008).

Opinions are divided among scholars about the relationship between volunteering and charitable giving. For example, Narayan and Cassidy (2001) used volunteering and/or charitable giving as one of the indices in which to measure social capital. However, Putnam argued: "Doing good for other people… is not part of the definition of social capital"(Putnam 2000, p. 117), and therefore, we should separate philanthropic behavior from social capital. Later contributors found an inherent link between social capital and volunteering.

Glanville, Paxton, and Wang (2015) suggest that social capital is an important contextual influence on generosity because of community integration and trust increase information about opportunities for generous activities and the motivation for participating in these activities. According to Cox et al. (2019), more actively engaged volunteers are observed to possess greater stocks of social capital. An important role that social capital has is to support social skills. The idea of social capability is that actors have to motivate others to cooperate (Fligstein 2001). The ability to engage others in collective action is a social skill that proves pivotal to the construction and reproduction of local social orders. This idea can be used to understand how to scale social impact through the variety of stakeholders.

In several studies that have been carried out in different developed countries over the last few years, the effect of participation in many voluntary associations directed at benevolent purposes on social trust and the willingness to cooperate outside of group-life has been questioned. It is true that people who are "joiners" also trust other people more or generally cooperate more, but this seems to be an effect of self-selection.

People who—for some other reason—score high on the social ability to cooperate with others and to trust others, join voluntary associations disproportionally. The activity in such organizations does not add much in these desired traits, but members become purely more trusting in their fellow members, and they cooperate more for group purposes only (Stolle 2001). Thus the evidence that membership creates social capital that can be used on the broader society does not hold (Claiborn and Martin 2000; Hooghe and Stolle 2003; Rothstein 2002; Stolle 2000; Uslaner 2002). Other types of social interactions might do the job, yet a second problem occurs.

Social Entrepreneur 1 expressed a low level of structural social capital and moderate levels of cognitive and relational capital. Cognitive social capital is a dimension that relates to resources providing shared representations, interpretations, and systems of meaning among parties. Cognitive social capital includes shared norms, values, attitudes, and beliefs and predisposes people towards mutually beneficial collective action (Nahapiet and Ghoshal 1998).

Cognitive social capital constructs are shared understandings, shared language, codes and narratives, shared values, attitudes, trust, beliefs, solidarity, and reciprocity. The

relational dimension of social capital includes the personal relationships people have developed with each other through a history of interactions and the nature of these relationships. Assets created or leveraged through relationships play a critical role. The relational component of social capital covers parameters influencing relationships, like trust, norms, values, obligations, expectations, and identity. These elements influence what will flow over social relations. Relational social capital constructs are (Nahapiet and Ghoshal 1998): nature and quality of relationships, trust, and trustworthiness, norms and sanctions, obligations and expectations, identity, and identification.

Cognitive and relational social capital may seem similar. However, cognitive relates to the subjective interpretations of shared understandings. Relational social capital includes feelings of trust, which are shared within the social context (group, organization, community). It is this theoretical perspective, due to its popular, well-tested, logical, and clear constructs, that we use in this study. Lower value of cognitive and relational social capital was recognized by one of the distributors (Distributor 1) in the Supply Chain 1, whose levels of social capital exceeded social capital levels expressed by Social Entrepreneur 1. He commented on the relationship with Social Enterprise 1 (as shown in Exhibit 22):

Exhibit 22:

"The risks were poor management of the social enterprise and poor governance."

During the phone call a few months after the interview, we found out Distributor 1 discontinued cooperation with a social entrepreneur and exited the supply chain.

The distributor can maximize sales and distribution of the company products in the marketplace. Established partnerships with distributors provide for continuity and trust of supply (McKenna 2008). If the focal firm faces a lack of demand, and customers are pushing back, distributors are faced with reduced profitability or walking away from business (McKenna 2008). While social entrepreneurial actions are orchestrated to create social value (Di Domenico, Haugh, and Tracey 2010), profit driven entrepreneurs strive for profit. By highlighting the key trade-off between value creation and value capture and

explaining when situations of simultaneous market and government failure may arise, social entrepreneurship is the pursuit of sustainable solutions to neglected problems with positive externalities (Santos 2012). We believe that a different view of value creation can be a sufficient reason to exit supply chains. According to some scholars (Bruton, Ahlstrom, and Li 2010), differences in culture can influence business performances. Language, spoken by socially driven and for profit-driven members of supply chains often wasn't the same. Out finding indicates lack of cognitive social capital, that deals with shared understanding, shared language, and beliefs.

Prior research flags the inherent incompatibilities between for-profit and nonprofit partners and cautions that clashing value creation logics and conflicting identities can stall social innovation in cross sector partnerships (Le Ber and Branzei 2010) or supply chains. The discovery indicates low social capital and the dilemma that partners have when entering the supply chain.

An overview of the elements of social capital and institutional pressure presented by the interviewees in Case 2 are shown in Figure 5. 2.. Social capital and institutional pressure values are presented in three levels – low, moderate, and high.

Members of SC / To join SC	Social Capital			Institutional Pressures			Intensity
	Structural	Cognitive	Relational	Coercive	Mimetic	Normative	
SE 2	High	High	Moderate	High	High	Moderate	
Supplier 1	Moderate	Moderate	Low	Moderate	High	Low	
Supplier 2	Moderate	Moderate	High	High	Moderate	Moderate	
Supplier 3	Low	Moderate	High	High	Low	Low	
Distributor 1	Moderate	Moderate	High	High	Low	Moderate	

Figure 5.2.: Values of social capital and institutional pressure elements for the Case 2 supply chain members

Social Entrepreneur 2 expressed high levels of structural and cognitive social capital and a moderate level of relational capital. According to Bourdieu and Wacquant (1992, p. 119), social capital is "the sum of the resources, actual or virtual, that accrue to an individual or group by possessing a durable network of more or less institutionalized relationships of mutual acquaintance and recognition." We believe that this specific dimension of social capital can explain the related concepts of social trust and membership in associations and relationships that Social Entrepreneur 2 has with its supply chain members and with its final customers. Customer opinions, captured from publicly accessible data (Social enterprise two web site) is in Exhibit 23.

Exhibit 23:

> After using other Fire Extinguisher Companies and being drastically overcharged and under serviced in 2015 we turned to Fire Safety Managers Ltd and asked them to correct the bad condition our extinguishers were left in. They booked us in as urgent and within a few days the Fire Technician came and completely revamped the extinguishers to new for 60% less than any other company has charged in the past and we had a better quality service to boot. We have used these guys for 3 years now and continue to give them additional sites to which they still continue to deliver a faultless service. They go out of their way to make us happy. Highly recommended!
>
> Mark
> Production Warehouses

> To Paul & the team at Fire Safety Managers Limited. Thanks for everything you have done over the last 3 years. We look forward to continuing to work with you in 2018, your work ethic and customer service is faultless and your online portal is fantastic. You are a great company with brilliant values and we appreciate your hard work keeping us compliant with our fire safety.
>
> Michelle
> Multi Site Company

> Paul and his team have been looking after all 11 buildings within the Birmingham Science Park since December 2017 and finally we have a company who are reliable, trustworthy and transparent with their pricing. Its been 7 months so far and they are always there when needed either on the phone or in person. We really have found a great company here who now has all our fire safety contracts and looks after them extremely well. Thanks for all your hard work!
>
> John
> Facilities Manager

Both the social entrepreneur and the members of the supply chains in Case 2 showed a relatively high level of social capital.

Proposition 17: Members of supply chains with a high value of social capital will prefer to cooperate with the members who have similar characteristics of social capital.

The presence of social capital was also demonstrated by their customers who were indirectly involved in our research. We obtained their opinions from the company's

website. Researchers identified customer relationships and social capital as important firm relational resources (Luo et al. 2004). An overview of the second social enterprise case study business report showed constant economic growth.

Research says that companies can turn their social capital into economic capital (Van Den Bulte et al. 2017). According to Van Den Bulte et al. (2017), firms can leverage their customers' networks to gain new customers with higher customer lifetime value and convert social capital into economic capital. Iyengar et al. (2011), Gonzalez, Claro, Palmatier (2013) and Van Den Bulte et al. (2017) linked the transition of social capital to economic capital through word-of-mouth marketing, in which the emphasis is turning from investigating whether peer influence operates to how it operates; intersection of social status, customer valuation, and targeting and social capital theory and its various applications to marketing.

Proposition 18: Presence of social capital will affect marketing strategies and consequently, the increased response of target customers and increased sales.

Our research supports Sakarya et al. (2012), who suggests that social enterprises offer social capital, institutional linkages, and knowledge networks to their supply chains' members. Members in supply chains colaborate when the cooperative payoff exceeds that of proceeding alone. Clearly, this represents high levels of cognitive social capital. Social capital within the supply chain means mutual understanding between partners. Based on congruence theory, high performance (above a threshold) requires high congruence (Eckstein 1997), and, for all cases, performance increases monotonically as a function of congruence. Ideally, congruence means isomorphism (sameness of form), as in geometry (Eckstein 1997; Rahman 2014). As the congruence may happen between the values of the employees and their organizations, it seems that social capital can serve sufficiently as a benchmark.

Scholars define that an essential role social enterprises have is promoting social capital (María, Chrisman, & Peredo, 2006; Dhesi, 2000; Dhesi, 2010). Given certain conditions, social capital can be considered to be enabling resource, which improves the

effectiveness of other inputs in development what was shown in this research. However, in the absence of those conditions, social capital may hinder development (Dhesi 2000) or disables the promotion of fire prevention. Forms of value created for partners may include a wide range of benefits including, but not limited to, access to new knowledge, expertise, or networks; increased financial or technological resources; improved reputation and name recognition; higher employee morale and retention; and increased consumer patronage (Murphy and Arenas 2010).

Prior research flags the inherent incompatibilities between for-profit and nonprofit partners and cautions that clashing value creation logics and conflicting identities can stall social innovation in cross sector partnerships (Le Ber and Branzei 2010). In this study, we have shown that cooperation is possible. Both social enterprises and other partners have an interest in participating in the supply chains. In doing so, they both can gain and, of course, improve fire prevention (changing institutional norms on fire prevention).

An important and measurable parameter of successful supply chains is their impact. The impact is defined as "significant or lasting changes in people's lives, brought about by a given action or series of actions" (Roche 1999). Definitions of impact refer to a logic chain of results in which organizational inputs and activities lead to a series of outcomes and ultimately to social impact (Sakarya et al. 2012). In terms of fire prevention, impact means reducing the number of fires and, consequently, the number of victims. When working together through the supply chain, supply chain members often apply tactics and strategies that mobilize actors from within institutions in non-confrontational ways particularly useful (Lux and Mosley 2014) later shared by social capital.

> **Proposition 19:** Supply chains with consistently high social capital are more likely to be sustainable.

Each organization in a social partnership expects to benefit by having its partnership objective fulfilled (Selsky and Parker 2010). Social enterprises address unmet social needs to create value which leads to the development and growth of individuals, communities, and regions (Meyskens et al. 2010) and we believe that these are examples

where social enterprises will try to become a member of supply chains. Impacts of social enterprises can be significant. By raising awareness of shared interests and identity, social entrepreneurs strengthen the community (Dhesi 2010).

An overview of the elements of social capital and institutional pressure presented by the interviewees in Case 3 are shown in Figure 5.3.

Members of SC	To join SC	Social Capital			Institutional Pressures			Intensity
		Structural	Cognitive	Relational	Coercive	Mimetic	Normative	
	SE 3	Moderate	High	Moderate	High	Moderate	High	
	Supplier 1	Moderate	Moderate	Moderate	Low	High	Low	
	Distributor 1	Moderate	Low	Moderate	High	Moderate	Low	
	Distributor 2	Moderate	Moderate	Moderate	High	Low	Low	
	Distributor 3	Low	Moderate	High	High	Moderate	Low	

Figure 5.3.: Values of social capital and institutional pressure elements for the Case 3 supply chain members

Supplier 1, in this case, is a small profit driven company, which at the same time promotes corporate social responsibility. In his work, Russo (Russo and Perrini 2010) has linked small and medium enterprises (SMEs) with corporate social responsibility. According to Russo and Perrini (2010), social capital is a useful way of understanding the CSR approach of SMEs, whereas stakeholder theory more closely addresses the CSR approach of large firms.

According to Singh (Singh, Majumdar, and Saini 2017), the combination of social and business goals, can be achieved in various ways. Companies can support social enterprises in order to achieve their social missions or to survive in uncertain

environments. The analysis of data has shown a strong presence of institutional mimetic pressures expressed by Supplier 1. Mimetic pressures represent demands towards the imitation of other organizations to cope with uncertainty. DiMaggio and Powell (1983) determine that mimetic isomorphism is a result of uncertain environments and unclear organizational objectives. The mimetic sources of pressures are contributed locations of significance for organizations to consider associations and cultures. Their purpose is to acquire legitimacy. For Supplier 1, we also find a moderate level of all three social capital elements, which are also relatively high values compared to other members of the supply chain.

All three distributors, in this case, are firefighters (Distributor 1) or fire brigades (Distributors 2 and 3) where we again find a strong emphasis on the role of social capital. According to Andrews and Brewer (2010), social capital is likely to be an important determinant of fire service outcomes. Andrews and Brewer (2010) suggest that political engagement and social trust components are shown by fire service may be the most significant focus for public policies seeking to build social capital to reduce fire fatalities.

Fire service is an important domain of public service requiring a high amount of social capital. Putnam's (2000) study identifies five general components of social capital which are likely to create positive outcomes for public service performance: community and organizational life, engagement in public affairs, community volunteerism, informal sociability, and social trust.

For all three distributors, in this case, essential pressures of why entering supply chains with the social enterprises are coercive pressures. Coercive pressures are typically formal institutions of regulations or laws, but can also be informal expectations on organizations (e.g., fire safety standards imposed by someone exerting power over another actor, as in a parent-subsidiary relationship). All three distributors believe that regulations in fire safety are inadequate. Organizations like fire brigades are similar to professional associations that are known to have an essential role in monitoring compliance with normative and coercive expectations (Kshetri and Dholakia 2009).

Firefighters were expected to have at least a brief knowledge of fire prevention. This fact made the work for the social enterprise easier since working with their distributor did not

require prerequisite customer training and education. Similarly, all the members of the supply chain were linked to the same set of regulations, fire safety regulations. Some fire brigades see an advantage in their partnerships with the businesses and the local community. As stated by Omary et al. (2016), partnering with other organizations can enhance the influence of the fire department in this area. As there is a similarity between solving fire safety and health problems, probably it will be similar institutional pressures that will help social enterprises to approach health problems.

All three analyzed supply chains indicated the importance of coercive pressures, which specify fire safety being of great importance. Coercive pressures typically include formal sets of regulations or laws, but can also be informal expectations within organizations (e.g., fire safety standards imposed by someone exerting power over another member such as in a parent-subsidiary relationship). Globally, fire codes are facing a deregulation process. (Tombs and Whyte 2013) The primary purpose of this deregulation is to open the doors of competition to more businesses, offering consumers a greater choice of services or products.

Proposition 20: A high level of coercive pressures among the members of supply chains helps social enterprises to fulfill their mission across the supply chain.

Social enterprises activate supply chain members while trying to solve a problem. Each firm or member of a supply chain will try to leverage the value of its resources by accessing complementary resources from an alliance partner (Lavie 2006). Despite their common goals, each member will try to fulfill their own goals and interests that will follow their corporate mission. Transparency of resource acquisition motivates supply chain members to better understand the social engagement network itself and to develop other ways to foster future successful supply chains. (Meyskens et al. 2010).

Core arguments shown by other researchers (Child & Faulkner, 1998) are that organizations collaborate because they lack critical competencies they cannot develop on their own or in a timely fashion and because their environments are more uncertain.

Our research has shown that social enterprises strive for more intensified connections in the supply chain. Social enterprises have shown all three components of social capital (structural, cognitive, and relational) as necessary for participation in the supply chain. All three interviewed social entrepreneurs mentioned sustainability as being very important. All three social entrepreneurs also highlighted collaboration and partnership as important reasons for entering supply chains. Interviewees emphasized the importance of workers benefits, which is also usually the concern of social enterprises. As suggested by Esfandabadi et al. (2016), it is the critical role of supply chains combined with social enterprises and profit driven businesses to provide its members with collective capital supports and warrant them credit. Our research has also proved this.

Institutional theory suggests that when there is high uncertainty about how to achieve specific outcomes, organizations are likely to emphasize standards and approve existing procedures (Selsky and Parker 2005). All three representative groups of the analyzed supply chains have highlighted the importance of fire safety regulations. They see them as essential elements for the promotion of fire prevention as well for connecting members in the supply chains.

As earlier reviewers on the entrepreneurship literature would suggest, we found the largest number of antecedents in case of commercial enterprises to enter supply chains with social enterprises. For companies entering supply chains, there is the possibility of enhancing the corporate image or brand reputation and hence boosting sales, preventing potentially harmful public confrontations and tapping into new markets (Kolk et al. 2010). In the commercial sphere, the membership goal would be maximizing profits. As suggested by Arya (Arya et al. 2015), there is very likely, that commercial enterprises will be driven by the market share and increased profit. Our research has shown that, while partnering with social enterprises in supply chains, change is possible in purely profit-driven businesses. According to Singh et al. (2017), social entrepreneurship strives to combine the heart of business with the heart of the community through the creativity of the individual. Social entrepreneurs, he adds, "play the role of change agents in the social sector."

Our findings support other studies who found that collaborative relations among three sectors of society (government, private, nonprofit) increase the possibilities of tackling the most pressing social, economic, and environmental challenges. They contribute to crucial societal development while benefiting the various partners in the collaboration (Miller and Ahmad, 2000: 16; Manning & Roessler, 2013). Morally-driven social entrepreneurial activity is quite demanding but crucial for sustainable community development (Dhesi, 2010; Malunga, Iwu, & Mugobo, 2014) and fire safety. Social enterprises have proliferated in order to address the growing social problems and the increased demand for their services (Sakarya et al. 2012). This is an essential factor which motivates the collaboration of other partners with social enterprises.

In their search for new resources, social enterprises adopt strategic partnerships as a potential survival strategy (Millar, Choi, and Chen 2004). We show that supply chain membership offers social enterprises to provide social capital, institutional linkages, and knowledge networks to their partners in return for funding (Sakarya et al. 2012). According to our findings, the connection will be even better with the presence of social capital.

For social enterprises, generated social value is the primary goal when looking at and entering into cross-sector collaboration. Social enterprises will act as change agents and thus have a positive impact on other members of the supply chain. This is of greater importance if we imagine that social enterprises also act as focal firms. Focal firms of supply chains are at the forefront of these changes by being in the middle and operating on thin margins (Chen, Fan, and Farn 2009). They are being squeezed from both business customers and suppliers to add more value to the value chain. The best way to achieve social-entrepreneur-desired outcomes is to empower beneficiaries and potential stakeholders to become integral parts of the solution (Murphy, Perrot, and Rivera-Santos 2012). This participation is eventually possible through the focal firms. Fulfilling this goal, supply chains with social enterprises as focal firms would certainly include governments as well as businesses, NPO, foundations, higher education institutions, and different community groups as well.

Governments support many initiatives within their communities by assessing the needs demands of their citizens. (Meyskens et al. 2010). Governments also partner with corporations to generate jobs within their communities (Meyskens et al. 2010). Social ventures often jointly apply for government contracts or grants and later share the gained human capital and intangible knowledge (best practices) in compliance with agreements and/or grants. (Meyskens et al. 2010). Government agencies can attain access to additional human capital while serving its citizens through collaboration with social ventures (Meyskens et al. 2010) and promoting fire prevention.

Social entrepreneurial organizations and social enterprises have been associated with long-term change, development, and the creation of sustainable social impact (Martin and Osberg, 2007; Buckmaster, 1999; Zappala and Lyons, 2009; Trivedi and Stokols, 2011; El Ebrashi, 2013; Austin et al., 2006).

> **Proposition 21:** A focal firm with high social capital values will have better opportunity to become a change agent.

Social Capital, at its basics, means forming relationships, sharing, and working together in order to offer a more significant benefit than if operating alone. Our research showed that supply chain members, within a social enterprise acting as a focal firm, have a significant affinity for collaboration. As a motive for cooperation, we found evidence of structural, cognitive, and relational social capital, which are brought into the supply chain by social enterprises (Fig. 5.4.).

Figure 5.4.: Social Enterprise's Levels of Social Capital

With variables like their unique identities, dates of establishment and primary locations, social enterprises bring various levels of social capital into supply chains. Our analysis showed that all three social enterprises contain the same level (moderate level) of relational social capital. Not surprisingly, all 3 mentioned norms. The effectiveness of fire safety measures is largely based on proactive codes and standards. Since all three social enterprises (analyzed focal firms) work in the field of fire prevention, logically, regulations are highly emphasized.

Cognitive social capital is about shared understanding, shared language, codes, and narratives. Social enterprise mission success depends on proper strategies and methods that they will apply while collaborating with partners. Therefore, it is expected that social entrepreneurs will address expectations, identity, and identification when discussing the importance of supply chains.

Several authors (for ex. Putnam 1995; Onyx and Bullen 1998) namely demonstrated that social capital, which consists of general trust, confidence in government, regulations, and group membership, play a significant role in institutional and non-institutional political participation, civic engagement and societal welfare.

The difference between the three analyzed social enterprises lies in structural and cognitive social capital. The most significant deviations in our analysis included structural social capital. The concept of social capital has been increasingly prominent in social economics, particularly those that seek to show the role of trust and community in

countering the effects of market values on contemporary restructuring. Since trust-related components affect cognitive and relational capital, we believe that both cognitive and relational capital are important intangible assets for social enterprises looking to achieve their missions through supply chains. We found cognitive social capital to be slightly more critical across the supply chain members. Regarding cognitive social capital, it is becoming an increasingly prominent concept for describing and characterizing the set of relationships of a specific firm (Inkpen and Tsang 2005).

Proposition 22: Cognitive social capital is effective and the most critical enabler for collaboration across the supply chain.

Even though only three social enterprises were analyzed, they still differed. Presence of their social capital has been reflected in institutional pressures (see Fig. 5.5.) which motivates them to form their own or join already established supply chains.

		Institutional Pressures		
		Coercive	Mimetic	Normative
Social Enterprise	SE 1	High	Moderate	Low
	SE 2	High	High	Moderate
	SE 3	High	Moderate	High

Figure 5.5.: Social Enterprise's Institutional Pressures

All three analyzed social enterprises showed a strong correlation with institutional pressures. Coercive pressures stood out in all three social enterprises. As mentioned before, this phenomenon can be observed in fire safety regulations. Namely, coercive pressures are typically found in institutions with regulations or laws, but can also be seen in informal expectations within organizations (e.g., fire safety standards imposed by someone exerting power over another actor, as in a parent-subsidiary relationship).

Globally fire codes face a deregulation process (Tombs and Whyte 2013). All three analyzed social entrepreneurs saw deregulation to be a severe problem.

Among social entrepreneurs, mimetic pressures were also discussed. Mimetic pressures represent demands towards the imitation of other organizations to cope with uncertainty. According to (Dimaggio and Powell (1983) and Liang et al. (2007), mimetic isomorphism results in organizations who respond to uncertainty by mimicking actions of other organizations. In the search for suitable sustainable business solutions, social enterprises will often apply other business models (Wronka-Pośpiech 2017). This is especially true when businesses are in the early stages of development. Traditional franchising is the practice of replicating a successful business by following a consistent set of well-defined processes and procedures. There are quite a few examples of social franchises in the world (Lyon and Fernandez 2012). Based on our findings, it is reasonable to expect that social entrepreneurs will have similar goals within like-minded supply chains.

The overview of the data also provided a direct link between social capital and institutional pressures (see Fig. 5.6.). Social entrepreneurs with noticeable social capital also showed a higher level of institutional pressures. Unusually robust and visible was the connection between structural and cognitive social capital and coercive and mimetic institutional pressures.

Cognitive social capital includes shared norms, values, attitudes, and beliefs and predisposes people towards mutually beneficial collective action (Nahapiet and Ghoshal 1998). If this is the case, according to DiMaggio and Powell (1983) organizations, incline to model themselves on other organizations within their environments, which they deem to be successful and legitimate. This can be confirmed in our second case, where we detected a higher level of social capital in the members of the supply chain.

Social Capital				Institutional Pressures			
	Structural	Cognitive	Relational	Coercive	Mimetic	Normative	
SE 1	Low	Moderate	Moderate	High	Moderate	Low	SE 1
SE 2	High	High	Moderate	High	High	Moderate	SE 2
SE 3	Moderate	High	Moderate	High	Moderate	High	SE 3

Figure 5.6.: Social Enterprise's Social Capital and Institutional Pressures

Proposition 23: The presence of institutional pressures is positively associated with individual and entrepreneurial social capital.

Chapter 6

In this chapter, we evaluate our findings and introduce concluding remarks. Chapter 6 describes how the dissertation contributes to the supply chains and social entrepreneurship theory and also outlines several related implications. In this chapter, we also discuss the limitations of the study and propose suggestions for future research.

6.1.   Evaluation of the Studies and Concluding Remarks

This research presents findings from an extensive literature review and three analyzed supply chains with social enterprises as focal firms. Our research contributes to the theory of supply chains, social entrepreneurship, and fire prevention in six ways.

First, we highlight and describe the typology of supply chains from a social enterprise perspective and potential collaboration options from social capital and institutional pressures. Second, we summarize the antecedents that generate social enterprises joining supply chains and supply chain members joining social enterprises. Third, we analyze the roles of other external institutional pressures for social enterprises joining supply chains. Fourth, we present the roles that other external institutional pressures play in social enterprises joining supply chains. Fifth, we debate possibilities for social enterprises to be institutional entrepreneurs from a sustainability perspective. Sixth we show the interaction and correlation between social capital and institutional pressures. To understand the research questions and the link between the supply chains and the corresponding roles of social enterprises, we have utilized two theoretical lenses: social capital theory and institutional theory.

Differences exist between analyzed supply chains. Their common denominator is fire safety with a concentration in fire prevention. Also, in all three cases, social enterprises serve as focal firms. An essential difference between the analyzed social enterprises and their supply chains are a geographic area, target customer segments, their employment structure plus business models.

Based on seven research questions, we have developed 22 research propositions that try to explain the relationship between social enterprises and supply chains (see Fig. 5.7.).
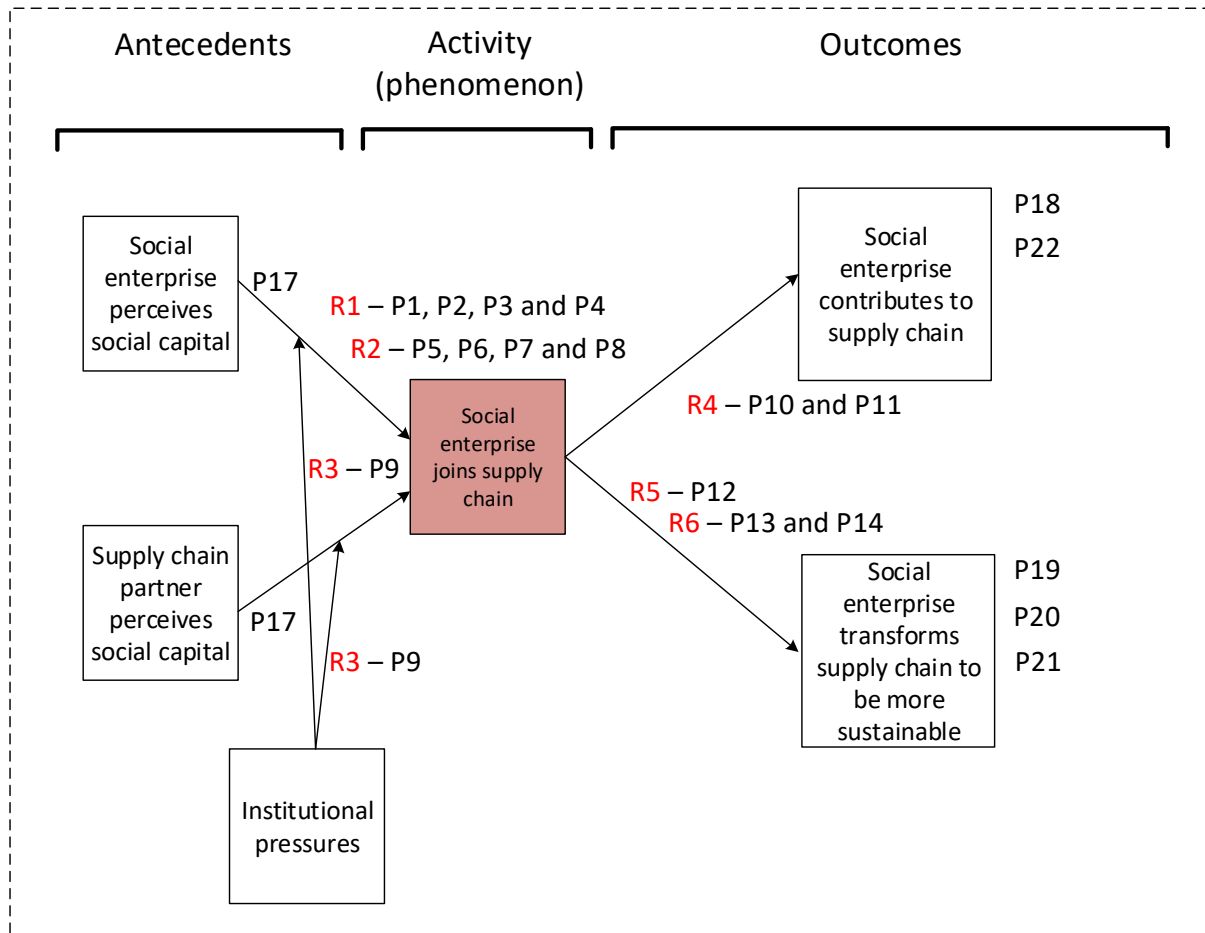
Figure 5.7.: Research questions and corresponding propositions

The critical question that we tried to address was about antecedents, processes, and consequences of social enterprises entering supply chains and other supply chain members joining social enterprises.

As earlier reviewers on the entrepreneurship literature would suggest, we found the most significant number of antecedents in case of commercial enterprises entering supply chains with social enterprises. For companies entering the supply chain, there is the possibility of enhancing the corporate image or brand reputation and hence boosting

sales, preventing potentially harmful public confrontations and tapping into new markets (Kolk et al. 2010). According to Deephouse and Suchman (1995), it is the legitimacy related to social capital that connects, and at the same time, allows us to understand thoroughly what determines organizational growth and endurance. We found support for this statement. We also realized that the lack of social capital could force supply chain members to exit supply chains.

This research framework begins with the perceived level of social capital as an important antecedent for supply chain partners to join supply chains. In our case, supply chains were associated with social enterprises positioned as a focal firm.

Social entrepreneurship offers opportunities to improve society using practical, innovative, and sustainable methods. In our case, social enterprises provide solutions in the area of fire prevention. According to Başar (2018), a social entrepreneur is an individual or an organization who seeks out to find answers surrounding social issues, the environment, fair trade, education, health, and human rights (Başar 2018). Social concerns are contributing more than financial or market opportunities if they are sustainable and legitimate enough to attract other members of supply chains through their social capital.

Our research showed several antecedents under which social entrepreneurs will work with other members within supply chains. Within a given supply chain, social enterprises help exchange products and services. Together with supply chain members, they can reach indirect beneficiaries with impact. In case of our research, three social enterprises promoted solutions in the area of fire prevention. Our research proved that social enterprises expand and strengthen social capital. Several supply chain members considered the presence of a social enterprise to be a trigger for change.

Besides analyzing internal factors that support social enterprises to enter or establish supply chains for mission fulfillment, we discussed external moderators which affect our results. We found codes and standards, social entrepreneurial certification, entrepreneurial training, and geographic location as important and decisive indicators (see Fig. 5.8.). These are representatives of institutional pressures and social capital. Codes, standards, and social entrepreneurial certification are institutional pressures that

fall into the group of normative pressures. They are rooted in the processes of professionalization in which the values, codes, and standards are imposed by universities as well as professional certification and accreditation agencies (Dimaggio and Powell 1983; Hanson 2001). As described by Hanson (2001), the regulative pillar plays a stabilizing role by prescribing actions through formal and/or informal rules that establish, monitor, and sanction activities. Instruments of normative isomorphism also act as gatekeepers, determining who gets into the profession and therefore, further reinforcing normative expectations (DiMaggio 1988; Hanson 2001).
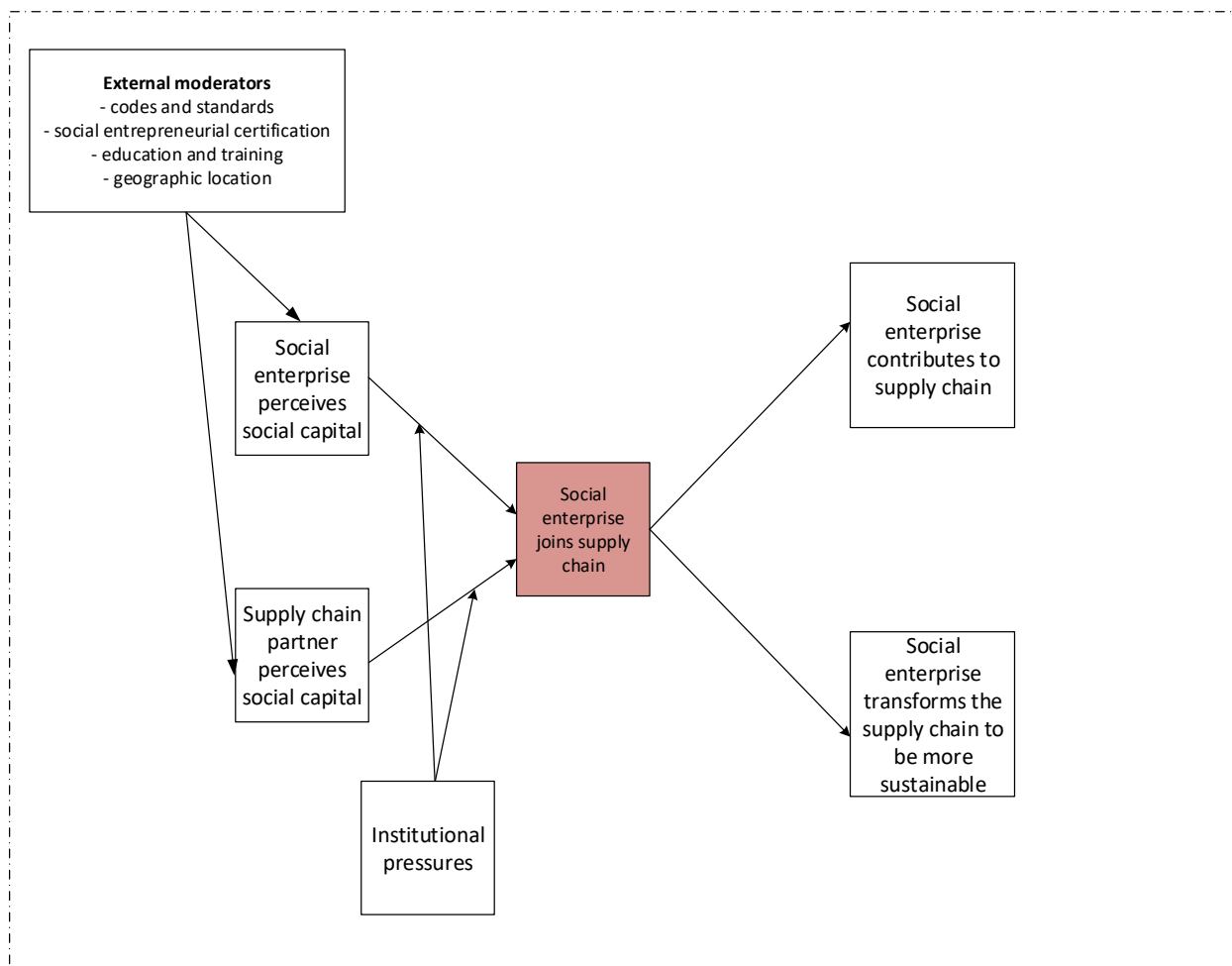
Figure 5.8.: External Moderators

As suggested by (Nicholls 2010) who explored the importance of isomorphic pressures on social enterprise legitimacy, isomorphic pressure benefits social enterprises and brings them legitimacy. We found social entrepreneurial certification as an essential and

influential factor that shapes the relationship between the supply chain members and social enterprises. Namely, it was a certified social enterprise from our study case 2, which was primarily understood rather than two comparable social enterprises. Dimaggio and Powell (1983) emphasized government recognition of key firms or organizations to be an essential process that may give these organizations legitimacy and visibility and lead competing firms to copy aspects of their structure or operating procedures in the hope of obtaining similar rewards.

Moderator education and training falls into both areas – social capital and institutional pressures. Social entrepreneurs with provided formal and non-formal education gain recognition from supply chain members more efficiently than two comparable social entrepreneurs. He was much better in explaining social entrepreneurial missions and the role of social entrepreneurs. As discussed by Helliwell and Putnam (1999), education can be seen as increasing rather than merely redistributing social capital. Education also affects legitimacy. Formal education, for. ex. Universities will increase student legitimacy by adapting to the changes demanded by external constituents (González, Arquero Montaño, and Hassall 2009), which can act as institutional pressures.

Social entrepreneurs seek collaboration with other social entrepreneurs, with profit driven firms, with non-profits, and with governments with high social responsibility. Potential partners must show basic levels of social capital. Cooperation is only possible if social capital is present equally. According to Mair and Marti (2006), social entrepreneurship has the power to influence social change and to address social needs. We found that social enterprises also have the potential to change other organizations plus members of supply chain. This identifies them as institutional entrepreneurs. As suggested by Dorado (2005), institutional entrepreneurs are the driving force behind the leveraging process. They can mobilize legitimacy and support by shaping people's perceptions, cognitions, and preferences (Leca et al. 2008) and (Wahid and Sein 2013). We believe that the role of social enterprises gets even more significant if they play the role of focal firms. Farrell and Knight (2003) discussed an informal mechanism for institutional change that rests on shifting power dynamics between members (for ex. of supply chains).

Recent research done by Cherrier et al. (2018) points out the likelihood for social entrepreneurs to initiate societal change in emerging markets under conditions of institutional complexity. Social enterprises namely gain power with available resources and social and political change-making skills (Dacin and Perrini 2011; and Wahid and Sein 2013). This research is one of the first examples that social enterprises can impose social change in the developed markets as well.

This research suggests that insights from social capital theory enhance our understanding of social enterprises who join supply chains. We found elements of structural, cognitive, and relational social capita, which are being brought into supply chains by social enterprises to be an essential connecting motive. We found relational social capital to be slightly more important among the supply chain members. Regarding relational social capital, increasingly prominent concept emerges for describing and characterizing the set of relationships of a specific firm (Inkpen and Tsang 2005).

According to Anderson and Jack (2002), social capital is not a "thing" but a process. It is the process of creating a condition for the active exchange of information and resources. It can only exist between people; accordingly, it is a relational artifact which we can only observe as one or the other of its dimensional manifestations (Anderson and Jack 2002). From this perspective, social capital can be envisioned as a bridge-building process linking individuals. This seems to explain the structural element of social capital; the process of social capital acquisition is the connecting link, and we believe that social enterprises can more effectively solve social problems. According to Hamby, Pierce, and Brinberg (2017), social entrepreneurship can propose scalable solutions applicable to a more complex net of institutions and individual members.

Throughout our research, we fund links between social enterprises and civil society. As explored by Sastry (2011), entrepreneurship, to be successful in the long run, requires participation by society, a civil society, and the state. It cannot succeed in a vacuum (Hermann 2016). Our findings showed that social capital plays an important role when supply chains try to connect with their customers. As suggested by Zhang et al. (2016), social capital theory indicates that consumers may invest and utilize social capital to influence shopping habits. According to our discoveries, social enterprises can effectively

promote their missions and solutions across supply chains. With this, we conclude that social capital is an antecedent and an enabler for social scaling.

Social entrepreneurial social capital impacts the recruitment of volunteers in local communities (Capriello, Altinay, and Monti 2018). Voluntary cooperation is easier to observe in a community that has inherited a substantial stock of social capital, in the form of norms of reciprocity and networks of civic engagement (Farrell and Knight 2003). Social capital refers to features of social organizations, such as trust, norms, and networks which improve the efficiency of society by facilitating coordinated actions (Farrell and Knight 2003).

Our research confirmed a strong relationship between social capital and institutional theory, although, we encountered a problem addressed by prior researchers. The fact is that organizations change due to various inter-related factors. Our research confirmed previous work done by Greenwood, Suddaby, and Hinings (2002), who claimed that regulatory agencies, such as state or professional associations, play an important role in promoting social capital. They enable the formation and reproduction of shared meanings and understandings. Role of professional institutions can also be classified as institutional pressures. Indeed, institutional pressures, including regulation and societal expectations, have been instrumental in shaping "green" supply chain management (Sarkis et al., 2011). Also, there is significant evidence to suggest (see Sarkis et al., 2011) that firms mimic the "green" supply chain management strategies of other firms, which they perceive to be successful (e.g., Aerts et al., 2006; Christmann and Taylor, 2001). As such, it is argued that institutional pressure is by far, the strongest driver of broader social and environmental supply chain strategies, irrespective of industry (Tate et al., 2010).

Greenwood, Suddaby, and Hinings (2002) give three reasons why professional associations are essential. First, organizations interact through them, and these interactions create shared understandings. Because professions are not necessarily homogenous, it is the task of the professional association to create intra-professional agreement over boundaries, membership, and behavior. Second, shared understandings also rise from a desire to represent a professional community to others. Third, professional associations can play an important role in monitoring compliance with

normative and coercive expectations. In our case, fire departments present a crucial institutional role. In their work, Andrews and Brewer (2010) suggest that the political engagement and social trust components are shown by fire service may be the most important focus for public policies seeking to build social capital and to decrease fire fatalities.

The possibility that policy interventions can construct positive social capital is a fundamental assumption of many law-makers. But the evidence in support of this claim remains clouded. Both supporters and objectors agree that the creation and destruction of social capital are marked by virtuous and vicious circles involving trust, norms, and networks. As a result, civil engagement increases or decreases. At one extreme, Putnam (1993) argues that social capital accrues through history. Its social availability and quantity are dependent upon its path of historical development. This is a view supported by empirical studies of civil society and collective action which observe that voluntary cooperation is more likely in communities with inherited stocks of social capital (McIlwaine, 1998). The opposing view holds that social capital can be fostered through external interventions that change the social rules and incentives in society, and that can result in a weakening of latent social capital. The latter view suggests that individuals and societies can hold potential or dormant social capital, which, in the right social conditions facing particular development challenge or shock, could be brought forward and used to reduce collective risk (Fukuyama, 2001).

Current policy debates amongst development donors on the merits of 'doing development' in partnership with government, the private sector or local community groups could take more regard of the need to build positive social capital links and foster trust between businesses to work for the most vulnerable. The search for general rules regarding the distribution of different types of social capital according to social variables has had little success. It has been suggested that urban communities tend to have strong bridging but weaker bonding capital, whereas rural communities more typically have strong bonding but weaker bridging capital (Woolcock, 2002). Similar distinctions are reported from gender analysis with women being associated with bonding and men with bridging or linking capital (Woolcock, 2002). But generalization is difficult, and perhaps

the most common rule of social capital is that its character depends not only on history but also on the social context. The search for anything other than indirect indicators of social capital for disaggregated studies of adaptive capacity is therefore unlikely to be fruitful. A combination of local qualitative studies linked to larger scale quantitative surveys may be a more appropriate way to proceed in comparative studies of adaptive capacity.

We believe that among suggested, there are examples of measurable and nonmeasurable propositions. Although our proposition deals with pure concepts for which no current testing is available, we choose (in the table below) those propositions that promise measurability, testing and development into hypotheses.

Table 6.1.: Selection of Testable Propositions

Proposition	Observations
Coercive institutional pressures are dominant drivers for social enterprises to join supply chains.	All three interviewed social entrepreneurs stated their need for improved codes and standards for fire prevention enforcement. Social entrepreneurs see social mission statements to be a norm. Norms form expectations which drive actions within an organization (companies in these networks tend to mimic the behaviors of other network members - Dimaggio and Powell 1983).
Institutional change occurs due to the presence of social entrepreneurs with strong relationships among supply chain members.	All three social enterprises build social capital in supply chains (there is growing empirical evidence that social capital contributes significantly to sustainable development - Pantoja 2000). The process of change was detected by several members of supply chains.
Social enterprises motivate supply chain members to understand the significance of change to a more sustainable environment. They dictate and provide values, knowledge and expertise for institutional change.	Social enterprises play a valuable part in supply chains by offering innovation and flexibility, enhancing corporate reputation, introducing new values, practices, rules and norms which generate social and cultural value (Nicholls 2006, Johnson et al. 2018, Porter 2019).
Greater evidence of social capital within social enterprises is positively associated with social entrepreneurial (sustainability) contributions to supply chains.	Approximately 73 % of all respondents agreed that legitimacy is important for a successful partnership in supply chains. Supply chain members acknowledge common values and social acceptability in their activities. All interviewees emphasized the importance of gaining legitimacy in cooperation with social enterprises.

Social Capital is required for supply chains to promote sustainability. Social capital theory is a valid tool for understanding young entrepreneurial organizations for creating or joining supply chains and influencing institutional change.	According to previous research, social capital and social capital theory are appropriate assessment tools for sustainability efforts. Eight of twelve analyzed supply chain members mentioned the positive impact of social enterprises on their sustainability. Social enterprises transfer part of sustainable solutions to the supply chain members through social capital (Zainon et al. 2014).
Members of supply chains with a high value of social capital prefer to cooperate with supply chain members with similar social capital characteristics. Practical examples show failure occur when there is poor long-term compatibility.	While social entrepreneurial actions are orchestrated to create social value (Di Domenico, Haugh, and Tracey 2010), corporate entrepreneurs strive for profit. Social capital increases collaboration and relationship development. Different and incongruent, poor fit, in social capital dimensions, especially structural and cognitive social capital, can result in organizations exiting supply chains.
Cognitive social capital is an effective and important enabler for collaboration across the supply chain.	Results demonstrate integrative relationships (i.e. SC and IT) and reveal added dimensions. Cognitive social capital is about shared understanding, shared language, codes and narratives. Social enterprise mission success depends on proper strategies and methods for collaborating with partners. Social entrepreneurs with high cognitive dimensions are likely to join and maintain sustainable supply chain relationships.
High coercive institutional pressures are positively associated with cognitive and structural social capital existence.	Coercive pressures stood out in all three social enterprises - typically found in institutions with strong regulations or laws. Coercion can also be seen in informal expectations within organizations (e.g., fire safety standards imposed by powerful actors over other actors, as in a parent-subsidiary relationship).

6.2.   Theoretical and Practical Contributions and Implications

The research aimed to understand the role of social enterprises in supply chains. During this research, we analyzed the link that connects social enterprises with supply chains. The link where it seems that everybody benefits were analyzed from the social capital perspectives. We tried to understand and explain the phenomenon by applying social capital theory and institutional theory. Social capital is believed to be an important resource promoting several other societal and individual benefits, such as responsive and well-performing institutions, as well as individual health and personal happiness (Baum 1997). The ideas of civil society and social capital are already being used as a means of conceptualizing the importance of participation in achieving health (Knack and Keefer 1997).

This dissertation is a contribution towards new knowledge in the area of supply chains, social entrepreneurship, and partially fire prevention. According to the current Deloitte Human Capital Trends report (Kaji et al. 2019), companies today must be "social" in a genuinely external sense. Customers, stakeholders, communities, business partners, and employees all have an enormous impact on a company's brand, growth, and profitability. Being a "social enterprise" means going beyond a focus on revenue and profit and clearly understanding that we operate in an ecosystem, and all these relationships are equally important (Kaji et al. 2019). This research contributes to the current understanding of how social enterprises can be institutional entrepreneurs within supply chains. The holistic analysis of this research added to existing research by identifying antecedences that should be considered within the supply chains.

The results will help to inform other types of sustainability and social enterprises, which include humanitarian, environmental, educational, and poverty. This study is the first of its kind that examines fire prevention from the perspective of supply chains and social enterprises. In particular, we build on social capital theory and institutional theory and look at how theories on institutional entrepreneurs, social capital, and institutions may contribute to the understanding of supply chains and social entrepreneurship. We studied

three supply chain cases, all established by social enterprises in order to understand mutual relationships.

A qualitative case study is needed for several reasons. First, a gap exists in terms of understanding how social enterprises can fulfill their mission across the supply chain and how they can connect with different members of supply chains. Second, there is also a gap in the literature of how different institutional pressures affect business growth and how this contributes according to the type of economy, particularly sustainable economic growth. Specifically, there is a need to understand how characteristics of the institutional environment of an internal (individual, firm) and external frameworks (community, country), such as trust, networking, and cooperative norms, may or may not favor the action of formal and informal institutions. In that regard, social capital and its combination with institutional pressures may provide unique insights into the vital process by which formal and informal institutions affect entrepreneurial activities.

The emphasis of this research was on understanding and explaining the relationships within supply chains through the lenses of social capital and institutional pressures. Based on the detailed literature review conducted for this dissertation, there is a research gap in terms of understanding how social capital and institutional pressures influence the success (mission fulfilment) of social enterprise orchestration of the supply chain.

Social capital theory applied in this research helps to understand the link between social networks and the bonding of people and organizations, through reciprocal relationships (Dekker and Uslaner 2003); such as those in a supply chain. As suggested by Lin (2001), social capital theory helps provide context. Social capital theory has argued three dimensions exist: structural, cognitive, and relational social capital (Nahapiet and Ghoshal 1998).

Within the research, we tried to examine and understand the role and the consequences of perceived social capital on the supply chain partners. Praszkier at al. (2009) has recognized the critical role of social enterprises in building social capital. Social enterprises are highly effective in achieving change through building social capital. Our study relates to developed markets, which are relatively rare in social capital research.

Our research showed that the methods we used could be applicable in understanding roles social enterprises might have in different ecosystems.

Testable and general observational propositions are derived that should serve as an impetus for future research, and implications of the proposed conceptual framework are discussed. A series of non-testable propositions was developed to understand and explain the phenomenon and suggested constructs.

According to institutional theory, institutions work as forces upon individuals and organizations by creating social pressures and restrictions, setting boundaries for acceptability. Such influence can be in the form of normative, coercive, and mimetic isomorphic pressures (Dimaggio and Powell 1983; Davidsson, Hunter, and Klofsten 2006).

We defend the argument that social capital and social capital theory seems to be an appropriate and applicable assessment tool for sustainability efforts. Eight of fifteen analyzed supply chain members have mentioned an impact that the social enterprise has on their sustainability.

As the concept of legitimacy and sustainability of social enterprises is indeed vital in creating both economic and social values (Zainon et al. 2014), we can support the idea of social enterprise transferring part of sustainable solutions to the supply chain members. It seems that with its missions and purposes, social entrepreneurship is sustainable by design (Zhang et al. 2014). In providing solutions to social problems (for example, fire safety), social enterprises act as institutional actors and can, therefore, pass sustainable solutions across supply chains. As suggested by Santos (2012) with this social entrepreneurs provide a distributed mechanism to identify neglected positive externalities, develop innovative solutions to address them and, often, change institutional arrangements so that the externality becomes visible and is internalized by societal actors.

6.3. Limitations

Our research was based on qualitative study methods. It used an in-depth study to collect information from different perspectives. It supports and upgrades the established models of relationships between social entrepreneurs and supply chain partners located in Canada, USA, and the UK. All three social enterprises under consideration are young start-ups – entrepreneurial -- with evolving and complementary supply chains. The three analyzed, and additional social enterprise in South Africa are currently the only four social enterprises in the world dealing with fire safety. The previously mentioned concern for a qualitative study's limitation is 'subjectivity.' This research is a cross-sectional and explanatory snapshot in nature because the supply chain data was collected during a discrete, limited period.

A qualitative study (especially in-depth case studies) has been recognized and accepted even in management accounting studies. We believe that there is not much debate about the acceptability of this doctrine.

This study has seven main research limitations:

(1) Cases analyzed in this research were conducted in the USA, Canada, and the United Kingdom. We are aware social entrepreneurship recognition varies from a country to country, which can also affect how different members of supply chains look at the topic, social entrepreneurship. Our research shows that there remains a misunderstanding about social enterprises in the current market. It seems that competing definitions of social entrepreneurship amplify the lack of public understanding.

Also, there are several levels of education available to social entrepreneurs, which varies significantly between the individual countries concerned in this research. We found that the legal basis and certification processes for the operation of social enterprises are also of importance. This is especially evident in the example of the British social enterprise. They are registered as "so called" community interest company. Community interest companies (CIC) were introduced by the United Kingdom government in 2005 under the Companies (Audit, Investigations and Community Enterprise) Act 2004, designed for

social enterprises who want to use their profits and assets for public good. Certification helps identify the company to the supply chain and end-users perspectives.

(2) With a focus on fire prevention, our research deals with the relationship between social enterprises and established supply chain partners. Because our case studies deal with only one social enterprise and supply chain partnership at a time, uncertainty remains whether the conclusions drawn from this particular case apply elsewhere. Debate exists, if the cases we have investigated are representative of the wider body of similarities. The results of this study are not generalizable without additional consideration of limitations. Although the case analysis is a fairly common approach to data collection, analysis, and reporting in many social science studies, concerns are raised about case study research. In particular, case evaluation, according to Guba and Lincoln (1981), sparks unusual problems of ethics. Due to a fire prevention focus, this research is sector specific. It is to expect that the results of our work can be applicable in similar sectors, such as public health and public safety and security. However, before using our model, the user must test the connections between individual players.

(3) Since the data is based on the analysis of qualitative -- descriptive -- data, the outcomes of research depend on its interpretation. Meaning that there is a significant amount of scope for observer bias. The subjective opinions of the researcher could intrude in the assessment of what the data means. We believe that the Dedoose software was adequate to handle 'subjectivity.'

(4) All three countries where our studied supply chains were among low context culture countries. We expect that the results would be different if the supply chain cases would come from the high context countries such as China, Italy, French, etc. A unique example is China, where social capital achieved through guanxi is dependent on the continued existence of personal relationships (Smart 1993). Guanxi refers to a pattern of social networks that is specific to China in the sense of a strong cultural specificity. The geographic location is only one of the criteria which defines social capital. We believe that from this point of view, the researcher must be careful when studying social capital and social capital related to constructs.

(5) From the broad perspective, we have three sectors potentially dealing with fire safety problems: the private, public sector, and nonprofit sectors (Jug 2018). It's predominantly the public sector that deals with fire prevention. Traditionally, each of the three sectors maintains the distinct roles and approaches —with the private sector focused on profitable markets, the public sector solving market failures, and the non-profit sector engaging citizens in meeting societal needs (Jug 2018). Supply chain members in all three analyzed cases were representatives of private and non-profit sectors.

To bring a sustainable solution, social enterprise will most likely include in their supply chains governments, commercial businesses, nonprofit organizations (NPO), foundations, education institutions, and different community groups as well. Although there was no government organization included in the research, we do not ignore their important role. Governmental organizations tend to collaborate with social enterprises to improve access to social programs' target beneficiaries. Social enterprises often apply for government contracts or grants together and later share human capital and intangible knowledge (best practices) to comply with a contract or grant (Meyskens et al. 2010).

(6) This research is a snapshot or cross-sectional study and explanatory because the data were collected on the supply chain aspects of a specific period. The oldest social enterprise analyzed in this research was established in 2015. With this, we had the opportunity to observe their short term sustainability impact. As Dyllick and Hockerts (2002) suggest that a two dimensional perspective consisting of short-term survival and long-term sustainable development is appropriately applicable to understanding the concept of sustainability we are aware of the importance of a long term observation study or longitudinal research.

(7) In this research, analyzed social capital was only linked to local markets as all three analyzed supply chains were domestic. It is to be expected that the level of social capital in the case of international supply chains will be different and should, therefore, be explored as such. Luo et al. (2004) found that the link between both customer relationships and business-partner social capital to performance is stronger for international joint ventures than for domestically owned firms. This implies that international firm-ownership structures, as opposed to domestic-ownership structures,

can cultivate customer relationships and business-partner social capital more effectively (Luo et al. 2004). The findings support the traditional view of international joint ventures (i.e., in which two or more parties create synergies by combining resources to secure a competitive position in the global marketplace (Blankenburg Holm, Eriksson, and Johanson 1996; Luo et al. 2004)

(8) Before the start of our research, the main researcher was connected with one of the analyzed social enterprises and their supply chains. It was a voluntarily formed relationship where the main researcher acted as a consultant in developing fire prevention plans. As the research progressed, the relationship vanished and did not affect the research protocol.

Suggestions on how to approach these limitations and constraints are given and discussed in chapter Avenues for Future Research.

6.4. Recommendations for Practice

For this study, practitioners are defined as social entrepreneurs and supply chain managers who are responsible for supply chains within various organizations.

The first recommendation for practitioners is maintaining initiative to establish supply chains which focus on social enterprises being a focal firm or members of supply chains. Supply chain connections are one of the social mission fulfilling possibilities for social enterprises. Forming relationships, sharing, and working together offers greater benefits than if operating alone. Benefits for organizations who act in compliance with these regulations include increased resources, legitimacy, and the attainment of accreditation and sanctioning. According to the research and findings of others, supply chains deliver substantial benefits and advantages to their partners (Cao and Zhang 2011).

Our research shows that social enterprises strive for more intensified connections in their supply chains. Specifically, social enterprise mission success depends on the application of proper collaborative strategies and methods. Supply chain networks combined with cross sector collaboration is the most effective way of solving social problems such as fire safety. An exemplary practice is a series of fire prevention related activities that run currently within a religious-based church in the African-American community in Worcester, MA. The primary project initiator is a local social enterprise which connects nonprofit organization called National Fire Protection Association and some local profit-driven enterprises in their supply chain.

Another suggestion is the development of supply chains to build partnerships for addressing acute social problems. Education should primarily be focused on supply chain managers who are in charge of profit-driven supply chains.

The third recommendation for practitioners targets social enterprises. Social enterprises social missions are essential factors which motivate members of the supply chain towards collaboration. The formation of organizational often lacks critical competencies or legitimacy, frequently being unable to develop these skills independently (Child & Faulkner, 1998, p. 851). In finding partners, supply chain members, social enterprises need to consider their fundamental social missions. As stated by Avery and Swafford

(2009), we believe that additional research on social capital could benefit practitioners and further the knowledge base of operations management research. Proposals and our vision for further research are described in detail in the next section.

6.5. Avenues for Future Research

For future research, we have been identified nine different topics:

a. An option for a company to use to address social problems is shared value. With shared value, we understand that there are opportunities for innovation and growth in trading social issues as business solutions as defined by Leadbeater (1997). It is a management strategy in which companies find business opportunities within social problems. According to Kilpatrick, Bell, and Falk (1999) and Porter and Kramer (2011), shared values present as one of the deliveries of social capital. In this case, shared values can be understood as the intersection between society and corporate performance (Pirson 2012). In other words, we can reasonably anticipate that the participation of social enterprises in supply chains will produce shared value, which later improve supply chain sustainability. This knowledge, combined with continued future research raises the question: How can we upgrade our current models of shared values to include the important contribution of social enterprises? By knowing this and for future research, we suggest an upgrade of our model with shared value as one of the important contributions of social enterprise. An upgraded model is shown in the picture below (Figure 6.1.). This diagram has three main categories: antecedents of social enterprises entering supply chains, supply chain members working with social enterprises, and the outcomes of the new modified supply chain.
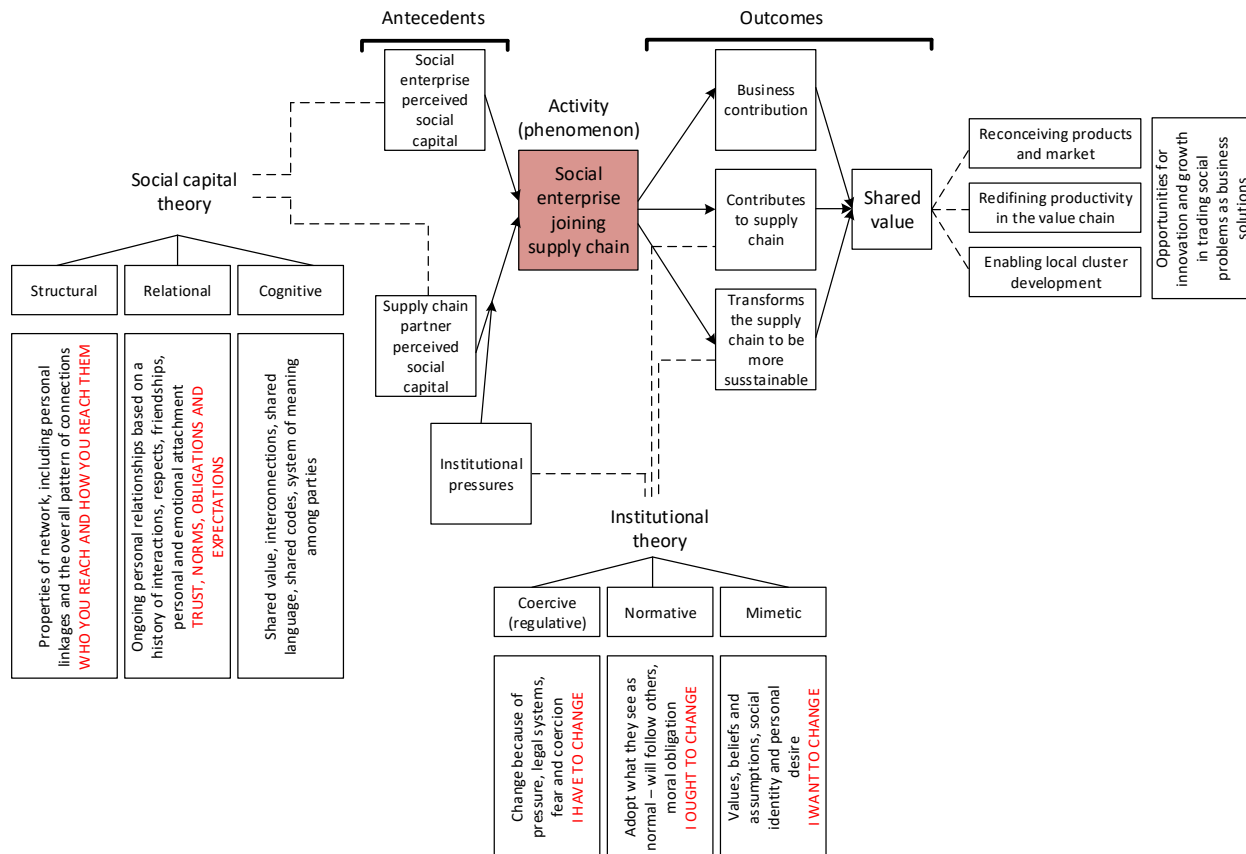
Figure 6.1.: Suggested model for future research.

b. The concept of shared value can be defined as policies and operating practices enhancing a company's competitiveness while simultaneously advancing the economic and social conditions within the communities in which it operates (Porter and Kramer 2011). Shared value creation focuses on identifying and expanding the connections between societal and economic progress. The concept rests on the premise that both economic and social growth must be addressed by using value principles (Porter and Kramer 2011). Value is defined as benefits relative to costs, not just benefits alone. Value creation is an idea that has long been recognized in business, where profits are revenues earned from customers minus the costs incurred. However, businesses have rarely approached societal issues from a value perspective but have treated them as peripheral matters. This has obscured connections between economic and social concerns. To remain competitive and secure organizational longevity, Porter and Kramer (2011) suggest that managers should view corporations as socially embedded and

actively uncover potential for value creation by stakeholders. While philanthropy and socially responsible corporations focus their efforts on "giving back" or minimizing the harm business has on society (Porter and Kramer 2011), shared value focuses company leaders on maximizing the competitive value of solving social problems in new customers and markets, cost savings, talent retention, and more.

c. This research is a snapshot, or cross-sectional, and explanatory because the data on the aspects of supply chains were collected over a specific period. To understand the dynamic nature of analyzed supply chains plus environmental roles of social enterprises as a focal firm, we suggest conducting longitudinal research on one of the analyzed cases. The use of longitudinal methods has an established place in the pursuit of understanding of physical phenomena. Its positive approach relies on replicability over time to determine knowledge (Galloway, Kapasi, and Whittam 2015). Longitudinal investigations are valuable for exploring cause and effect plus dynamism within the social sciences, as well as for exploring business potentials. Since all three analyzed social enterprises are young, longitudinal research seems to be even more important. According to Galloway et al. (2015), the longitudinal study requires ongoing communication and relationship with a small, manageable number of contacts making it suitable for the entrepreneurship domain. In this research, we found many factors that influence the presence of various members in the supply chain. Since longitudinal research of entrepreneurship would typically start with entrepreneurship education at various formal and informal levels, we believe that this type of study could yield new and meaningful results.

Another important reason why we believe that longitudinal research is appropriate lies in our primary example, fire prevention. Results of any preventive activities are not immediate. It is a long process of investing in safety and behavioral changes. Fire prevention success is measured by how well we: 1) avoid fires; 2) reduce fire related deaths and injurie, and 3) minimize fire related property damage and business interruptions. This leads us to the important question: Are these objectives being met in our society?

The significance of a longitudinal study will be particularly relevant when it comes to educating children. With youth, specific fire prevention programs count on children transferring their newly acquired knowledge about fire prevention to their domestic environments. Another assumption for these children is to follow fire prevention principles for adults. Preventive efforts may have differential success according to social class, educational background, age, and sex (Fielding 1978), which is one more reason why we see longitudinal research to be important. Similarly, Moynihan and Flesher (1998) suggested the use of longitudinal research to analyze the juvenile fire setting. According to Moynihan and Flesher (1998), future firesetting risks cannot be measured without a 5-10 year longitudinal study.

d. Supply chains analyzed in this research are all traditional pipe-line style supply chains. The question arises: How would results change if the analyzed cases were platform-based supply chains. In cases of platform supply chains, there is a node called a differentiation point where common components are assembled with differentiating components (Yadav et al. 2009). Regarding the definition of a platform, Lindquist et al. (2008) said that there is not one unified way of describing what a platform is because researchers often have their definitions. Simpson et al. (Simpson et al. 2014) defined a product platform to be a set of parameters, features, and components that remain constant from product to product within a given product family. Meyer, et al. (1997) defined a platform as a basic architecture composed of sub-systems or modules and the interfaces between them. Lindquist et al.'s (2008) description of platforms addresses the need for interfaces between interacting systems. Interfaces do not necessarily refer to physical interfaces; they can also refer to data exchange; heat transfer or various other factors influencing surrounding systems.

As supply chains are increasingly digitized, the most successful will evolve into platform-enabled ecosystems. According to Rusch (2019), a platform is a business model that creates value by facilitating exchanges between two or more interdependent groups. To make these exchanges happen, platforms harness and create large scalable networks of users and resources that can be accessed on demand (Rusch 2019). Platforms create communities and markets with network

effects that allow users to interact and transact. As the platforms' supply chains depend on collaboration, the question remains, what role does social capital play in the process?

e. An important change in future supply chains will come with blockchain technology. A blockchain is a distributed ledger that records and secures transactions in a peer-to-peer network (Chen 2018). Blockchain technology and distributed ledgers are attracting massive attention and trigger multiple projects in different industries (Lele 2019). Blockchain was listed as the World Economic Forum 2018 Mega Trend: How is blockchain technology being used to enable greater social impact, economic development, and empowerment in partnership with governments, municipalities, and blockchain foundations.

An important source of information within the blockchain is open-source community contributions. According to Hertel, Niedner, Herrmann (2003) and Chen (2018), it is possible that core developers of open-source projects are motivated by things beyond financial gain——such as reputation, social capital, and expertise——and thus keep making their contributions. As it seems, in modern supply chains, social capital will play a very important role. According to some scholars, (Saberi et al. 2018) blockchains as distributed, immutable, transparent, and trustworthy databases, shared by a community, can also influence sustainable supply chain networks

f. According to our findings, social capital plays an important role in supply chains. According to Davies et al. (Davies and Ryals 2010), social capital plays a significant role in fair-trade business models. The World Fair Trade Organization defines fair trade as a trading partnership, based on dialogue, transparency, and respect, that seeks greater equity in international trade. It also contributes to sustainable development by offering better trading conditions and securing the rights of marginalized producers and workers. As stated by Davies et al. (Davies and Ryals 2010), a major contributing factor for fair trade companies in achieving fair trade position (for ex. in the coffee and chocolate markets) is through the creation and use of social capital. Through several close alliances and social networks, companies utilize their fair trade values as a commercial resource to

build ties with powerful organizations. In the future, it would be interesting to study the supply chains of fair trade organizations who emphasize social capital. In addition to that, it would be valuable to perform compare-contrast based research between the cases that we analyzed and comparable fair trade supply chains.

g. This research strongly emphasized social capital. We concluded that social capital plays an important role in the success of social enterprises. As it seems, the level of social capital also depends on generational, demographic, and socioeconomic attributes, plus local market conditions. Some recent research associates the presence of social capital with the added variable of age (Zhang and Acs 2018). It seems that generation-Z individuals born from 1995 to 2015 play a unique roles (Grow and Yang 2018). They have a passion for social change while craving personal purpose and fulfillment (Jenkins 2018). It seems that, in the future, it will be particularly interesting to study the role of generation-Z on social entrepreneurial success.

h. As previously suggested by Pierce et al. (2016), we believe that future research should be directed towards more fully understanding the dynamics of the processes which underlay the relationship of social capital/civic culture with the disaggregated components of both institutional performance and the composite measures of sustainability. Plus, we envision exploring related connections with public policy domains such as public health, public safety, and fire safety.

i. This research did not address government institutions as important member of supply chains. Expected mutual impact between governments and social enterprises exists. Governmental organizations tend to collaborate with social enterprises to improve access to social programs' target beneficiaries. As social enterprises will benefit from the government (founding, network), governments (and local communities) will benefit from social enterprises. The influence of social enterprises on governmental policies needs to be more carefully researched.

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Appendixes

Interview questionnaire

<u>Interview Participant Consent Form</u>

Title of Research Study: The role of social enterprises in the supply chain

Investigator: Dr. Ales Jug, Doctoral Candidate, WPI Foisie School of Business

Supervised by: Prof. Joseph Sarkis, Prof. Sharon Johnson, Prof. Frank Hoy, Worcester Polytechnic Institute and Prof. Brian Meacham, Meacham Associates

Purpose: This research, which is a part of my doctoral dissertation at WPI, seeks to understand social enterprise and entrepreneurship capabilities in transforming institutions to strengthen supply chain sustainability and promote fire prevention. This research aims to document the possible changes organizations might encounter when partnering with social enterprises.

Procedures: Participation in this project will require you to answer open and closed questions in semi-structured interview format. This interview will take approximately one and one-half hours (1.5) to complete. I will be asking you about the supply chain, partnering with local community organizations and your collaboration with social enterprises. For future reference and accuracy, I respectfully request that we audio record this conversation and seek your permission. If you choose not to be recorded, I will take notes instead. I expect to conduct only one interview; however, follow-up interviews may be needed for added clarification. If so, I will contact you individually by e-mail/phone to request a follow-up interview.

Questions for the supply chain members (except Social enterprises)

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1. Please tell me something about yourself and your role in organization X (respondent organization?).

Probes: (Organizational, Social and Demographic Characteristics of Respondents):

    a) Age, work experience, education

    b) How long have you been working in organization X?

    c) What are your job position and job profile/role?

    d) Which function or department in organization X does your job position reside?

    e) Did you have any previous position in organization X?

2. Please tell me more about your organization.

3. In which area of fire prevention does organization X operate?

Explanation: For this interview, fire prevention is a series of measures and practices directed toward the prevention and suppression of destructive fires. Effective prevention is dependent on accurate characterization of risk (Elder et al., 1996). Prevention effectiveness refers to the degree to which the fire service avoids or minimizes the incidence of fires (Coutler, 1979).

Topics where the organization in the area of fire prevention can operate are:

    A. Active fire prevention systems (AFP)

    B. Passive fire protection systems (PFP)

    C. Organizational measures

    D. Not applicable

    E. Any other…Please explain.

Explanation: For this interview

- **Active fire protection** (AFP) is an integral part of fire protection. AFP is characterized by items and/or systems, which require a certain amount of motion and response in order to work, contrary to passive fire protection.

- **Passive fire protection measures** (PFP) are intended to contain a fire in the fire compartment of origin, thus limiting the spread of fire and smoke for a limited period of time, as determined the local building code and fire code.
- **Organizational measures** are education and training, communication with fire brigade, fire order and fire order requirements.

4. Please tell me about major stakeholders (partners) for organization X?

5. How do you classify your organization?

    A. For-profit organization (private for-profit sector)
    B. Social enterprise
    C. Public sector
    D. Civil society organization
    E. Other (please explain)

Explanation:

For this interview:

- *For-Profit organization* - While for-profit organizations may have a variety of goals, their primary mission is to generate profit and develop effective products and services that are valuable to consumers.
- *Social enterprise* is an organization or business that has a dual purpose of solving a social problem and generating enough money to be financially sustainable (B-corps, Social enterprise mark CIC...).
- The *public sector* is organizations that are owned and operated by the government and exist to provide services for its citizens (health care, education, protection, legislation, etc.).

- ***Civil society organizations*** can be defined to include all non-market and non-state organizations outside of the family in which people organize themselves to pursue shared interests in the public domain. Examples include community-based organizations and village associations, environmental groups, women's rights groups, farmers' associations, faith-based organizations, labor unions, co-operatives, professional associations, chambers of commerce, independent research institutes and the not-for-profit media.

Theme 1 (Supply chain)

    6.   Please tell me about major supply chain processes in organization X?

Explanation: For this interview, The supply chain, which is also referred to as the logistics
network, consists of suppliers, manufacturing centers, warehouses, distribution centers, and retail outlets, as well as raw materials, work-in-process inventory, and finished products that flow between the facilities.

    7.   Does each product/service have a separate supply chain?

    8.   What does sustainability mean to organization X?

Explanation: For this interview, a supply chain may be defined as an integrated process wherein a number of various business entities (i.e., suppliers, manufacturers, distributors, and retailers) work together in an effort to: (1) acquire raw materials, (2) convert these raw materials into specified final products, and (3) deliver these

final products to retailers. This chain is traditionally characterized by a forward flow of materials and a backward flow of information.

9. How does the organization X manage its supply chains regarding…
    A. Sustainability
    B. Legitimacy
    C. Others

Explanation:

For this interview:

- **Sustainability** is the management of environmental, social and economic impacts (triple bottom line), and the encouragement of good governance practices, throughout the lifecycles of goods and services (Savitz, 2013).
- **Legitimacy** is a generalized perception or assumption that the actions of an entity are desirable, proper, or appropriate within some socially constructed system of norms, values, beliefs, and definitions (Suchman, 1995).

10. Generally speaking, can you explain the reasons for implementing sustainability in your supply chain?
    a. People (Social)
    b. Profit (Economic)
    c. Planet (Environmental)
    d. Any other?

Follow up:

- Explain the effect of economics on implementing sustainability in the supply chain.

- Explain the effect of reputation on implementing sustainability in the supply chain.
- Explain the effect of regulation on implementing sustainability in the supply chain.
- Explain the role of government and society have in implementing sustainability in the supply chain.

11. Please explain the role internal stakeholders such as managers, employees, and top management play in implementing sustainability in the supply chain?

12. Can you explain the role external stakeholders such as suppliers, consumers, distributors/retailers, and end users play in implementing sustainability in the supply chain?

13. Have you ever heard of the term "social entrepreneurship"?

    i. Yes
   ii. No

If YES: For clarification of understanding: Can you please give me an example of an enterprise you consider to be a social enterprise

Explanation: For this interview, a social enterprise is an organization or business that has a dual purpose of solving a social problem and generating enough money to be financially sustainable (B-corps - B Corps are for-profit companies certified by the nonprofit B Lab to meet rigorous standards of social and environmental performance, accountability, and transparency; Social enterprise mark CIC - Social Enterprise Mark CIC is the only UK based social enterprise accreditation authority, which ensures the

social enterprise business model remains ethical, credible and commercial through accreditation)

14. Can you explain the role of social enterprise in implementing sustainability in the supply chain?

15. Are you currently affiliated with any social enterprise?

      i. Yes

     ii. No

Follow up:

    If YES: Can you explain your experiences while working with social enterprises?

    If NO: Why not?

16. What are the motivational factors that drive you to partner with social enterprises/other members of the supply chain?

    A. Sharing the costs

    B. Knowledge exchange

    C. Boosting sales

    D. Improved productivity

    E. Supporting local community

    F. New business opportunities

    G. Enhancing the corporate image

    H. Reducing uncertainty

    I. Fulfilling the mission

J. Access to resources

K. Gaining legitimacy

L. Expanding the network

M. Any other

Theme 2 (Institutional theory)

17. Has the organization X changed after being a member of the supply chain or after partnering specifically with the social enterprise?

   Follow up:

   ● When?

   ● In what way?

   ● How did you advocate for fire prevention before and now?

18. Government control over the fire safety is sufficient.

   i. Yes

   ii. No

19. Do you think there should be better codes and standards for enforcing fire prevention?

20. Do you feel responsible to society to help to improve the fire safety?

21. Do you think that involvement with the other supply chain members will alter the organization (X) values?

22. Where do you see the influence of partnering with other supply chain members?

23. Which group of stakeholders/partner in the supply chain were the biggest driver of change?

24. What were the risks you considered before partnering with social enterprise?

25. As a decision maker, did you ever feel compelled to utilize, implement, or advocate fire prevention in the organization or outside the scope of your organization?

26. Did you introduce any of the fire prevention measures learned from social enterprise at your organization? Did other institutions or groups later copy any of them?

27. Is partnering with the social enterprise(s) required for building legitimacy? For building a successful organization?

Explanation:

For this interview:

● **legitimacy** is a generalized perception or assumption that the actions of an entity are desirable, proper, or appropriate within some socially constructed system of norms, values, beliefs, and definitions (Suchman, 1995).

28. Is fire prevention required for legitimacy today for successful organizations?

29. How does organization X select future partners/suppliers?

Follow up:

- What do you look for in a reliable partner?

- Do you rely on third-party ratings? Why?

- Reputation? Why?

- Fire safety? Why?

30. Have any of the supply chain partners influenced organization X's reputation?

Follow up:

- Previously?

- Today?

31. Will partnering with social enterprises improve your organization's reputation?

Follow up:

- Why?

- Why not?

32. How important is a "good reputation" for your business success?

Follow up:

- Why?

- Why not?

33. Is organization X willing to change the way it does business to improve the reputation?

Follow up:

- Why?
- Why not?

Theme 3 (Social Capital)

34. How often does it happen that you or your colleagues do a social activity outside of the work context with the members of the local community (e.g., volunteering for various local organizations, helping with the events, sports activities, etc.)?

35. During the last month, approximately how much time in total did you, or your colleagues spend on activities, in clubs, associations, groups, networks or in supporting other people in the community?

   A. None

   B. Less than 1 hour in a month

   C. 1 to 4 hours in a month

   D. 5 to 10 hours in a month

   E. 11 to 20 hours in a month

   F. More than 20 hours in a month

   G. Don't know

Follow up:

- Where any of the activities related to fire prevention?
- Before the partnering with social enterprise/after partnering with social enterprise

36. Has organization X been involved with any of these groups, clubs or organizations in the last 12 months?

   A. Children's education/schools

   B. Youth/children's activities (outside of school)

C. Education for adults

D. Sports/exercise (taking part, coaching or going to watch)

E. Religion

F. Politics

G. Health, disability, and social welfare

H. The elderly

I. Safety, first aid

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K. The environment, animals

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M. Local community or neighborhood groups

N. Citizen's groups

O. Hobbies/recreation/arts/social clubs

P. Trade union activity

37. What is the most important source of expertise or advice which this/these group(s) receives/receive from you?

38. What is the most important source of expertise or advice which organization X receives from this/these community group(s)?

39. What did you get from social network while partnering with social enterprise?

Explanation:

For this interview:

A social network is a social structure made up of a set of social actors (such as individuals or organizations), sets of dyadic ties, and other social interactions between actors.

40. How did established social network help you regarding to your business?

41. Has any new business partner been introduced from this social network?

42. Is the social network important for your business?

      i. Yes

     ii. No

43. Could you rate the importance of social networks according to your business creation process? (10= highly important, 1= no importance at all)

44. Is there anything else important that you would like to share with me that we have not discussed yet?

45. Thank you so much for your time and sharing this information with me. It will be very helpful for my research.

Questions for Social enterprises

1. Please tell me something about yourself and your role in organization X (respondent organization?).

Probes: (Organizational, Social and Demographic Characteristics of Respondents):

   a) Age, work experience, education
   b) How long have you been working in organization X?
   c) What are your job position and job profile/role?
   d) Which function or department in organization X does your job position reside?
   e) Did you have any previous position in organization X?

2. Please tell me more about your organization.
3. In which area of fire prevention does organization X operate?

Explanation: For this interview, fire prevention is a series of measures and practices directed toward the prevention and suppression of destructive fires. Effective prevention is dependent on accurate characterization of risk (Elder et al., 1996). Prevention effectiveness refers to the degree to which the fire service avoids or minimizes the incidence of fires (Coutler, 1979).

Topics where the organization in the area of fire prevention can operate are:

   A. Active fire prevention systems (AFP)
   B. Passive fire protection systems (PFP)
   C. Organizational measures
   D. Not applicable
   E. Any other…Please explain.

Explanation: For this interview

- **Active fire protection** (AFP) is an integral part of fire protection. AFP is characterized by items and/or systems, which require a certain amount of motion and response in order to work, contrary to passive fire protection.

- **Passive fire protection measures** (PFP) are intended to contain a fire in the fire compartment of origin, thus limiting the spread of fire and smoke for a limited period of time, as determined the local building code and fire code.

- **Organizational measures** are education and training, communication with fire brigade, fire order and fire order requirements.

4. Please tell me about major stakeholders (partners) for organization X?

5. How do you classify your organization?

    A. For-profit organization (private for-profit sector)

    B. Social enterprise

    C. Public sector

    D. Civil society organization

    E. Other (please explain)

Explanation:

For this interview:

- ***For-Profit organization*** - While for-profit organizations may have a variety of goals, their primary mission is to generate profit and develop effective products and services that are valuable to consumers.

- ***Social enterprise*** is an organization or business that has a dual purpose of solving a social problem and generating enough money to be financially sustainable (B-corps, Social enterprise mark CIC...).

- The ***public sector*** is organizations that are owned and operated by the government and exist to provide services for its citizens (health care, education, protection, legislation, etc.).
- ***Civil society organizations*** can be defined to include all non-market and non-state organizations outside of the family in which people organize themselves to pursue shared interests in the public domain. Examples include community-based organizations and village associations, environmental groups, women's rights groups, farmers' associations, faith-based organizations, labor unions, co-operatives, professional associations, chambers of commerce, independent research institutes and the not-for-profit media.

6. Do you treat your organization as a social enterprise?

   Follow up:

   Why?

Theme 1 (Supply chain)

7.   Please tell me about major supply chain processes in organization X?

Explanation: For this interview, The supply chain, which is also referred to as the logistics
network, consists of suppliers, manufacturing centers, warehouses, distribution
centers, and retail outlets, as well as raw materials, work-in-process inventory, and
finished products that flow between the facilities.

8. Does each product/service have a separate supply chain?

9. What does sustainability mean to organization X?

Explanation: For this interview, a supply chain may be defined as an integrated process wherein a number of various business entities (i.e., suppliers, manufacturers, distributors, and retailers) work together in an effort to: (1) acquire raw materials, (2) convert these raw materials into specified final products, and (3) deliver these final products to retailers. This chain is traditionally characterized by a forward flow of materials and a backward flow of information.

10. How does the organization X manage its supply chains regarding…
    A. Sustainability
    B. Legitimacy
    C. Others

Explanation:

For this interview:

- **Sustainability** is the management of environmental, social and economic impacts (triple bottom line), and the encouragement of good governance practices, throughout the lifecycles of goods and services (Savitz, 2013).
- **Legitimacy** is a generalized perception or assumption that the actions of an entity are desirable, proper, or appropriate within some socially constructed system of norms, values, beliefs, and definitions (Suchman, 1995).

11. Generally speaking, can you explain the reasons for implementing sustainability in your supply chain?
    a. People (Social)

b. Profit (Economic)

c. Planet (Environmental)

d. Any other?

Follow up:

- Explain the effect of economics on implementing sustainability in the supply chain.
- Explain the effect of reputation on implementing sustainability in the supply chain.
- Explain the effect of regulation on implementing sustainability in the supply chain.
- Explain the role of government and society have in implementing sustainability in the supply chain.

12. Please explain the role internal stakeholders such as managers, employees, and top management play in implementing sustainability in the supply chain?

13. Can you explain the role external stakeholders such as suppliers, consumers, distributors/retailers, and end users play in implementing sustainability in the supply chain?

14. How will you define term "social entrepreneurship"?

For clarification of understanding: Can you please give me an example of an enterprise you consider to be a social enterprise

Explanation: For this interview, a social enterprise is an organization or business that has a dual purpose of solving a social problem and generating enough money to be

financially sustainable (B-corps - B Corps are for-profit companies certified by the nonprofit B Lab to meet rigorous standards of social and environmental performance, accountability, and transparency; Social enterprise mark CIC - Social Enterprise Mark CIC is the only UK based social enterprise accreditation authority, which ensures the social enterprise business model remains ethical, credible and commercial through accreditation)

15. Can you explain the role of social enterprise in implementing sustainability in the supply chain?

16. Are you currently affiliated with any other social enterprise?

      i. Yes
     ii. No

   Follow up:

      If YES: Can you explain your experiences while working with social enterprises?

      If NO: Why not?

17. What are the motivational factors that drive you to partner with social enterprises/other members of the supply chain?

     A. Sharing the costs
     B. Knowledge exchange
     C. Boosting sales
     D. Improved productivity
     E. Supporting local community
     F. New business opportunities

G. Enhancing the corporate image

H. Reducing uncertainty

I. Fulfilling the mission

J. Access to resources

K. Gaining legitimacy

L. Expanding the network

M. Any other

Theme 2 (Institutional theory)

18. Has the organization X changed after being a member of the supply chain?

Follow up:

● When?

● In what way?

● How did you advocate for fire prevention before and now?

19. Government control over the fire safety is sufficient.

      i. Yes

     ii. No

20. Do you think there should be better codes and standards for enforcing fire prevention?

21. Do you feel responsible to society to help to improve the fire safety?

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