M.Sc. Thesis in Business & Management
Stockholm School of Economics

Stronger Together

A Qualitative Study on the Role of Social Capital in Sustaining IT and Software SMEs during the War in Ukraine

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Spring 2024

Acknowledgements

Thank you, Sam Ruiqing. Your exceptional guidance and unwavering support as our supervisor throughout the entire process of this thesis has played a crucial role in guiding us and enhancing the quality of our work.

Thank you, Marcus Lagercrantz, Oscar Sundbaum, and Desirée Öberg-Wikström. Your attention to detail and constructive suggestions have undoubtedly enhanced the clarity and coherence of our writing.

Thank you to all interviewees for generously sharing your invaluable insights and time with us. Your perspectives and experiences have enriched our research immeasurably, providing essential depth and understanding to our study. Your openness, candor, and willingness to engage in meaningful dialogue has been instrumental in shaping the direction and quality of our work.

Lastly, we want to express gratitude and respect to everyone who is fighting for the freedom of Ukraine.

Abstract

This is an explorative study investigating the role of social capital in enabling small and medium-sized enterprises (SMEs) in the Ukrainian IT and software industry to sustain their operations in the aftermath of Russia's full-scale invasion on February 24, 2022. With a qualitative research approach, grounded in social constructivism and interpretivism, and through semi-structured interviews with key stakeholders from 18 SMEs, the research explores internal and external social capital and highlights the interplay between cognitive, relational, and structural dimensions of social capital, underscoring its critical role in times of adversity. Internal social capital, characterized by shared values, trust, and strong employee-employer relationships, emerged as a fundamental asset for organizational resilience, reinforcing cognitive and relational social capital within firms. Moreover, external social capital, particularly with international clients, and formal and informal business networks, facilitated access to resources and support. Theoretical insights suggest further exploration of social capital dynamics and its interaction with leadership and financial performance.

Key Words: Social Capital, Organizational Resilience, Ukrainian SMEs, Violent Conflicts, Crisis Management

Abbreviations and Definitions

SME	Small and medium-sized enterprise
Company, organization, firm	Will be used interchangeably and refer to the SMEs studied.
Client	Clients refer to the clients of the SMEs
War, invasion, crisis	Will be used interchangeably referring to Russia's full-scale invasion starting on the 24th of February 2022.

1.Introduction

1.1. Background

In the early morning of February 24, 2022, Russia launched its full-scale invasion against Ukraine, which marked a pivotal juncture for the country. The costs of fighting for freedom were unthinkably high for the population and economy. In the first month alone, over 7,000 civilians were killed or injured, with casualties escalating to 30,000 over two years (OHCHR, 2024). Amidst the chaos and uncertainty, non-essential activities in nearly every sphere of life came to a halt for several days. Moreover, the Russian invasion sent shockwaves throughout the whole world, profoundly affecting political, economic, cultural, and social spheres. It exposed the vulnerabilities in our economic system, carrying substantial social and political implications.

Ukraine is a post-Soviet country with a population of almost 42 million people (pre-war) (State Statistics Service of Ukraine, 2021). Over the history of its independence, the country's low trust to governmental institutions and high corruption index (Transparency International, 2023) have created unique pre-conditions for business growth and crisis resilience. As a developing country, Ukraine represents many emerging economies. In the past decades Ukraine has emerged as a beacon of the growing global IT industry, with a huge labor market of talented programmers and engineers. With generally competitive prices and high-quality talent, Ukrainian tech remains attractive to particularly European and American markets and stands as the only sector of the Ukrainian export economy that is fully operational during the war (IT Ukraine Association, 2024).

Small and medium sized enterprises (SMEs) are defined by the European Commission (2024) as an enterprise with 250 employees, and a turnover lower or equal to 50 million euros, or a balance sheet smaller than 43 million euros. In the European Union it is estimated that 64,4 percent of all workforce get employed in SMEs (Eurostat, 2019). Ukrainian IT is no exception, with around 97 percent of product-oriented and 87 percent of service-oriented IT companies having less than 200 employees (IT Ukraine Association, 2024). However, more research is needed on how SMEs respond to wars, armed conflicts, and other types of external shocks. Ukrainian SMEs faced an existential threat to their existence, with 64 percent of SMEs temporarily or permanently ceasing their operations. Despite these

challenges, Ukrainian SMEs displayed extraordinary resilience, with 91 percent of them successfully resuming activities (UNDP, 2024).

Social capital is recognized as a strategic tool to promote community resilience in response to crisis or disaster events (Norris et al., 2008; Wickes et al., 2016). Networks and bonds of individuals can facilitate recovery from crisis through mutual aid, enhanced motivation to overcome the struggle and regain lost resources. Moreover, social capital networks provide access to information, financial aid, as well as mental and emotional support during the crisis situation (Aldrich, 2010). While the eye of the world was focused on the battlefield, Ukrainian entrepreneurs continued working to fuel the economy and support the army to bring victory a bit closer day by day. The case of Ukraine offers a compelling context to explore how SMEs can survive in violent conflicts and especially what role social capital plays in resilience to such a crisis.

1.2. Problem Discussion and Research Gap

In today's interconnected world, businesses face multifaceted challenges, ranging from global pandemics to climate change and armed conflicts. Disruptions highlight the imperative for governments, individuals, and businesses to enhance their resilience to navigate complex and unpredictable environments in the modern day. These challenges necessitate proactive measures to fortify resilience and ensure continuity, safety and prosperity.

Amidst these dynamics, understanding how businesses can adapt to survive external shocks becomes crucial. However, the role of social capital in adaptation to a crisis is paramount, yet the existing studies seldom address SMEs in the context of violent conflicts. To be better prepared as a society and entrepreneurs we can learn from the case of Ukraine. As businesses grapple with the evolving landscape of digitalization, globalization, and geopolitical uncertainties, insights gleaned from this case can illuminate effective approaches to navigate turbulent environments. In the face of unyielding adversity, it is not merely the financial capital that keeps the wheels of the economy turning but the often-overlooked social capital that can serve as a bulwark against the tides of disruption. The war in Ukraine provides a unique opportunity to study how social capital can assist SMEs within the IT sector in surviving and thriving when faced with severe external shocks such as armed conflicts and wars.

1.3. Purpose and Research Question

The purpose of this study is to explore how SMEs in the Ukrainian IT and software industry utilized and managed their social capital in order to adapt to the conditions following Russia's invasion. We intend to examine the theoretical and empirical grounds to explore what role social capital plays for business continuity in the face of a war. By means of this exploration, we aim to comprehend the workings of social capital during times of crisis, providing a fresh outlook on surviving and adjusting that goes beyond conventional economic theories and methods. This study aims to provide managers with insights that will enable small and medium-sized organizations to make more informed decisions regarding how to manage external crises through social capital.

Consequently, our research question is as follows:
How did social capital enable IT and software SMEs in Ukraine to sustain their operations after Russia's invasion?

1.4. Expected Contribution

The contribution of our research is manifold. Firstly, we aim to fill in the gaps in the theoretical understanding of social capital implications in crisis situations, especially during armed conflicts, by examining the case of Russia´s invasion of Ukraine. As social capital is typically studied in the socio-economic context, we hope to bring a more nuanced perspective of its role in organizational adaptation and resilience.

Secondly, by examining the adaptability of Ukrainian SMEs through the lens of social capital, our expected contribution lies in providing empirical insights into how businesses in Ukraine responded to the external shock of the Russian invasion, advancing theoretical frameworks on social capital. Our study provides a new perspective on proactive steps that organizations can take to strengthen themselves against future crises by describing the proactive ways that social capital supports organizational continuation during instability. Additionally, our research offers practical implications for enhancing organizational resilience in turbulent environments and contributes to contextual understanding of business survival in a global and increasingly digital economy.

1.5. Main Focus and Delimitations

For the purpose and scope of this study, certain delimitations have been established. Firstly, while acknowledging the multifaceted nature of adaptation and resilience amidst crises, our research centers specifically on the role of social capital. Throughout the interview process, small and medium-sized enterprises (SMEs) were the focal point of inquiry, with the emphasis placed on organizational dynamics rather than individual managerial experiences relating to the war, unless directly impacting the organization's functioning. Consequently, our study does not explore the broader societal or individual-level adaptations to crisis situations. Additionally, although operational challenges were recurrent themes in the interviews, our analysis focuses on how social capital enabled firms to sustain their operations, rather than what operational challenges occurred.

2. Theoretical Background

2.1. War and SMEs

In the initial three months of 2023, the Armed Conflict Location & Event Data Project (ACLED) documented 8,265 battles, 7,198 instances of civilian-targeted violence, and 4,559 riots. This data indicates that for many entrepreneurs, war is perceived not as isolated incidents, but as a regular occurrence or even a constant reality (Audretsch et al., 2023). Despite such a violent environment being a norm for many organizations, most researchers focus on firms that operate in stable and predictable settings, missing out on entrepreneurs who operate in truly challenging environments. (Spicer, McDermott, and Kogut 2000).

A lot of research has been dedicated to firm survival in crisis environments (Salunkhe, Rajan & Kumar, 2023; Cucculelli & Peruzzi, 2020; Bosio et al., 2020). Some studies take a generative approach to the crisis and view it as an extreme and unexpected event (Buchanan, 2013, Doern et el., 2019), leaving the room open for individual interpretation of what actually is a crisis. Other studies explore organizational resilience and adaptation to rather specific crisis situations, such as natural disasters (e.g., Corey & Deitch, 2011; Aldrich, 2010; McEntire et al., 2002; Quarantelli, 1988), industrial crisis (Shrivastava et al., 1988), economics crisis (Bosio et al., 2020) or COVID-19 crisis (Batjargal et al., 2023)

Crisis situations created by violent and armed conflicts such as war bring uncertainty to the individuals' and organizations' future, but also put at risk physical security and even lives of people (Bonanate, 1979). Moreover, war affects the psychological health of people who are consistently in a state of fear and may witness horrible and unthinkable events (Roux-Dufort, 2007). The shock that comes with unexpected violence spreads into various facets of life leading to economic decline, unemployment, limited accessibility to regular utilities (Justino et al., 2013). The chaotic nature of war and disruption to everyday normal life (Stewart & FitzGerald, 2001) can deprive organizations of existing resources compelling them to seek new opportunities, particularly beyond the crisis zone (Fathallah, Branzei, Schaan, 2018). However, the impact of such 'entrepreneurial migration' can have adverse effects on the economic growth and recovery from war in developing countries (Solimano, 2002). While many

studies support that impact of war on economic activity can be severe and long-lasting (Naude, 2007; Lopez & Wodon, 2005; Rogoff, 2022), in some cases countries may experience post-war growth and economic development (Organski & Kugler, 1977; Collier 1999; Koubi, 2005). Lack of existing literature on organizational survival in armed and violent conflicts can be explained by reluctant behavior from entrepreneurs to disclose their experiences and results as they can be negative and impact entrepreneurial image (Brück et al., 2013).

When looking at the crises, researchers tend to consider different stages of crisis development and crisis management focusing on organizational response, resilience, and vulnerabilities in each of the stages. An early model of crisis management introduced by Fink (1986) identifies four stages: 1) the prodromal stage that signals about the upcoming crisis, 2) acute stage triggered by crisis event 3) chronic stage with long-lasting effects of the crisis, and finally 4) resolution. Later on this model was summarized by Smith (1990) into simpler three distinct stages, namely, a pre-crisis stage, a period of crisis and period of recovery. Following a similar path, Pauchant and Mitroff (1992) proposed a five-stage framework: signal detection, preparation to crisis or prevention, damage containment with focus on minimizing the impact, recovery from the damage and lastly learning from this experience (Doern et al., 2016).

2.2. Social Capital

More than a hundred years ago, Louis Hanifan (1916) identified social capital as goodwill, fellowship, mutual sympathy, and social intercourse among a collective of individuals and families constituting a social unit. Since then, various disciplines have embraced this concept, which, in general terms, identifies how involvement and participation in groups can yield beneficial outcomes for both the individual and the community (Portes, 1998).

Scrivens and Smith (2013) divide social capital into four dimensions, with the intent of facilitating the development of empirical measures: (i) personal relationships, (ii) social network support, (iii) civic engagement, and (iv) trust and cooperative norms. The first two dimensions are often used in sociology and present social capital as a resource for individuals built through networks (e.g., Coleman (1988), Lin (2001)). The notion of social capital in the fields related to economics and finance, is mostly related to the last two dimensions (e.g., Putnam et al., (1993), Putnam, (2000)), Fukuyama (1995),

Knack & Keefer (1997), La Porta et al. (1997), Guiso, Sapienza & Zingales (2004, 2008)). In this context civic engagement constitutes the activities through which agents contribute positively to social life and the community, e.g. through volunteering, political participation, and donations (Guiso, Sapienza, and Zingales, 2011, and Scrivens and Smith, 2013). Civic engagement can yield positive outcomes by nurturing trust and norms of reciprocity and cooperation (Lins, Servaes & Tamayo, 2017). Trust and cooperative norms encompass elements that shape the way agents act as members of society and how they behave towards each other. In this perspective, social capital serves as an enabler of cooperation and collective action, with the potential to support positive outcomes such as economic growth, environmental stewardship, and government performance. The mechanisms through which benefits can be derived include: (i) reductions in transaction costs achieved by a reduced need for formal contracts in the presence of information asymmetry (Knack and Keefer (1997)) and (ii) potentially more efficient resource allocation (Lins, Servaes, and Tamayo, 2017).

The dimensions mentioned by Scrivens and Smith (2013) are interconnected (Lins, Servaes & Tamayo, 2017). For instance, civic engagement can foster trust and cooperation, which in turn can generate further civic engagement; likewise, cooperation can stimulate trust, and vice versa. Additionally, social capital can manifest at various levels – societal, institutional, and individual – where some entities, including firms, may invest more in social capital than others (Coleman 1990, Leana and Van Buren, 1999, and Glaeser, Laibson, and Sacerdote, 2002). Social capital also has a dark side (MacGillivray, 2018) as it can foster ethnic hostility and patronage. In these cases, social capital can perpetuate existing systems of prejudice and discrimination, leading to division, inequality, and conflict (Aldrich, 2012a)

2.2.1 Conceptualization of Social Capital

Despite its growing popularity, social capital remains a subject of extensive debate, both in terms of its conceptualization and regarding how it should be correctly operationalized. Aldrich (2012b) contends that the research on social capital grapples with determining whether the concept embodies "the data about, reputations of, and information flowing between members of a group or if it is the network of relationships and connections" (Aldrich, 2012a). He proposes that some scholars emphasize social capital as the wires "through which information and resources run" (Social structure perspective), while other scholars underscore social capital as the electricity "running through those

wires, that is, the information and resources that are passed back and forth" (Network perspective) (Aldrich, 2012b) (Figure 1).

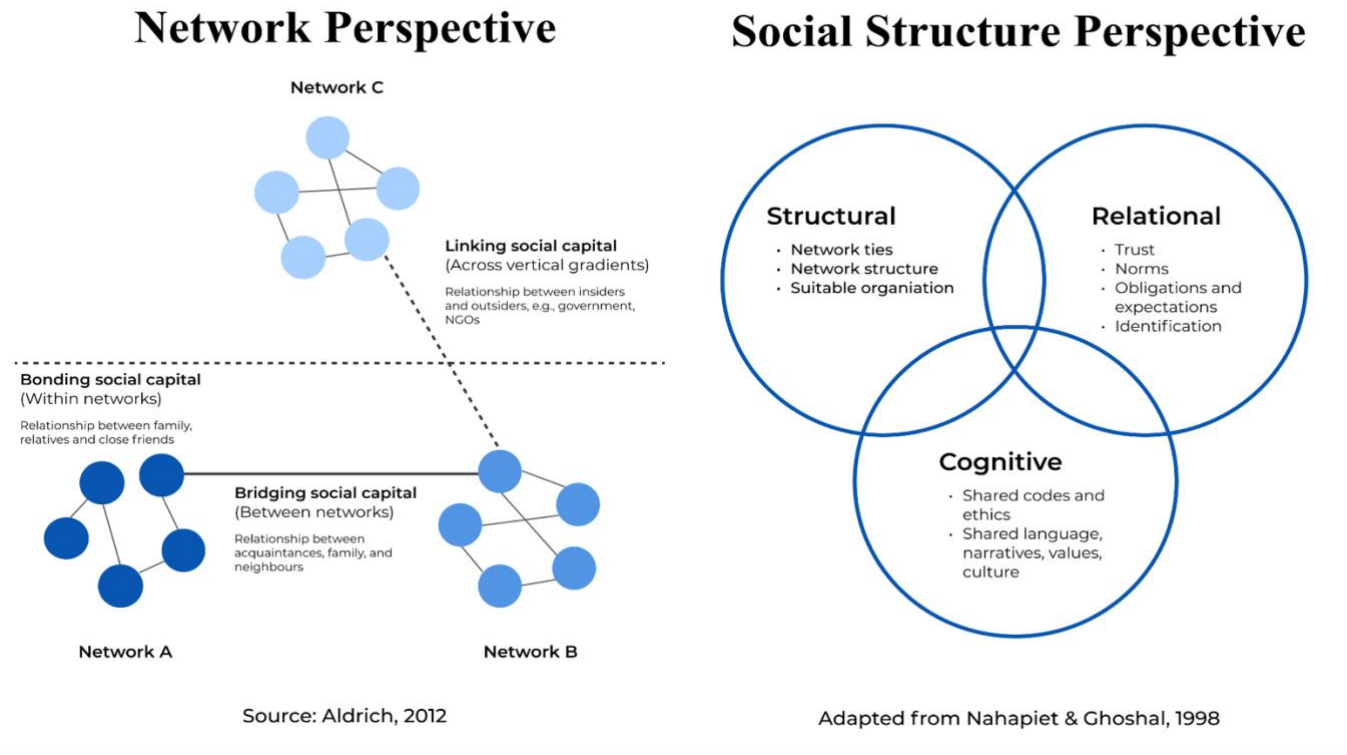


Figure 1. *Network and Social Structure Perspective on Social Capital*

Putnam aligns with the first group and defines social capital as the "trust, norms, and networks that can improve the efficiency of society by facilitating coordinated actions" (Putnam, 1993). His characterization encompasses three key elements of social capital: horizontal interpersonal communication networks, and reciprocal norms, that collectively cultivate social trust (Putnam, 1993). Putnam further describes it as "a propensity of people in a society to cooperate to produce socially efficient outcomes" (La Porta et al., 1997) emphasizing "the norms of reciprocity and trustworthiness" that arise from interpersonal connections among individuals. Nahapiet and Ghoshal (1998) builds on Putnam's definition and states that social capital is a tri-dimensional concept, comprising structural social capital, relational social capital and cognitive social capital. Distinction can also be drawn between internal and external social capital. Internal social capital refers to the actual and potential resources "embedded within, available through, and derived from the internal network of relationships

within the firm" (Nahapiet and Ghoshal, 1998). In contrast, external social capital denotes connections to other organizations. Scholars have primarily researched either internal (Kalra, Agnihotri, & Briggs, 2021; Madhavaram & Hunt, 2017; Stolze, Murfield, & Esper, 2015; Tsai & Ghoshal, 1998) or external social capital (Inkpen & Tsang, 2005; Koka & Prescott, 2002). Thus, the research addressing the role and influence of both internal and external social capital on organizational outcomes is limited (Sanchez-Famoso et al., 2020; Zhou et al., 2021). Chowdhury et al., (2020), is an exception as they examine the role of external and internal social capital particularly in the context of SMEs, however, not in relation to a disruption. This is the perspective we will embrace in our study.

Network Perspective on Social Capital

Bourdieu (1985) defined social capital as one of four types of capital, with the other being economic, symbolic, and cultural capital, that collectively shape the path of social life. According to him, social capital is the aggregate of actual or potential resources that are linked to possession of a durable network that has more or less institutionalized relationships of mutual acquaintance or recognition (Bourdieu, 1985). The volume of social capital an actor holds is primarily determined by the possession of other types of capital (Bourdieu, 1997); leading to unequal distribution and hierarchies. Lin (1999a, 1999b) has drawn on Bourdieu's definition and focuses on the effect of social capital for the outcomes of the individual, defining social capital as "resources embedded in social networks accessed and used by actors for action"; resources that can be accessed or deployed through network ties (Lin, 2001). Some scholars divide social capital into three main types: bonding, bridging, and linking (Kyne & Aldrich, 2020; Kawachi, Kim, Coutts, & Subramanian, 2004; Szreter & Woolcock, 2004). Bonding social capital refers to relationships between individuals who share emotional closeness and high levels of similarities in demographic characteristics (McPherson, Smith-Lovin, & Cook, 2001; Mouw, 2006), such as family, friends, or colleagues, which can provide valuable support and assistance (Aldrich & Meyer, 2015), especially during challenging times and disasters (Hurlbert et al., 2000). Bridging social capital facilitates the connection to external resources and the spread of information (Putnam, 2000), bridging individuals from different cultural, racial, or ethnic backgrounds, uniting different communities (Aldrich, 2011). Bridging social capital often comes from involvement in civic organizations, sports clubs, religious groups, and political institutions (Small, 2010). New resources and information are easier to access through interaction with actors outside your close network. Bridging ties have been shown to provide more employment opportunities, compared to bonding ties (Granovetter, 1983). Linking social capital establishes connections between individuals with actors in

positions of authority and power outside of the focal network (Aldrich, 2011). Bonding, bridging and linking social capital are important factors in the situation of a crisis (Falk, 2015). Most studies consider social capital to have positive effects as it has the potential to increase resilience or decrease vulnerability (Morsut, et. al. 2021).

2.3. Social Capital and Crises Resilience

Over decades, resilience has been studied under various conceptual frameworks and till this day many definitions have been presented by scholars. One of the early definitions of resilience was introduced by Holling (1973) as "the persistence of relationships within a system; a measure of the ability of systems to absorb changes of state variables, driving variables, and parameters, and still persist". Another widely accepted with on resilience is as an "ability of a system that has undergone stress to recover and return to its original state" (Klein, Nicholls & Thomalla, 2003). Resilience is widely seen as the capability to bounce back to the initial state prior to the crisis (Smith et al., 2010; Tusaie & Dyer, 2004). The notion of "returning to the baseline" is inherent in the concept of resilience, suggesting that it does not necessarily entail growth or transformation in response to adversity. Moreover, resilience encompasses both the mental and physical domains, reflecting the ability of individuals, social units or systems to absorb shocks and, through a process of adaptation and recovery, restore their initial functional states. Ahmed et al., (2004) see resilience as the creation of physical, social, political, cultural, and psychological resources that support community safety and mitigate adversity. Across existing definitions, there is agreement on two key aspects: firstly, resilience is more effectively conceptualized as an ability or process rather than as an outcome (Brown and Kulig 1996/97; Pfefferbaum et al. 2005); and secondly, resilience is better understood as adaptability rather than stability (Handmer & Dovers 1996; Waller 2001).

Research on crises and disasters has examined resilience and vulnerability alongside social capital linking them to how communities and organizations handle crisis situations. Resilience and vulnerability could be seen as two antonyms as vulnerability signifies susceptibility to harm and has gained prominence in research, as it reveals the social dimensions of a crisis (Morsut et al., 2021). In times of crisis factors such as experience of the management of organizations, mindset and access to resources can be determinant if business would lean towards resilience or vulnerability. On the contrary, Waller (2001) sees resilience as "positive adaptation in response to adversity" and "not the

absence of vulnerability". Conceptual model linking resilience, vulnerability, social capital, and risk awareness in the context of crisis points that social capital in the pre-crisis stage can strengthen the resilience and facilitate operations in acute crisis and post-crisis stages (Morsut et al., 2021). However, social capital may decrease in times of crisis, leading to increased vulnerability. For example, if bonding social capital (connections with friends and family) is high in a pre-crisis stage and it decreases during the acute crisis stage, it might result in weak social capital that does not support recovery (Morsut et al., 2021).

Social capital can serve as a strategic tool to promote community resilience in response to crisis or disaster events (Norris et al., 2008; Wickes et al., 2015) as actors with stronger social capital have shown higher resilience levels (Tierney, 2014). Networks and bonds of individuals can facilitate recovery from crisis through mutual aid, enhanced motivation to overcome the struggle and regain lost resources. Moreover, social capital networks provide access to information, financial aid, as well as mental and emotional support during the crisis situation (Aldrich, 2010). More recent study by Ozanne at al., (2022) suggests that resources provided by social capital are deployed by dynamic capabilities and result in organizational resilience. In the setting of natural disasters, such as hurricane Katrina, researchers found that small businesses with better social capital and connection to their community had experienced faster recovery and sustained operation post-disaster (Torres, Marshall & Sydnor, 2019). In the comparative study of disaster-affected communities across different countries, Aldrich (2010) identifies social ties as "informal insurance" providing crucial support such as information, resources, and emotional support in the disaster. Factors such as community and family conditions may influence resilience of organizations (Haynes et al., 2011; Stafford et al., 2010). Recovery process for particularly small businesses has been shown to be linked to various factors, such as industry size, but also human capital and accumulated industry experience as those can increase managerial skills crucial for survival (Haynes et al., 2011). An interesting case of social capital and resilience has been presented by the recent COVID-19 pandemic, which was quite shocking even for the system that tested organizations on their ability to put together critical resources (Cortez & Johnston, 2020). Such sudden crisis in turn pushed business to go beyond their internal social capital and seek external support in establishing connections between organizations (Ozanne at al., 2022)

Although some researchers have started to incorporate social capital into their studies, there is still much to explore regarding how social capital aids in disaster resilience, despite existing indications of

positive contribution of social capital (Aldrich & Meyer, 2014). Specifically, research is lacking on the contribution of social networks to resilience in such long-term distress situations as war or other types of violent conflict.

2.4. SMEs and Social Capital in Disaster settings

Social capital has for decades been widely recognized as a critical resource for firms (Inkpen & Tsang, 2005; Nahapiet & Ghoshal, 1998; Tsai & Ghoshal, 1998). It is considered a key resource that can enable SMEs to access resources embedded in internal and external relationships, making them better equipped to mitigate, respond and recover to crises and disasters (Ozanne et al 2022). Social networks provide access to resources, information, markets, knowledge and technologies and are especially useful for SMEs (Inkpen & Tsang, 2005) and firms in crisis situations (Johnson, Elliott, & Drake, 2013; Williams et al., 2017). When facing a crisis, social capital enables organizations to utilize network ties, configurations and stability (structural SC), align goals and share culture (cognitive SC), as well as building trust (relational SC) as a response to the disruptions (Chowdhury et al., 2019; Inkpen & Tsang, 2005). A lot of research highlights the internal social capital as a resource to strengthen external relationships. It is common for SMEs to have strong intra-organizational relationships (Sullivan-Taylor & Branicki, 2011) which consists of social ties (structural) that can be replicated externally to build relationships with suppliers (Chowdhury et al., 2020; Wang, 2016) and customers. The internal communications and relationships are crucial to meeting customer expectations (Campbell, 2003) and to collaborate and for effective customization to take place, firms must utilize social resources embedded in internal relations, e.g. trust and reciprocity (Campbell, 2003; Koronis & Ponis, 2018; Madhavaram & Hunt, 2017). SMEs can, according to Morrish & Jones (2020) replicate the internal ties and re-orient them externally to better meet the demands of new customers and retain existing ones during disasters. To achieve effective information exchange internally, employees with different knowledge and skills must come together creating relational social capital (Madhavaram & Hunt, 2017) which can be used in times of crisis to better serve customers (Morrish & Jones, 2020). Internal cognitive social capital enables for shared vision and aligned values among the employees, enabling a market orientation that can support customer relationships (Déniz-Déniz, Cabrera-Suárez & Martín-Santana, 2020), strengthening the relationship between external and internal social capital (Chowdhury et al., 2020). A high level of internal social capital provides SMEs with the ability to better handle task and relationship conflict (De Clercq, Thongpapanl, & Dimov, 2009), facilitate cross-functional

collaboration (De Clercq, Thongpapanl, & Dimov, 2011), and enhance knowledge sharing (De Clercq, Dimov, & Thongpapanl, 2013). Consequently, Ozanne, et. al. (2022) states that SMEs should maintain these types of resources and capabilities internally, to better promote positive customer relationships and c

2.5. Theoretical Framework

Based on the literature, the concept of social capital as presented by Nahapiet & Ghoshal (1998) will be applied as the theoretical lens through which we analyze our empiric data, as it is useful to facilitate understanding on how networks and relationships can enable resilience and survival in face of war (Aldrich, 2012; Chowdhury et al., 2019).

As mentioned, Nahapiet & Ghoshal (1998) builds on Putnam's definition and states that social capital is a tri-dimensional concept, comprising structural social capital, relational social capital, and cognitive social capital. As seen in Figure 1, these three dimensions have overlapping qualities.

Structural social capital represents the type and arrangement of social ties among actors in a network (Nahapiet & Ghoshal, 1998; Preston et al., 2016), resting on the presence of connections and their configuration within a social structure (Villena, Revilla, & Choi, 2011). These connections, or social ties, within the network establish opportunities for individuals to gain access to valuable tangible and intangible resources (Coleman, 1990). Cognitive social capital refers to the extent to which actors in a social network share similar narratives, perspectives, visions, ambitions, and cultural values (Nahapiet & Ghoshal, 1998; Preston et al., 2016). Essentially, it is based on language-based resources that facilitate "shared representations, interpretations, and systems of meaning between actors in the social network" (Nahapiet & Ghoshal, 1998). Shared interpretations and narratives foster a mutual understanding, aiding groups in making sense of information, establishing common objectives, and work collectively (Preston et al., 2016) to increase efficiency on cooperative tasks (Li et al., 2016) and enable a smooth transmission of knowledge and intellectual capital. Additionally, cognitive social capital provides relationship value by giving access to innovativeness, competencies, flexibility, and adaptability (Westerlund & Svahn, 2008). Lastly, relational social capital refers to reciprocal norms, mutual trust, and sense of identification among actors within a social system (Nahapiet & Ghoshal, 1998; Preston et al., 2016). Essentially, it captures the quality of the relationships between the actors

in a social network that are developed through a history of interactions (Granovetter, 1974; Håkansson & Johanson, 1992). High levels of relational social capital promote "open communication, behavior transparency, mutual support and sharing of sensitive and important resources between partners," which can support SMEs in creative problem-solving post-crisis (Li, Zhang, & Zheng, 2016). The key components of the relational dimensions identified by Nahapiet and Ghoshal (1998) are norms and sanctions (Coleman, 1990; Putnam, 2000), obligations and expectations (Burt, 1992), trust and trustworthiness (Putnam, 1993), and identity and identification.

Social capital can be either internal or external. External social capital denotes connections to other organizations, acknowledging that employees interact with external partners, e.g., suppliers, customers, and other stakeholders. Its primary function is that of bridging or linking the firm to the external environment (Barroso-Castro, Villegas-Periñan, & Casillas-Bueno, 2015). Consequently, external social capital offers access to current and valuable information from outside the focal organization (Kim & Cannella, 2008). In contrast, internal social capital is the actual and potential resources "embedded within, available through, and derived from the internal network of relationships within the firm" (Nahapiet & Ghoshal, 1998). It has been presented as the web of cooperative relationships between employees within a firm (Brehm & Rahn, 1997), which can facilitate teamwork, collaboration, and intra-organizational trust (Kim & Cannella, 2008), which can be beneficial for SMEs facing to disruptions (Hwang & Lichtenthal, 2000).

2.5.1. Critique and Limitations

As any other theory, social capital receives criticism and has limitations. First of all, social capital theory is not unified and falls under many interpretations from various scholars. For example, Portes (1998) criticizes that inconsistent and broad use of the term "social capital" pointing out that such ambiguity reduces the term's usefulness in the social sciences. He argues that the concept represents processes that are not novel but have been explored earlier under another label calling them "social capital" just makes up for an "appealing" concept. Haynes, (2009) suggests that social capital is a rather an umbrella term, as it can be rational, pre-rational, or even non-rational (Woolcock 1998), objective or subjective (Bourdieu 1986; McShane et al. 2016), and some its elements are cognitive, and others are pre-cognitive (Bourdieu 1986). With many existing definitions, social capital is also challenging to measure, due to its dependability on the context (Haynes, 2009). Scrivens and Smith (2013) provide an overview

of the various metrics and indices, highlighting a lack of consensus on the most effective measurement approach.

Furthermore, social capital presents challenges for consistent operationalization of its elements across different contexts, leading to results that can be non-comparable. While many scholars attempted to operationalize social capital, but attempts have been inconsistent (Haynes, 2009). Kawachi, Kennedy, and Glass (1999) argue that depending on the context or cultural environment, social capital does not always lead to positive health and social outcome. Cultural differences may affect the creation of social capital, which presents another limitation for comparability of case studies (Fukuyama, 2001).

3. Methodology

After detailing the research study's objectives, its relevance, and prior research, this chapter will elaborate on the utilization of empirical methods for addressing the research question. The methodological choices with regards to the methodological fit, research approach, research design, and data collection are explained and assessed in the following section, as well as a discussion on ethical consideration and method quality.

3.1. Research Design and Philosophy

Ensuring that all components within a research project align cohesively is crucial for maintaining quality in management field research (Edmondson & McManus, 2007). Therefore, it is essential to ensure that the research design fits well with both the research question and the existing literature. Otherwise, there's a risk that the research question won't be adequately addressed, or the study won't make a meaningful contribution (Edmondson & McManus, 2007; Saunders, Lewis, & Thornhill, 2012).

3.1.1 An Abductive and Qualitative Approach

The approach to theory development in this study has been abductive reasoning. As the resilience of IT and software SMEs when exposed to an invasion is relatively under researched, the purpose of our study is to be considered exploratory as it aims to generate insight and explain this particular phenomenon. To find conditions to make it less puzzling we therefore alternated between different theoretical frameworks and the collected empirical material (Mantere and Ketokivi 2013). This pragmatic fluctuation, 'dialectical shuttling', between the social world and literature, led to a set of premises deemed sufficient to account for this specific phenomenon (Atkinson et al. 2003; Schwartz-Shea and Yanow 2012), enabling us to select the 'best' explanation from competing explanations or interpretations of the data (Mantere and Ketokivi 2013). Using a purely deductive approach would have limited our ability to adjust our research along the way and with the high risk of data not fitting our hypothesis. A purely inductive method would have required us to form a theory, which potentially would have limited the generalizability as certain aspects might have been overlooked and been

missing from the collected data. The abductive approach is therefore suitable since exploratory research must be adaptable to change and becomes increasingly focused as the research progresses (Bell et al. 2019).

Further, a qualitative approach was deemed most appropriate as it highlights the perspective of those being studied and what they find most important and significant. It allows for closer involvement with the interviewees in a natural setting, so that a genuine understanding of the world from their perspective and context can be obtained. The flexibility of the method allows for a less structured data gathering where new areas and their interconnections can be explored as they surfaced. This enables the collection of rich and contextual data from which generalizations can be drawn (Bell et al. 2019).

3.1.2 A Social Constructivist and Interpretive Study

This thesis takes a subjectivist position as we believe CEOs and COOs interpret the nature of their social and natural world based on their subjective opinions, contexts, and narratives, partially influenced by the experiences of living in a country at war. Their perspectives are thus to be seen as social products rather than factual statements presenting an objective reality. Further, we understand that our own values and beliefs are incorporated and affect our research and do actively evaluate and reflect upon this. As the IT industry in Ukraine is rather new and constantly expanding and developing, the organizations studied are not to be seen as objects but understood as ongoing processes where social phenomena constantly are revisioned. Social reality is thus seen as intersubjectively constructed, not external, or decided by universalism. Ontologically, we acknowledge the existence of partially shared meanings and realities, created through the interaction of social actors. An objectivist position would not be suitable as it is too static and doesn't account for interpretations to the same extent. Consequently, social constructionism is the subjectivist tradition we embrace (Bell et al. 2019). The epistemology adopted is interpretivism as we build on the assumptions that reality is constituted by human action and meaning making, rather than existing objectively and externally. The actions and perspectives of people thus need to be interpreted to gain access to knowledge. As we seek to understand 'how' SMEs adapted to the conditions following Russia's invasion, rather than drive change, we work within the regulation perspective (Kelemen & Rumens 2008; Burrell and Morgan 1979). This is suitable as our method is qualitative where we want to gain rich empirical data. Consequently, we are working within the interpretive paradigm (Bell et al. 2019).

3.1.3 Research Design

This study explores a particular phenomenon through multiple cases under a limited time frame. All 20 interviews were held with CEOs and COOs during February and May 2024. This lets us determine the relationships between the different variables which is needed to detect patterns of association and answer the research question (Bell et al. 2019). To gain better insights on how the companies studied, adopted and changed over time a study with a longitudinal design could have been more appropriate, as it allows for insights into the time order of variables and therefore may be more able to allow causal inferences to be made. However, due to the scope and time constraints of this study, and our constructivist approach, this was not appropriate (Bell et al. 2019).

3.2 Data Collection

3.2.1. Interview Sample

This study is built on interviews done with 18 individuals working for 18 different SMEs operating in the IT sector in Ukraine. The target population was individuals in executive positions where strategic decisions were made; CEOs and COOs were crucial as they ultimately are responsible and decide on critical company actions in a crisis, making their perspectives crucial for answering our research question. This purposive sampling technique generated a non-probability sample, which is appropriate considering the subjectivist research approach and limited accessibility (Bell et al. 2019).

Over 200 executive representatives for IT SMEs were connected via email or LinkedIn. All interviewees represented companies that were considered SMEs according to the European Union definition by the time of the invasion (Less than 250 employees, and a turnover lower or equal to 50 million euros, or a balance sheet smaller than 43 million euros in 2021 (European Commission, 2024)). 23 individuals responded to our invitation and of those 18 fell under our criterion and agreed to an interview. The accepting companies varied in terms of the number of employees, revenue, age, and primary customer groups, which is deemed to result in good coverage of the Ukrainian IT industry that allows for generalization. A list of interview participants can be found in Table 1. Companies were divided into three categories: outsourcing companies, product companies, mix, based on their

operational focus. To protect the identity of the companies, we intentionally do not specify a specific number of employees or revenue streams used for the assessment.

Table 1. *Overview of Interviews.*

Interview	Code	Role	~ Nr of Employees	Turnover	Duration	Date
Interview 1	A	CEO	~ 40	< €50M	49 min	7.02.24
Interview 2	B	CEO	~ 40	< €50M	39 min	7.02.25
Interview 3	C	Managing Partner	~ 100	< €50M	56 min	9.02.24
Interview 4	D	CEO	~ 120	~ €16.6M	32 min	12.02.24
Interview 5	E	COO	~ 30	< €50M	55 min	14.02.24
Interview 6	F	CEO	~ 80	< €50M	1 h 1 min	14.02.24
Interview 7	G	COO	~ 35	< €50M	57 min	16.02.24
Interview 8	H	CEO	~ 300 (250 in 2022)	< €50M	40 min	19.02.24
Interview 9	I	CEO	~ 40	< €50M	39 min	21.02.24
Interview 10	J	CEO	~ 100	< €50M	54 min	23.02.24
Interview 11	K	Operational Director	~ 150	< €50M	50 min	28.02.24
Interview 12	L	COO	~ 50	< €50M	36 min	29.02.24
Interview 13	M	COO	~ 250	~ €50M	56 min	26.03.24
Interview 14	N	CEO	~ 250	~ €50M	47 min	9.04.24
Interview 15	O	CEO	~ 250	< €50M	42 min	15.04.24
Interview 16	P	CBDO	~ 50	< €50M	55 min	16.04.24
Interview 17	Q	Managing Partner	~ 100	< €50M	44 min	26.04.24

Interview 18	R	CEO	~ 60	< €50M	32 min	28.04.24
Interview 19	S	COO	~ 30	< €50M	38 min	30.04.24
Interview 20	T	CEO	~ 120	< €50M	53 min	02.05.24

3.2.1. Interview Process

Data collection was done through a mono method where semi-constructed interviews via online meetings were used (Appendix 1). One initial pre-study was conducted based on three interviews (A, B and C). The questions asked then were very broad, aiming to gain an initial understanding of the situation. After that we turned to the literature to refine the interview guide with open, concise, and unambiguous questions, and several probable follow-up questions. This process was iterated again after the 14th interview to find more focused and theory relevant questions. This 'non-standardized' method enabled us to partly compare the interviewees' responses, but also to remain open-minded to the subject, ask follow-up questions to gain deeper insights, and give the interviewees opportunities to express and elaborate their unique perspectives on complex themes. This would not have been possible using a purely structured or unstructured interview method. We listened carefully and attentively to the interviewees, making eye contact, nodding, and avoiding interrupting when the interviewees talked, to manifest active listening. This allowed us to ask for clarifications and confirmations when things were unclear and explore points of interest (Bell et al., 2019).

3.3 Analysis

With the consent of the interviewees, the interviews were recorded and transcribed. The analytical technique applied to comprehend the large qualitative data set is thematic analysis, with focus on themes, and data fragmentation and reduction. The flexibility and straightforwardness of this technique allowed us to invest our energy into a rigorous analysis rather than focusing on applying a more advanced technique correctly (Braun & Clarke, 2006). To find and categorize similarities, differences, contradictions, inconsistencies and recurring concepts in the data manual coding was done through the software Atlas.ti. In total 95 first order codes were organized into analytic themes as relationships, patterns, and trends appeared. The themes were later organized under an overarching theme (Appendix 2). Codes and themes were refined, added, and modified concurrently to catch the

essence and relate our findings to the theoretical concepts, the literature and the research question (Bell et al. 2019).

3.4 Method Discussion

3.4.1 Method Quality and Criticism

Lincoln and Guba (1985) propose trustworthiness as a criterion of evaluation in qualitative studies. They describe four aspects of trustworthiness, *credibility, transferability, dependability* and *confirmability*. The abductive nature of this study has resulted in many changes as the research progressed. To increase the *dependability,* we documented and saved research material and notes (in accordance to GDPR) in a SSE approved shared online folder. Additionally, we regularly shared findings and progress with our supervisor which further increased the dependability of our study. The *credibility* of the study is strengthened through respondent validation, where our interpretation and understanding of quotes were confirmed by the interviewees, and triangulation, where descriptions have been validated through other sources. This increases our ability to capture the social world studied. Furthermore, the self-selecting nature of the sample likely resulted in a skewed representation of individuals with a tendency towards companies with a global outlook, a successful experience and high trust. This creates both survival bias and success bias, which provides a better representation for companies that effectively managed to survive the initial stages of the war. The interpretivist nature of the study limits how well finding holds in other contexts, thus limiting the *transferability* as the responses of the interviewees are deemed to be unique for their context and time. However, a thick description has been created with rich accounts of the social reality of the interviews, as proposed by Geertz (1973). This provided a database for making judgements about the possible transferability of findings to other milieus. While we recognize that complete objectivity is impossible, we have acted in good faith aiming to conduct research and derive findings without allowing personal values and theoretical inclinations to affect the outcome or conclusion, strengthening the *confirmability* of the study.

3.4.2 Ethical Consideration and Privacy

Respect for others and the principle of non-maleficence were central in our work. Our evaluation of the risks interviewees were exposed to showed that the participants weren't exposed to harm or

conditions that risked their physical or mental well-being. To ensure informed consent from the interviewees, our invitation contained information about the aim of our research, the requirements of the interviewee, and the implications of participation, which enabled the interviewees to make a fully informed decision regarding their participation. Interviewees also asked questions which we answered truthfully to further ensure informed consent. In the beginning of each interview our aims and the purpose of the study was repeated, after which the interviewee once again were asked if he or she wanted to participate. The interviewees were encouraged to give an opportunity to comment or ask questions regarding our study throughout the process and they were also ensured that they could end the interview at any point of time with no consequences.

The privacy and integrity of the interviewees and the confidentiality of data were crucial. Before every interview, the interviewees were asked whether the interview could be recorded. We clearly stated that the reason why we record was to better be able to remember what was said and that the recordings were to be transcribed using automatized transcription in Microsoft Teams, for the purpose of our research, and in accordance with the general principles in the GDPR. We ensured that participation is fully confidential. We did not process any personal data related to children, or sensitive personal data, e.g. ethnicity, sexual orientation, or religious beliefs. All data will be permanently deleted after the submission of the final draft and no personal data will be published.

4. Empirics

This section presents our empirical findings following the structure of the themes in our empirics; (4.1) presents the immediate shocks companies experienced after the invasion, including distress and trauma response, (4.2) presents the actions taken to address the challenges that companies faced, as well as how the companies adjusted to the new reality. These sections are divided in accordance with each theme's overarching themes.

4.1. Initial Shock: Mental Distress and Operational Disruption

War had a detrimental effect on the mental state of the whole population of Ukraine, including business owners, managers, and employees. Sudden change of environment and a need to balance business operations with "survival" was challenging for everyone.

4.1.1. Distress and Trauma Response

All participants experienced personal shock that lasted the first days or weeks after the invasion. War brought a lot of emotional and psychological distress for the interviewees and their organizations: "(...) *everybody was in shock, some people didn't know what to do, where to go"* (C, 2024). Human lives were endangered and there were casualties: *"(...) an employee's son was killed at war and it is still hard for her, (...) another employee's close friends are fighting at the frontline and it is also hard for him now."* (G, 2024). It was very challenging for the interviewees to learn how to live in a new reality, which in turn set a footprint on the organizations. Feeling of existential fear was predominant for both respondents and their employees.

> G: "But emotionally and psychologically, the first six months were difficult. We had to figure out what to do next, not only as a company, but also as individuals."

> A: "The main thing we cared about at that point was survival. But you know in a (...) wider sense. Survive not as a company, not as a human, but survive as this entity, as Ukraine."

This illustrates how the invasion galvanized a sense of collective responsibility and unity among the respondents. Some interviewees said that the constant distress had a negative impact on the employees productivity and focus at the workplace. Due to distraction by an overwhelming flow of news and anxiety over the course of development of military actions, productivity declined in some organizations.

> E: "They [employees] are stressed all the time. They're reading the news all the time, every single hour or every 15 minutes. (...) So I would say that the quality is worse and the speed of development is lower."

However, as D (2024) notes, responses among employees have varied widely; some individuals turned to excessive alcohol consumption, others increased their smoking, and still others immersed themselves fully in work. The majority of the workforce turned to excessive work as a form of escapism: "*70% of the team became stronger, more energetic. We were only working the whole time. So we became more efficient*" (D, 2024). Work served for some as a distraction from the external chaos and a way to keep or restore control over familiar routines, but also as an opportunity to contribute to the county's fight for freedom. Another study participant highlighted that "*people were more focused, more (...) angry. They were (...) willing to support Ukraine*", (F, 2024), providing an insight into emotions experienced by the employees in response to invasion.

> C: "In reality, teams started to work even more. Because people don't go out, they don't go shopping, people sit at home or somewhere else in a safe place. Work allows them to focus and not to think about this awful situation around us. (...) I offer to my team to not work because I understand the situation. People have kids and they worry and stress a lot. So I said, 'If you cannot work, it's okay. We will pay for that. It's nothing that will be cut from the salary.' But they reject this offer because they need to do something to not to think about that [the war]."

Employees were seeking stability, direction and reassurance from the leadership team, putting management under immense pressure. The inability to provide concrete answers due to uncertain conditions highlights the profound sense of accountability experienced by leadership and the psychological burden of overseeing a staff in such challenging circumstances.

> I: "Us owners, every day we received messages from our team with questions "What now? What will be tomorrow? What will be next? What's the project? (...) What's the news for that customer?" and you don't know what to answer. It's very hard to hear (...). You are responsible for these people, but you can't give them anything. So you just tell them 'Let's see what will be tomorrow'."

Being a leader under the pressure and uncertainty was "*a mental challenge*" according to participant J. Particularly, the struggle was in leading the team through hard times and providing guidance to them as to how to move on as organization and individuals.

4.1.2. Disruption of Operations and Working Conditions

In addition to causing severe emotional distress, the onset of war disrupted daily operations and posed significant challenges to adapting to new conditions, e.g. through customer relationships, ensuring employee safety, and preserving the critical infrastructure necessary for operational continuity. Organizations experienced initial disruption for varying periods of time. Some mentioned that the first 2-3 days were most challenging, whereas others faced significant disruptions for up to a year. A lot of respondents have struggled to remember what exactly was happening in the first period, because *"all the things were shaken up fully, there was no separation of work, sleep, (...) no schedule at all"* (A, 2024). Blurred line between work and life was a result of significant disruption of all daily activities. Familiar frameworks and routines no longer applied to the new reality.

> J: "The biggest challenge was to start to understand that it's a new reality and to start to work in this reality. We heard a lot about 'everything will be over in two, three weeks'. And we spent our first year believing in this 'two-three weeks' period. [...] Our staff couldn't come back to their houses and they needed to adapt to a new country, new town, new house, new workplaces, etc."

Employees that were forced to relocate often had to pause working for, at that time, an uncertain period, which in turn disrupted ongoing work.

> C: "People didn't work for around one month at all, because everybody tried to find a place where they would wait because everybody was thinking that war will be a couple of weeks and that's it."

Disrupted operations and challenges presented by war for some organizations posed existential threat. Changed market conditions required immediate response and organizational flexibility, which was easier for some and harder for others.

> I: "I think that the main challenge was to understand if we are ready to continue all this business or not (...) I think during March we were two times very close to the situations that we were ready to say 'that's all guys'."

Employees Leaving

In search of clarity in the future, employees left a workplace that could not provide clear enough direction or answers of what's to come. Some individuals found alignment with the company's evolving path and chose to stay, while others decided to leave, seeking alignment with their personal circumstances or safety concerns.

> J: "Some understood us during this period, but some people left us. It's a normal process for business transformation. Somebody will stay with you, somebody will leave you."

During the winter of 2022, Russia targeted crucial infrastructure, posing significant challenges for the operations of many companies. Power outages, no electricity and access to Internet cuts created not only personal challenges, but sometimes inability to communicate with external stakeholders. The bombings also affected one of the interviewees that had a hardware factory in the east of Ukraine.

4.2. Adaptation and Response

4.2.1. Securing Employee Safety and Productivity

The top priority of most interviewees was stated to be the security of their family, friends and employees, and a lot of effort was thus put in place to ensure employee safety and maintain operations as regular.

> J: "When you know that your people, your staff and their families, live in these cities and in these houses, the first thing you want to do is to save these people and to bring them to a safer place."

> K: "We understood that, OK people first and we paid a lot of money to save them and save their work."

The CEO of the company that decided to relocate prior to the war explains his decision like this:

> D: "One question that I asked myself, how I would look into the eyes of my guys if something were to happen, and we had all the opportunity to move them before. And that was one question that gave me very quick guides on what I need to do."

The relocation was for some companies a time consuming task, especially due to obstacles such as curfews and the severe air strikes. A journey that normally would take a day could during the first weeks of the invasion take up to two weeks. Some employees solved their own relocation and some chose to stay where they were. The HR teams in many companies assisted in finding new accommodation for their employees and their families, and much of the expenses were accounted for by the companies.

> F: "During the first week our HR team was on call 24/7, so they physically helped employees and their families to move to safer places. And they help to organize their [employees] lives there. [...] Well, mostly it was related to renting the apartments if it was inside of Ukraine, but if it's outside of Ukraine, then they also helped with local legislations and settlement. We also had an office in Warsaw which

supported us with movement and recovered most of the costs related to this relocation, so it was never at the expense of our employees."

The extraordinary situation where employees were on the road for several days without internet or hiding in bomb shelters, and the increased risk of death and injuries, demanded increased communication efforts between employees and management.

C: "Every day we were in touch with all the people who were still in Ukraine. I think it was very useful that we communicated every day, like 'How are you? Are you safe? How was your night?'. It was very helpful because people feel that someone cares, that they have someone to speak with."

To tackle psychological and emotional distress, management of all interviewed organizations have implemented various measures at the workplace or provided support for their employees to receive external help.

F: "Mental programmes are something that we've chosen to provide to the people in order to support their well-being. Many people actually use it and (...) we also continue organizing team building events in remote format. So we continue to encourage people to live a normal life. From my perspective it's important. It will be ongoing and maybe it will even become our standard policy. So what we do in terms of a mental programme, we have a policy that allows us to compensate for certain expenses within this programme and it is up to employees how to use them."

To provide additional support to employees, companies have put increased focus on HR function as the way to keep up communication and have regular check-ins with employees. Many companies also established company wide chats where employees could share experiences and relevant information.

T: "What really helped is actually this crisis chat where we added all the people, they were able to share their problems and where we could see that we all share the same problems and share some insights, and generally feel more informed by their colleagues. There was this general fear of missing out and of not feeling informed enough, maybe I missed that or this important information. When everyone shared

> a thing in the chat we could all see that the info we had was good enough, there was nothing more to refresh. We created this psychological group support, we were able to share our hatred and your problems and solutions."

Recruitment, Trust and Reciprocity

To stay together as a team, having trust and maintaining it during the crisis was crucial for business survival, according to our interviewees. In many firms, employees and management had a long history of working together. Trust allowed for teammates to rely on one another in hard situations, but also rely on management to make the right decision and provide necessary support.

> K: "We have trust in our team. I mean this is the main reason [for growth]. In a core team we trust each other. Our slogan is "Get things done" and we believe that another teammate, he or she, will get things done today and we are a strong team. [...] We worked together for around 15 years so we know each other pretty well."

> P: "They [the employees] were several people who grew together with us and worked together. We have close relations, trust between each other, and they believe in us, but people stay people so I really appreciate their trust in us. In war you can easily think 'I don't know if these guys will be able to pay my salary and provide a job to me, so maybe I should seek other opportunities". So I am really grateful for their trust."

Many interviewees highlighted their recruitment policies as a way to build a team with high quality individuals you can trust, who are "*like-minded in terms of motivation. [...] who work in software not just because it's a high-paid job" (O, 2024).* This is presented as a key to why their companies managed to survive the invasion.

> S: "To be successful in our business you need to have unique very high standard people with good soft skills, high standards and good values, who communicate well and want to learn, that is why we succeed. My partner who hires new people has very tough filters for hiring. I would say we have the very best people in the company, we understand we have very good people with good values, I would not say the war changed this, we work together and achieve our goals."

Some organizations continue paying salaries under almost any circumstances to provide financial and psychological support, but also show that the employees are prioritized by the company.

> O: "We paid two or three months [of salary], I don't remember right now. When we settled on the second or third day, people have financial certainty that even if everything stops, they have money. And I also said that we have money abroad, if everything stopped operating in Ukraine, we will take care of you because we have money abroad. We will find a way to pay for your expenses. So this gave more psychological safety, you know, at least something is stable."

Such efforts were reciprocated by employees where the support from organizations strengthened the sense of community where some employees wanted to give back to their companies, doing more than what was expected of them.

> N: "Some people said: 'I will be working overtime so that we will cover the missing revenue from the people that cannot work so that our operations as a company will not struggle.' There was a huge amount of responsibility and unification of people thinking about the company as well, not only about themselves and their own safety. They were effective while all the craziness was happening."

Overall, many mention that a crisis situation made the team stronger, more united and led to "*more bonding*" (P, 2024). This also had an impact on how people in the organization interacted, with "*more friendly, more helpful, more partnership, more cooperation*" as a result (Q, 2024).

> O: "I think it's like when you go through a crisis and you successfully go through it, it improves the team morale in a great way because you know that the other person took care of you and your family, not just some small thing, but it's like an important thing. [...] I definitely see loyalty to the company, I definitely see more transparency and straightforward communication, people say what they see and what they want. It feels like we can work out any problem so that is one thing that has changed."

However, not every organization could continue paying our salaries in the midst of a crisis, especially as clients were leaving the Ukrainian market. Therefore, some SMEs were forced to cut down their workforce and let employees go. To address this situation, some organizations helped fired employees finding new employers, others adjusted payment policies to be able to keep people as long as possible.

> G: "Over the past 2 years our number has leveled off because our team has shrunk. Before the war, our team was about 75 people, and now it is 2 times smaller. […] One client ran out of money, just disappeared, and we had to fire the team because we were not ready for that moment. We kept them for about a month and a half"

Shift from Long-Term Strategy to Incremental Planning

Due to uncertainty in the development of the war and as a consequence market dynamics, a lot of organizations resorted to incremental planning as an alternative to a long-term strategy. Domestic and global political shifts created a "*position where we cannot plan"* (A, 2024).

> E: "We don't have a strategy anymore. I don't know how to build a strategy nowadays, everything can be changed in hours or in minutes. So we don't have a strategy. Yeah, I have my thoughts, of course, on how to survive or how to gain a new client, but not the strategy. Not anymore."

4.2.2. Client Relations and Communication

Most firms worked predominantly with international clients, primarily from the US and EU. Many companies saw a decline in interest from clients after the invasion, although few lost clients immediately. When the world realized that the war was going to prolong for a considerable time, the interviewees increasingly often heard "*guys, nothing personal, just business" (E, 2024)* as some clients decided to stop working with Ukrainian firms, due to the increased risk associated with the war.

> L: "A lot of customers like to support Ukraine, but there is a difference between supporting Ukraine and doing business with Ukraine. One customer said: 'I donated $100,000 but I can't pay you $4000 per month for the developer because it's too big of a risk."

Companies dramatically increased their client communication as a response to the insecurities clients felt regarding the risk associated with the war. Interviewees state that the communication with clients and other stakeholders got more professional and structured, with daily updates on how risks were mitigated, the status of projects, as well as the general situation in Ukraine. Respondents presented plans on how to ensure business continuity and maintain deliveries.

> C: "Our main goal in the beginning was to show the world that Ukraine is still working. We're able to receive orders, projects, investments, maybe not like it was before, but still."

There was an emphasis on honesty and accurate information to ensure lasting and sustainable client relationships. Open and honest communication was seen as *"the way to save the business"* (F, 2024). Most interviewees had long-term partnerships, close collaborations with their clients, and adequate pricing policies, despite price inflation prior to the war: "*We are trying to work with them forever (...) Nobody left us because everybody knew that our rates are fair*" (A, 24). These close relationships with high levels of trust were stated to have been highly important for business survival as it provided continuous cash flow.

> J: "We stayed with our long-term clients with whom we worked over 5 years and continue working till this day. It's more about relationships and about support."

Some clients tried to reduce the size of projects they did with Ukrainian firms, to limit the associated risk while still remaining business partners.

> C: "Before war we didn't take short term projects because we tried to do long term collaborations. But because of the war we care more about flexibility. Customer can't plan for a long time because they don't know if they will have money in one year and they are honest with us like, "Okay, guys, we're able to sign a contract for one year", but that's the risks and it's my choice, should I do this or no, because it's risk, but it's honest communication."

4.2.3. Network Support and Shared Resources

Most interviewees stated that their companies are part of IT associations or partner networks and some even believe that they "*can survive only by teaming up with someone"* (G, 2024). These are either formal structures communicating with external stakeholders and promoting Ukrainian IT abroad, or informal networks of friends and acquaintances. These networks contributed to the flexibility of the companies as it provided both resources and clients to the members, reduced domestic competition, and increased alignments.

> P: "So they [network partners] have their own customer base, but they can have a lack of resources and we have resources. So we had to get a new job and income in a very short period. If you want to find the customer, the real customer, it's always a long story. […] Typically it's a half of a year or one year from the first meeting with the potential customer to the contract. We didn't have this time. We needed to get our first income in a matter of weeks."

> A: "I have some friends in other companies, CEOs of other companies who I can reach out to when they need another developer to be hired and I don't want to hire that person because for instance I didn't work with that technology and I need a person temporarily."

The general downturn of the market has further strengthened the importance of partnerships as it has proven to be an effective way of finding new clients during the war.

> G: "Over the past two years, we have confirmed our hypothesis that partnerships are not useless and should be developed. Now we are investing even more in developing our network of partners and maintaining relationships with them. [...] And now, since the end of the previous year, we have a strategy with specific goals, what indicators we want to achieve in terms of partnerships, and what we will do to achieve them."

Actively building connections with partners during war was crucial for survival of several organizations, as work with projects and client acquired prior to war unfortunately was undermined.

> P: "So what helped us was my connections with a lot of business partners. So actually every day, every hour, I wrote messages to the community of Microsoft Dynamics partners, they know me, someone knew me better, some just maybe one time we had a chat or something, but nevertheless, I established a lot of connections and proposed our services abroad because in Ukraine we've got several customers, but just all projects were halted because of obvious reasons. And pretty much quickly, I received replies from partners from Poland, from the Netherlands, from Canada and what else, and from Baltic countries."

The war also has induced the realization that it is relevant to stay informed of one's surroundings and being *"attentive to some signals"* (L, 2024) about vulnerabilities connected to geopolitical risks. This has affected the strategic objectives and the operational reality of the companies.

> C: "Before I didn't watch the news frequently. Now I am watching the news every day because I understand that everything can affect me."

4.2.4. New Narratives and Unity

The interviewees mentioned low trust in the government which is stated as a contributing factor to why companies were reluctant to look for government support.

> E: "We don't trust the government, so we were not even seeking the chance of how we can obtain anything from the government. From our childhood we knew that we can count on ourselves and our family and that's it. Not the government. And that's the huge difference between the Western European institutions and the Ukrainian institutions. The rules of the game here are the following: you trust the state institutions the least."

As the result of low trust in the government, interviews express how they felt an increased sense of responsibility for the victory at the battlefield and for the situation in the country.

> N: "Our government is not the most effective government in the world and while the army was fighting as much as they could, we started getting information from

> different people that the military needs support here and there. They didn't have weapons, they didn't have equipment, they didn't have radios and so on. And then we felt responsible to support that. We spiked up a few hundred thousand dollars from the company and some employees donated as well and then we started doing things. And then as those things were helping, we understood that it's important to proceed with it."

This, and personal convictions, led to different forms of civic engagement where all interviewed SMEs made donations or volunteered to help e.g. veterans, refugees, and widows. This became a standard practice, which some even consider as a norm or a "*hygiene factor*" (O, 2024) for any Ukrainian enterprise.

> A: "I believe that any company, any business in Ukraine must be a subject of war and that's why there is no real separation of this process of fighting on the front line and fighting here."

Volunteering and donations were not explicitly stated, but in many organizations there were expectations – both on the company and the employees.

> N: "As any Ukrainians who respects themselves, we switched operations to support the country and to support the world. So we started a non-profit. And then we raised, I think, almost $1 million now to support that [...] Based on the donations that people were making and based on their support and the activity, we did hire responsible people."

Associated with these norms there were also sanctions. Several interviewees voiced strong criticism toward individuals perceived as lacking engagement in supporting the country.

> R: "There are still a lot of people who are about you know living the best life but you know if you'll look around you'll understand nobody likes those people"

Others indicated that they faced scrutiny for their decision to leave Ukraine instead of remaining to contribute to the defense efforts.

> D: "We donated around half a million dollars of our reserves. And basically we didn't do almost any PR out of it. And right now I need to explain that we made some contribution and we are not just the guys who left Ukraine. I should have scream a little bit more how much we donated because… yeah"

Shared narrative of "Growing up"

As a consequence of experiencing such a life-threatening crisis and increased sense of responsibility for the survival of not only the organization, but the whole country, many described their experience saying that they "grew up", not only as businesses and individuals.

> N: "Russia did Ukraine a favor by attacking us because they thought they pushed us all to be afraid, but instead they pushed us to grow and become stronger."

Although this experience created unity in Ukraine, it created a division to people outside of the country.

> B: "Right now, looking back I'm thinking 'Omg, who was I, who was anyone?' The conversations were different, the feelings were different, the ideas were different [...] And that's one of the reasons why I and a lot of other Ukrainians cannot communicate well with people who flee. Because they still live in a different world [...] They don't understand that life can be lost in a moment. And they didn't go through this, it's a very painful educational process."

Optimism and Confidence

Many interviewees shared a very optimistic view on the Ukrainian IT industry: "*I love the modal which we built in Ukraine over the last decade. I love it."* (A, 2023). Prior to the war the market dynamics were perceived to be "*like a rocket that was going to the sky!"* (K, 2024) and "*maybe the best in the world"* (H, 2023). This belief persisted after the invasion and many interviewees stated that the war made organizations "*better and more mature*" (D, 2024), and that companies. This has the interviewees speculated about an even brighter future for the industry.

> B: "This process made us as Ukrainian companies much better and it will be really visible in five years, maybe in three years, I don't know, I cannot even estimate here.

But right now it's very obvious that the majority of people and companies have become really different. And this will put us in a way better position than our [international] competitors."

5. Analysis

This section presents an analysis grounded in our empirical data and social capital theory, striving to draw credible conclusions to answer the research question. The firm's internal social capital in relation to employees and external social capital in relation to clients and networks will be analyzed.

5.1. Cognitive Social Capital: The Shared Narrative in the Ukrainian IT Industry

As a fundament for the analysis, the basis of cognitive social capital must be addressed. Elements of cognitive social capital include shared languages and narratives, as well as, according to some scholars, shared goals, visions, and culture (Nahapiet & Ghoshal, 1998; Inkpen & Tsang, 2005; Tsai & Ghoshal, 1998). Evident in our data is the shared narrative of the Ukrainian IT industry being a success story, with an associated sense of pride and optimism among the interviewees. This shared narrative contributes to establishing cognitive social capital, which enables mutual understanding, the establishment of common goals (Preston et al., 2016), and effective cooperation (Li et al., 2016) within the studied community. Although challenged by the war, this narrative lives on – to some extent even stronger – and provides hope for a still brighter future. This is perceived to have resulted in an improved business climate for the companies remaining, and improved business practices in the industry overall. The shared narrative of success within the Ukrainian IT industry fosters cognitive social capital, promoting mutual understanding, common goals, and effective cooperation, despite the challenges of war, ultimately contributing to a more resilient business climate and improved industry practices.

5.2. Internal Social Capital

5.2.1. Internal Social Capital and Employee Relations Prior to the Crisis

Many firms highlight how their recruitment practices select the best people who not only possess the necessary skills but also align closely with the culture, values and long-term ambitions of the company.

This was seen by many as vital for their firm's ability to survive the war. This is sometimes contrasted with stories of the IT industry in general, where people were described to be in it for financial gains solely. Drawing from social capital theory, these recruitment practices serve as a mechanism for cultivating and reinforcing shared values within the organization. While many theories are cautious against defining common values as a determinant of business and economic outcome (Barro and McCleary, 2002; Guiso et al., 2006), we have seen that shared values played a fundamental role in building resilience to war and even improved performance. By selecting candidates who resonate with the ethos of the company, a virtuous cycle is established, wherein the alignment of values between employees and the organization is continuously reinforced. This, in turn, contributed to the development of strong cognitive social capital within the firm already prior to the invasion. Dasgupta & Serageldin (2000) argue that the primary costs associated with investing in cognitive social capital stem from adhering to established values and norms. However, it is clear that the financial costs of identifying the right fit during the employment stage for organizations can be significant, but they appear to be crucial for building social capital and resilience in times of crisis.

When examining the structural social capital within the firms, it is relevant to note that many employees have been with their firms for several years. This has enabled the cultivation of robust relationships within the SMEs. The length of many employees' tenure and the emphasis on cultural alignment lays the foundation for trust-based relationships between employees and employers. According to social capital theory, relational social capital, as identified by Nahapiet and Ghoshal (1998) are trust and trustworthiness, norms and sanctions, obligations and expectations, and identity and identification. Trust is a key component as it is essential for effective collaboration and cooperation within organizations (Nahapiet & Ghoshal, 1998). In environments where employees identify strongly with each other and the company's values and goals, trust naturally flourishes, fostering a sense of mutual respect, commitment, and community (Denison, 1990), which appears to be the case in many of the SMEs in our study. The existence of such high-quality relationships within firms prior to the onset of the invasion contributed to the establishment of a robust foundation of social capital allowing for resilience and adaptability in the face of a crisis.

5.2.2. Internal Social Capital During the War

The trust and loyalty of employees; the relational social capital, were deemed to be crucial for maintaining the relationships, and to secure the continuity of the businesses when the invasion started. However, employees' trust in their organizations was flickering along the way, as both private and professional life was disrupted when the invasion started.

Management was put under a lot of pressure as employees needed direction, stability and guarantees, but definite answers were impossible to provide due to the turbulent environment. However, based on the trust employees had in the companies prior to the invasion, management could provide support in the formation of new functional narratives, and put their companies in a context, despite the disruptions. The common narrative stating that working was an opportunity to contribute to the country's fight for freedom, largely contributed to firms' ability to motivate and leverage employees' will to support their country and need for direction, showcasing how cognitive social capital in crisis can promote individuals' actions in order to achieve the collective interest (Coleman, 1988), which is survival of organization and approaching the victory. The establishment of companywide chats further strengthens and aligns employees' sense of direction, vision, and ambitions, leading to stronger cognitive social capital. People did not only discuss company specific matters, but also how they were doing, how their family was doing, and shared fears and hopes related to the war. Although most interviewees state that nothing really changed, many talk about an increased sense of unity and compassion within the firms, where people trust each other more and support each other. We saw that increased communication with colleagues helped employees to make sense of new reality in the initial stage of invasion, decreasing feelings of uncertainty to an extent. In line with Preston et al. (2016) findings, that cognitive social capital in Ukrainian SMEs prior to war and during the crisis, served as a foundational element for increased relational capital and laid crucial ground for building up resilience in a crisis or even, in some cases, increasing performance.

However, more actions were needed to enable business continuity and maintain functioning employee relationships. The impossibility of long-term planning forced companies to resume to incremental planning, which was enabled through the high level of relational capital existing in the companies. Further, huge efforts were made by the companies to support their employees and their families; investing in relocation, temporary housing, and transportation, and many companies kept on paying

full salaries even though some employees were unable to work. Other employees worked extra to cover for those who couldn't, to ensure business continuity, and to contribute to the economy of Ukraine. This indicates the presence of norms of reciprocity, where actors selectively provide help to other individuals without explicit promise for reward, but with trust of receiving benefits in return (Trivers, 1971). The psychological support programs that many companies invested in further strengthened the relational social capital between employees and employers, as it showed that the companies care about the employees and support them. However, these commitments were not just out of goodwill, but should also be seen as investments to ensure continuous employee productivity and the future of the company, highlighting the connection between social capital and business resilience. Many interviewees highlighted that people were their companies' biggest assets and stated that it therefore made sense to invest in them and show that they are valued and taken care of. Management put an increasing focus on HR and open communication with employees, which is shown to have an impact on effectiveness of crisis handling (Mishra, 1996).

In conclusion, the trust and loyalty of employees, constituting relational social capital, emerged as vital for business continuity amidst the chaos of war. Despite initial disruptions and flickering trust, management navigated the turbulent environment by fostering new functional narratives and providing context for their companies, leveraging the social capital established prior to the invasion. The common narrative of contributing to the country's fight for freedom motivated employees to keep working, demonstrating the interplay between cognitive and relational social capital in reinforcing organizational resilience. In the turbulence when you can't plan, functioning narratives enable collaboration. But you also need to trust the actors providing the narrative. Trust must be both cultivated and sustained, with a mindful approach to managing it in response to changes in the external environment. When the situation stabilized many companies had experienced how trust was regained and, in some cases, even strengthened. This aligns with previous research highlighting the significance of strong social capital in navigating challenges collectively and sustaining performance, even in turbulent times (Leana & Van Buren, 1999; Guiso, Sapienza & Zingales, 2004). Additionally, our study emphasizes the critical role of trust in new narratives amid unpredictable environments, highlighting the ongoing need for trust-building and management amidst external changes.

Expectations, Sanctions and Values: Civic Engagement

The low trust in the government's ability to alone defend the country and its citizens, forcing companies and individuals to step up and support wherever it is required. This came out of necessity but can also be linked to the previously mentioned pride many interviewees felt regarding the IT industry. The vision of how IT companies contribute to a prosperous future for Ukraine, became a basis for further beliefs in the companies' ability to also assist and support. As a result, both individuals we spoke with and their organizations made donations to various causes, e.g. helped house refugees, reintegrate veterans, and volunteered where it was necessary.

Despite interviewees saying that civic engagements were voluntary commitments, some also stated that it was expected from people and companies. This indicated that there were both norms and sanctions in place regulating this behavior. Those who are not contributing to the defense of Ukraine, or those who don't care are socially punished. One interviewee who had left Ukraine stated that he wished he had been more vocal about his donations, so that they would not be seen as "just the guys who left Ukraine", indicating that it was not a good identity to have. Still, there was an understanding that some companies were struggling and hence lacked the resources to donate to e.g. the army. While Coleman, 1988 points out that shared culture and norms promote actions towards collective interest, in case of civic engagement we could see the opposite connection. United in their desire to win the war, Ukrainians as a community formed a new norm of civic engagement.

Impact on Ukrainian Identity and Unity

A common analogy the interviewees shared was the notion of "growing up" as a consequence of the war, meaning the war forced people to mature and change perspectives. Further, this is something many interviewees who stayed in Ukraine state became a notable difference when they interacted with Ukrainians who left the country. The experience of war contributed to the creation of cognitive social capital in the form of a shared reality and a common narrative among Ukrainians, especially those who remained in Ukraine. As some interviewees even stated that "Russia helped us" by uniting the Ukrainians, their communities, and companies. Strengthened Ukrainian identity was obvious in our study, as per Nahapiet and Ghoshal (1998) identification is defined as "the process whereby individuals see themselves as one with another person or group of people". Further, identification with the "West" and "Western values" was common, indicating a narrative, and an ambition, to break away from the Russian culture sphere, and instead approach what is perceived at the west. This

perspective separates them from Russia, creating a new identity in relation to the west. This further contributed to forming a strong sense of unity.

5.3. External Social Capital and Client Relations

5.3.1. External Cognitive Social Capital

While there is high relational capital with employees due to the shared cultural elements, most clients of the study participants are international organizations, which leads to lower cognitive social capital already prior to full-scale invasion due to lack of shared narrative, language, and culture, but also the more transactional nature of the relations. These differences were further amplified for some SMEs by the onset of war, which drastically shifted cognitive connections between the Ukrainian business and international clients. A few study participants had a strong belief that people located outside of the war zone live in a "different world" as they did not go through the process of losing things they love to war. The war imposed life-threatening conditions that altered their narratives and values. While others did mention the presence of a common narrative to an extent, shared values and understanding of the new environment. The more transactional nature of relationships, and the differences in social reality are thus two important notions to remember in this section of the analysis.

However, no matter the take on the existence of the common narrative, enhancing it further due to the turbulent environment was important for all SMEs. Enhancing shared narratives through open communication and trust building became increasingly critical. As Barber (1983) notes, trusting relationships are formed when "common goals and values have brought and kept them together." Therefore, to foster a mutual understanding of the environment, crisis and risks associated with war, SMEs increasingly worked on relational capital, trust and communication as a way to strengthen cognitive connections.

5.3.2. External Relational Social Capital

Our study showed varied degrees of relational social capital with clients, as some experienced a high level of trust, understanding and commitment going forwards. This was particularly evident in SMEs who did a lot of outsourcing, from which we draw that clients who form closer relationships with

people working in Ukraine care more and are more likely to provide extra support and to be more understanding when operations were delayed. Companies who have lost a share of clients with the beginning of full-scale invasion did not display as strong relational connections. Because the relational dimension of social capital is strengthened by high quality relationships and interactions over a period of time (Lefebvre et al. 2016), clients who were historically loyal and stayed with SMEs for a long period of time prior to invasion, were more likely to remain after and provide support. Further, many clients with long relationships with SMEs tried to adjust what type of services and products they requested from the SMEs. For example, by moving to smaller projects risk was reduced while relationships were maintained.

Despite the different degrees of relational social capital observed pre-war and during the war, trust remained universally essential for all SMEs, particularly in the acute stage of the crisis. Lins, Servaes, and Tamayo, (2017) note that the performance, resilience, and success of organizations in crisis greatly depend on trust, which can decline without a shared culture or narrative, as suggested by Glaeser et al. (2000). Thus, transparent, and honest communication became crucial for building trust, a practice emphasized by SMEs in our study to demonstrate their capability to deliver results under new circumstances. However, SMEs faced dilemmas in choosing the right narrative for their clients, balancing the need to reassure that business operations were stable, while also conveying the social message about the ongoing crisis in Ukraine. Such contradictory communication could potentially undermine trust, indicating that SMEs in violent conflict settings must carefully select their communication strategies with international clients or partners. This situation highlights how trust and trustworthiness, critical components of social capital, can enhance both cognitive and structural relations in business settings (Muniady et al., 2015).

Digitalization has facilitated the internationalization of SMEs by expanding access to clients and resources, yet it also poses the risk of clients terminating contracts in favor of other suppliers. In response, SMEs have had to ensure their narratives are compelling and truthful to maintain good relationships, reinforcing the importance of trust and clear communication. This led to more professional and structured communication approaches to stabilize and enhance these international relationships.

Norms in relational social capital specify proper or correct actions in interaction between the parties (Coleman, 1990). From what we saw, war has not affected norms in client interactions as it has

remained professional and formal. Similarly, obligations to clients and a need to meet set expectations did not change due to the transactional nature of the relationship. However, in the pre-war environment, deviation from the norm established by two parties or inability to deliver on obligations and expectations resulted in the sanctions in the form of discontinued work with Ukrainian SME. Such sanctions became even less desirable in the acute crisis stage as they could deprive businesses of finances necessary for survival and lead to bankruptcy. Therefore, we observed that it is particularly crucial to stick to the norms in a crisis like war.

Given the transactional nature of client-provider relationships, there is no clear-cut need for unified identity between the two under regular circumstances, compared to the employees' relations. However, given the unique nature of full-scale invasion of the sovereign state in Europe, many clients came to share the narrative of "democratic West" identity and a belief in justice. Clients who identify with Ukrainian beliefs show solidarity and, to an extent, community spirit (Ntontis at al., 2020) to support the fight for freedom.

5.4. External Social Capital and Formal and Informal Networks

External networks are composed of both formal connections, such as partnership networks with other firms in the IT sector, and informal ones, including family, friends, and former colleagues. Volunteer organizations of various degrees of formality, through which some companies directed their efforts in supporting Ukraine are also classified as external networks.

The cognitive social capital within these networks, akin to the relationships with employees and clients, hinges on a shared culture, language, and narrative, which enables for trust to be built and for support structures to be developed. The pride many interviewees showed in relation to how their industry contributes to the development of the country is a shared narrative that is relevant also here. Ukrainian business partners, and even firms deemed as competitors, share stronger cognitive connection and sometimes even regard each other as "friends".

The partner networks demonstrated a high degree of reciprocity both before and during the conflict. The data showed that networks often served as referral programs where firms who lacked certain expertise could recommend other firms in their network for those particular services or products.

Alternatively, some companies had various kinds of pooling systems for their employees, where engineers could work for partner firms for a limited time when there was a peak in demand. Simultaneously, firms who temporally suffered from overstaffing benefited as they could keep their employees busy and avoid costs associated with traditional marketing strategies. These mutually beneficial practices created a buffer where companies shared resources, indicating high levels of relational social capital, and optimizes resource utilization as it enhances the efficiency and effectiveness of project execution. Further, many interviewees stated that networks were the easiest way to get new clients quickly.

While this collaborative practice was already established prior to Russia's invasion, we have observed that the presence of such networks and strong relational social capital within them can be crucial for survival during severe crises. These networks provide access to resources that might otherwise be unattainable, reinforcing their importance in times of acute need (Muniady et al., 2015). The war strengthened this perspective as many companies understood they had to collaborate in order to survive and keep on bringing economic resources into the country.

In conclusion, these bonds existing prior to the invasion enabled cooperation, the sharing of resources and information. Further, connections with international partners often take on a more transactional nature due to less commonality in culture and narrative. Instead, these arenas functioned as platforms for communication, where Ukrainian companies could share their narratives and seek support.

6. Conclusion

This section will present the answer to our research question and a discussion of implications, contributions and suggestions for future research.

6.1. Answer to Research Question

The research question was defined as follows:
How did social capital enable IT and software SMEs in Ukraine to sustain their operations after Russia's invasion?

We have discovered how internal and external social capital interplay and contribute to assisting SMEs adapt to the conditions following Russia's invasion. Internal social capital has been most prevalent and with the biggest implications for the studied firms. Here the importance of recruitment has been highlighted, as it enables early alignments with company culture, values, and ambitions. This strengthens the cognitive social capital in the firm, which further contributes to a relation where trust can be developed as well as norms of reciprocity, which are important factors in relational social capital and high-quality relationships, which showed to be an important foundation for resilience in times of crisis, and even, in some cases, increasing performance. Despite initial disruptions, management fostered new narratives, leveraging established social capital, to navigate the turbulent environment. Many SMEs invested heavily in their employees when the war started to ensure their well-being, safety and productivity, which further strengthened the relational social capital between employees and employers. However, these commitments were not just out of goodwill, but should also be seen as investments to ensure continuous employee productivity, highlighting the connection between social capital and business resilience.

Generally, in the Ukrainian IT industry, cognitive social capital, such as shared narratives, constitutes an important fundament for alignment and collaboration between SMEs in Ukraine. In particular, the narrative of Ukrainian IT as a success story has been crucial to keep optimism and belief in SMEs ability to actually contribute and have an impact. The narrative was internalized in the firms, providing direction as well as being leveraged to motivate employees to keep on working, even under challenging conditions and adversity. Further, the realization that the government and the army alone cannot

defeat Russia, in combination with the narrative of Ukrainian IT as a force to be reckoned with, and strong personal convictions, led most SMEs to start to engage in various forms of civic engagement aiming to support the country. Although stated to be voluntary commitments, it was more or less expected, and became a norm with sanction for those who did not contribute or engage. Russia's invasion further contributed to the creation of shared narratives and identification within Ukraine. Still, there were also perspectives on how the experiences of the war separated Ukrainians from people outside of the country, which makes communication and collaboration more difficult.

External social capital was also important. While SMEs in Ukraine possess strong relational capital with their employees, their cognitive social capital with international clients was lower due to cultural differences and the more transactional nature of the relationships. The nature of the IT industry being digital enabled SMEs to find clients outside of Ukraine that were not directly affected by the war. However, this also meant that clients could easily shift from Ukrainian companies if they were deemed to be too risky. Still, many clients had been with the firms for several years with deep trust-based relations, identified with the SMEs and wanted to support them to the best of their ability, despite the risks. To further facilitate this, and to strengthen both relational and cognitive social capital, many SMEs increased their communication and made it more formal to enhance shared narratives and align goals.

Formal and informal networks outside of the company emerged as crucial sources of resources, clients and information. This reduced costs and lead times, increased companies' efficiency and facilitated smooth collaboration. These bonds existing prior to the invasion enabled cooperation, the sharing of resources and information. More formal networks and associations also functioned as platforms for communication, where Ukrainian companies could share their narratives and seek support internationally.

6.2. Discussion and Contribution

Two years ago, Russian full-scale invasion of Ukraine set in shock economic activity of Ukrainian SMEs. Today in our study we aim to make a contribution to the preparedness of other organizations in the face of potential crisis by showing how social capital can be leveraged for resilience in violent conflict situations. From the academic standpoint, the role of social capital in crisis resilience is not

widely studied in violent conflict and especially such long-term crises like war. Therefore, we aim to demonstrate important aspects of social capital for resilience and the interplay of three dimensions of social capital as defined by Nahapiet & Ghoshal (1998), structural social capital, relational social capital and cognitive social capital.

Theoretical implications

Our study contributes to the existing literature on social capital by illustrating its role in the adaptation and resilience to violent conflict like war. Looking at social capital through a tri-dimensional framework of Nahapiet & Ghoshal (1998). Presented findings highlight how cognitive, relational, and external dimensions of social capital can collectively contribute to organizational resilience. In support to Aldrich, (2010), we identified that social capital networks provide access to information, resources, as well as mental and emotional support. Through the examination of a real-world violent conflict, we have been able to present a more nuanced view of the role of social capital at different stages of the event and different parts of the network. Furthermore, we identified that predominantly transactional relations with internal and external networks can become more reciprocal and solidarity-based, thus providing critical resources and support. Lastly, we are adding to the discussion on social capital and civic engagement and tap into the importance of business activities to the collective country-wide effort.

Managerial Implications

Our findings point out the strategic importance of cultivating social capital within organizations both prior to crisis and during a crisis. Already at the recruitment stage management should pay great attention to hiring employees who share the same values and even narratives to ensure alignment during a crisis. In the case of war, it is beneficial when employees share views on civic engagement and on the community role in the crisis. Continuous investment in building relationships and trust with internal and external networks are crucial for enhancing resilience in times of adversity. Open, honest and transparent communication can help in building trust and decrease levels of uncertainty for employees and clients. Moreover, we suggest that management proactively adapts communication narrative and ensures that it is not only consistent, but also fosters trust and unity with internal and external social capital. In a violent conflict like war, emphasis on employee well-being serves as a form of reciprocity to build trust, but also ensures long-term organizational effectiveness. Lasty, depending on the levels of national identity, proactive civic engagement can enhance a firm's reputation and

strengthen its social capital. In addition to actively supporting civic efforts, managers should think about how their companies fit into larger societal issues. This will help to further build the firm's internal and external social capital and align its interests with those of the country and the society.

6.3. Limitations with the Study

The researchers acknowledge certain considerable limitations of this study. Firstly, the current study's findings were restricted to qualitative research with a social constructivist and interpretivist approach. It implies that our interpretation is grounded in conflicts arising from our cultural bias and other personal perspectives. Secondly, the current study's findings were restricted to qualitative research in 18 IT and software firms. As a result, further study on a wider scale using more advanced qualitative or quantitative approaches to further analyze how SMEs adapted to the war is necessary.

Furthermore, the study's emphasis should be widened to cover other potential contributing elements – dependency on firms' financial performance, leadership role, HR-policy and staffing procedures. Finally, the scope of this study was limited to IT and software SMEs in Ukraine, which has a harder transferability of study's results and implications, as business practices and behavior varies between industries and countries based on cultural values.

6.4. Suggestions for Future Research

In light of the findings presented in this exploratory study, several avenues for future research emerge, building upon the identified gaps and opportunities. Firstly, further investigation into the intricate interplay among structural, relational, and cognitive dimensions of social capital is needed to reveal deeper nuances, finer intricacies, causal relationships, and connections. Further, exploring the interaction between internal and external forms of capital, as well as the dynamics of social capital across various societal levels, from individuals and communities to firms and governments, presents a promising avenue for future research. An area that could be of particular interest is cognitive social capital and the complexities arising when narratives, goals, and ambitions clash among different stakeholders, a phenomenon frequently observed, even in wartime scenarios.

Additionally, the relation between social capital and other influential factors, such as leadership style, power dynamics, financial performance, and gender norms, holds potential to improve our comprehension of the multifaceted nature and functionality of social capital. Further, comparative studies across different industries and geographical regions could offer valuable insights into the generalizability of our findings. Notably, the IT industry, distinguished by its proficiency in digital tools, platforms, and social media, presents a unique context for investigating how virtual networks and communication channels influence the social capital of an organization.

Lastly, it would be relevant for further research within the political sciences on what lessons can be learned in terms of policy implications from the war in Ukraine. Furthermore, future research in could extract valuable policy lessons from the Ukrainian conflict. Specifically, exploring the policy implications of nurturing social capital among SMEs as part of disaster preparedness and resilience-building initiatives. This research could provide policymakers and practitioners with insights into the pivotal role of social capital in fortifying firms, particularly SMEs, against crises.

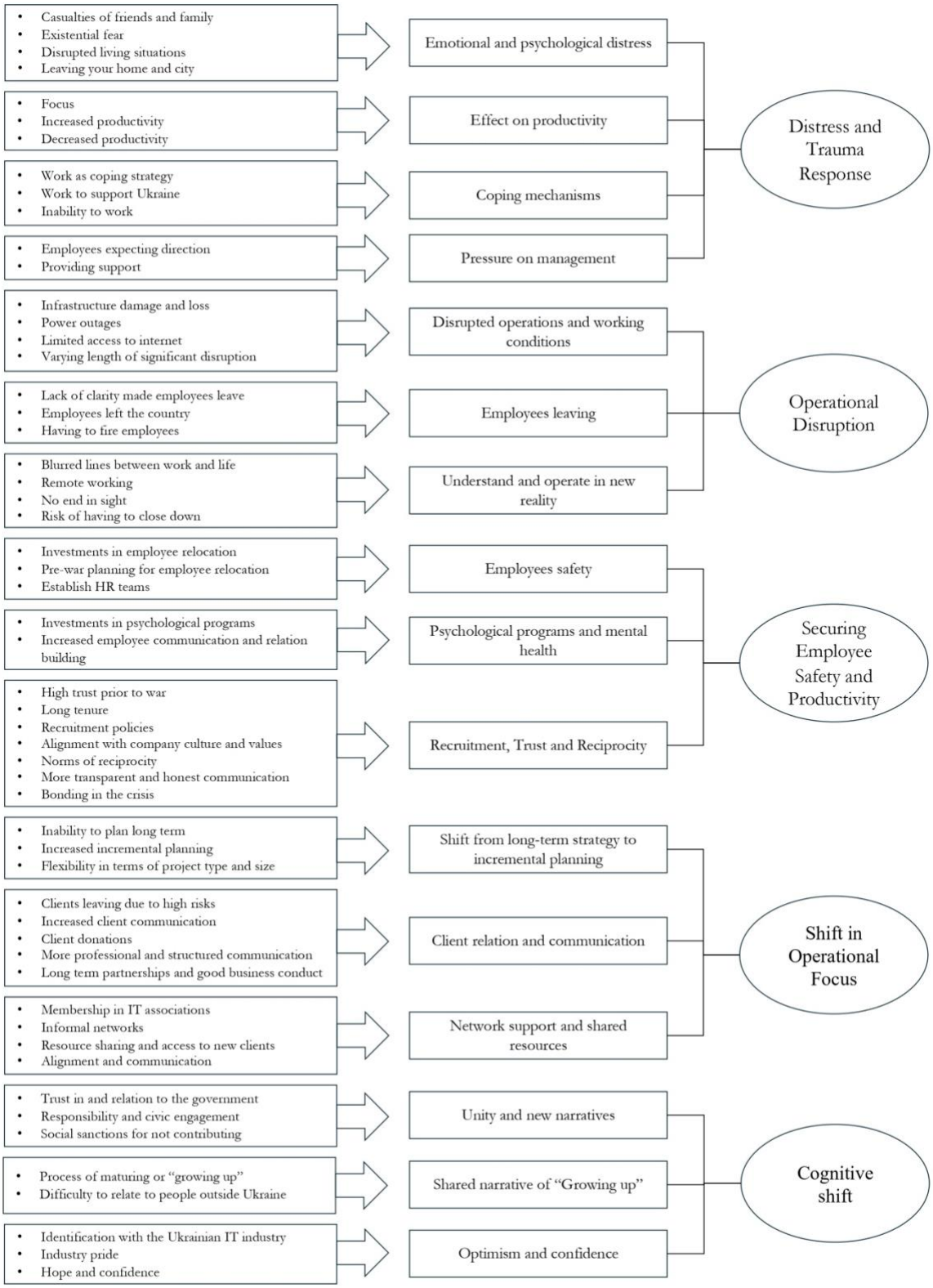
By addressing these areas or research, scholars could advance our understanding of the complex interplay between social capital, crisis management, and organizational resilience among SMEs across diverse settings.

Appendix

Appendix 1. *Interview Guide Questions*

Themes	Guiding Questions
Preparedness and before the invasion	• How would you describing the IT and software industry in Ukraine before the invasion. • To what extent was your company prepared for a disruptive event like an invasion?
Major Challenges & Impact Assessment	• What were the major challenges your business faced during the first six months after Russia's invasion? • What measures did your company take to address the negative impact of the invasion? • How did the interest from international customers change after the invasion? • How did your firm work to maintain your current customer relationships? • To what extent did you work together with other businesses or organizations to navigate challenges collectively? • Do you do anything to support Ukraine in the fight against Russia? • Can you describe the company's relationship to your employees/contractors? • Has the relationship changed? If yes, in what way? • Has the war changed the way you view your role as a company? If yes, in what way?
Lessons Learned	• Compared to before the invasion, how have your operations & startegy changed today? • What were the key learnings from your company's experience during the initial stages of the invasion? • How have these lessons been incorporated to enhance your company's resilience and preparedness for potential future disruptions?

Appendix 2. *Data structure*



Reference list

Ahmed, R., Seedat, M., Van Niekerk, A., & Bulbulia, A. (2004). Discerning community resilience in disadvantaged communities in the context of violence and injury prevention. South African Journal of Psychology, 34(3), 386-408. https://doi.org/10.1177/008124630403400304

Aldrich, D. P. (2010). Fixing recovery: Social capital in post-crisis resilience. Journal of Homeland Security. Purdue University. Retrieved from http://docs.lib.purdue.edu/pspubs/3

Aldrich, D. P. (2011). The Externalities of Strong Social Capital: Post-Tsunami Recovery in Southeast India. Journal of Civil Society, 7(1), 81–99. https://doi.org/10.1080/17448689.2011.553441

Aldrich, D. P. (2012a), Building Resilience: Social Capital in Post-Disaster Recovery. Chicago: University of Chicago Press.

Aldrich D. P. (2012b). The power of people: Social capital's role in recovery from the 1995 Kobe earthquake. Natural Hazards, 56, 595-561.

Aldrich, D. P., & Meyer, M. A. (2014). Social capital and community resilience. American Behavioral Scientist, 58(1), 1-16. https://doi.org/10.1177/0002764214550299

Aldrich, D. P., & Meyer, M. A. (2015). Social capital and community resilience. American Behavioral Scientist, 59(2), 254–269. https://doi.org/10.1177/0002764214550299

Armed Conflict Location & Event Data Project. (n.d.). ACLED dashboard. Retrieved April 12, 2024, from https://acleddata.com/dashboard/#/dashboard

Atkinson, P., Coffey, A., & Delamont, S. (2004). Key themes in qualitative research: Continuities and changes.

Audretsch, D. B., Belitski, M., Eichler, G. M., & Schwarz, E. (2024). Entrepreneurial ecosystems, institutional quality, and the unexpected role of the sustainability orientation of entrepreneurs. Small Business Economics, 62(1), 503-522. https://doi.org/10.1007/s11187-023-00763-5

Barro, R. J., & McCleary, R. M. (2002). Religion and political economy in an international panel (NBER Working Paper No. 8931). National Bureau of Economic Research. https://www.nber.org/papers/w8931

Barroso-Castro, C., Villegas-Periñan, M. del M., & Casillas-Bueno, J. C. (2015). How boards' internal and external social capital interact to affect firm performance. Strategic Organization, 14(1), 1-26. https://doi.org/10.1177/1476127015604799

Barber, B. (1983). The Logic and Limits of Trust. New Rutgers University Press.

Batjargal, B., Jack, S., Mickiewicz, T., Stam, E., Stam, W., & Wennberg, K. (2023). Crises, Covid-19, and Entrepreneurship. In Entrepreneurship: Theory and Practice (Vol. 47, Issue 3, pp. 651–661). SAGE Publications Ltd. https://doi.org/10.1177/10422587221145676

Bell, E., Harley, B., & Bryman, A. (2022). Business research methods (6th ed.). ISBN: 9780198869443.

Bonanate, L. (1979). Some unanticipated consequences of terrorism. Journal of Peace Research, 16(3), 197-211. https://doi.org/10.1177/002234337901600302

Bosio, E., Djankov, S., Jolevski, F., & Ramalho, R. (2020a). Survival of Firms during Economic Crisis. http://www.worldbank.org/prwp.

Bourdieu, P. (1985). The forms of capital. In J. Richardson (Ed.), Handbook of theory and research for the sociology of education (pp. 241-258). Greenwood Press.

Bourdieu, P. (1986) Forms of Capital, in Richardson, J. G. Handbook of Theory and Research for the Sociology of Education (ed) Westport: Greenwood Press, 241–60.

Bourdieu, P. (1997). The forms of capital. In A. H. Halsey (Ed.), Education: Culture, economy, and society (pp. 241-258). Oxford University Press.

Brück, T., Naudé, W., & Verwimp, P. (2013). Business under Fire: Entrepreneurship and Violent Conflict in Developing Countries. Journal of Conflict Resolution, 57(1), 3–19. https://doi.org/10.1177/0022002712464846

Brown, D., & Kulig, J. C. (1996/1997). The concepts of resiliency: Theoretical lessons from community research. Health and Canadian Society, 4(1), 29-52.

Buchanan, D. A., & Denyer, D. (2013). Researching tomorrow's crisis: Methodological innovations and wider implications. International Journal of Management Reviews, 15(2), 205–224. https://doi.org/10.1111/ijmr.12002

Burrell, G., & Morgan, G. (1979). Sociological Paradigms and Organisational Analysis: Elements of the Sociology of Corporate Life (1st ed.). Routledge. https://doi.org/10.4324/9781315242804

Campbell, A. J. (2003). Creating customer knowledge competence: Managing customer relationship management programs strategically. Industrial Marketing Management, 32(5), 375–383.

Chowdhury, M., Prayag, G., Patwardhan, V., & Kumar, N. (2020). The impact of social capital and knowledge sharing intention on restaurants' new product development. International Journal of Contemporary Hospitality Management, 32(10), 3271-3293. https://doi.org/10.1108/IJCHM-04-2020-0345

Chowdhury, M., Prayag, G., Orchiston, C., & Spector, S. (2019). Postdisaster social capital, adaptive resilience and business performance of tourism organizations in Christchurch, New Zealand. Journal of Travel Research, 58(7), 1209–1226. https://doi.org/10.1177/0047287518794319

Chowdhury, M. H., Quaddus, M., & Agarwal, R. (2019). Supply chain resilience for performance: Role of relational practices and network complexities. Supply Chain Management: An International Journal, 24(3), 317-334. https://doi.org/10.1108/SCM-09-2018-0332

Collier, P. (1999). On the Economic Consequences of Civil War. Oxford Economic Papers, Oxford University Press, 51(1), 168-183.

Coleman, J. S. (1988). Social capital in the creation of human capital. American Journal of Sociology, 94, 95–120.

Coleman, J. S. (1990) Foundations of Social Theory. Harvard University Press, Cambridge.

Corey, C. M., & Deitch, E. A. (2011). Factors affecting business recovery immediately after Hurricane Katrina. Journal of Contingencies and Crisis Management, 19(3), 169-181. https://doi.org/10.1111/j.1468-5973.2011.00642.x

Cortez, R. M., & Johnston, W. J. (2020). The coronavirus crisis in B2B settings: Crisis uniqueness and managerial implications based on social exchange theory. Industrial Marketing Management, 88, 125–135.

Cucculelli, M., & Peruzzi, V. (2020). Post-crisis firm survival, business model changes, and learning: evidence from the Italian manufacturing industry. Small Business Economics, 54(2), 459–474. https://doi.org/10.1007/S11187-018-0044-2/TABLES/7

Déniz-Déniz, M. de la C., Cabrera-Suárez, M. K., & Martín-Santana, J. D. (2020). Orientation toward key non-family stakeholders and economic performance in family firms: The role of family identification with the firm. Journal of Business Ethics, 163(2), 329-345.

De Clercq, D., Thongpapanl, N., & Dimov, D. (2009). When good conflict gets better and bad conflict becomes worse: The role of social capital in the conflict–innovation relationship. Journal of the Academy of Marketing Science, 37(3), 283–297. https://doi.org/10.1007/s11747-008-0122-0

De Clercq, D., Thongpapanl, N. (Tek), & Dimov, D. (2011). A closer look at cross-functional collaboration and product innovativeness: Contingency effects of structural and relational context. Journal of Product Innovation Management, 28(5), 680-697. https://doi.org/10.1111/j.1540-5885.2011.00830.x

De Clercq, D., Thongpapanl, N. (Tek), & Dimov, D. (2013).Organizational social capital, formalization, and internal knowledge sharing in entrepreneurial orientation formation. Entrepreneurship Theory and Practice, 37(3), 505-537. https://doi.org/10.1111/etap.12021

Dasgupta, P., & Serageldin, I. (2000). Social capital: A multifaceted perspective. World Bank Publications. https://doi.org/10.1596/0-8213-4562-1

Denison, D. R. (1990). Corporate culture and organizational effectiveness. John Wiley & Sons.

Doern, R. (2016). Entrepreneurship and crisis management: The experiences of small businesses during the London 2011 riots. International Small Business Journal: Researching Entrepreneurship, 34(3), 276–302. https://doi.org/10.1177/0266242614553863

Doern, R., Williams, N., & Vorley, T. (2019). Special issue on entrepreneurship and crises: business as usual? An introduction and review of the literature. Entrepreneurship and Regional Development, 31(5–6), 400–412). https://doi.org/10.1080/08985626.2018.1541590

Edmondson, A., & McManus, S. (2007). Methodological fit in management field research. Academy of Management Review, 32, 1155-1179. https://doi.org/10.5465/AMR.2007.26586086

Eurostat. (n.d.). Structural business statistics for special aggregates of activities. Retrieved April 3, 2024, from https://ec.europa.eu/eurostat/databrowser/view/SBS_SC_SCA_R2__custom_2928090/bookmark/table?lang=en&bookmarkId=4bdbd2d1-3236-4d2f-be66-c77585a6619e

European Commission. (2024.). SME definition. Single Market and Economy. Retrieved February 13, 2024, from https://single-market-economy.ec.europa.eu/smes/sme-definition_en

Falk, M.L. (2015) Post-Tsunami Recovery in Thailand: Socio-Cultural Responses. London: Routledge

Fathallah, R., Branzei, O., & Schaan, J. L. (2018). No place like home? How EMNCs from hyper turbulent contexts internationalize by sequentially arbitraging rents, values, and scales abroad. Journal of World Business, 53(5), 620–631. https://doi.org/10.1016/j.jwb.2018.04.001

Fink, S. (1986). Crisis Management: Planning for the Inevitable. American Management Association

Fukuyama, F. (1995). Trust: The social virtues and the creation of prosperity. New York: The Free Press.

Fukuyama, F. (2001). Social Capital, Civil Society and Development. Third World Quarterly, 22(1), 7–20.

Geertz, C. (1973). Thick Description: Toward an Interpretive Theory of Culture. In C. Geertz, The Interpretation of Cultures. New York: Basic Books.

Glaeser, E. L., Laibson, D. I., Scheinkman, J. A., & Soutter, C. L. (2000). Measuring trust. The quarterly journal of economics, 115(3), 811-846.

Glaeser, E. L., Laibson, D., & Sacerdote, B. (2002) An economic approach to social Capital. Economic Journal, 112, F437–F458.

Granovetter, M. (1974). Getting a job: A study of contacts and careers. Cambridge, MA: Harvard University Press.

Granovetter, M. (1983). The Strength of Weak Ties: A Network Theory Revisited. Sociological Theory, 1, 201–233. https://doi.org/10.2307/202051

Guiso, L., Sapienza, P., & Zingales, L. (2004). The role of social capital in financial development, American Economic Review 94, 526–556.

Guiso, L., Sapienza, P., & Zingales, L. (2006). Does Culture Affect Economic Outcomes? The Journal of Economic Perspectives, 20(2), 23–48. http://www.jstor.org/stable/30033649

Guiso, L., Sapienza, P., & Zingales, L. (2008). Trusting the stock market, Journal of Finance 63(3), 2557–2600.

Guiso, L., Sapienza, P., & Zingales, L. (2011). Civic Capital as the Missing Link: Handbooks in Economics. In J. Benhabib, M. O. Jackson, & A. Bisin (Eds.), Social Economics, Volume 1A: Handbooks in Economics (pp. 417-480). North-Holland.

Handmer, J. W., & Dovers, S. R. (1996). A Typology of Resilience: Rethinking Institutions for Sustainable Development. Industrial & Environmental Crisis Quarterly, 9(4), 482–511.

Hanifan L. J. (1916). The rural school community center. Annals of the American Academy of Political and Social Science, 67, 130-138.

Haynes, G. W., Danes, S. M., & Stafford, K. (2011). Influence of federal disaster assistance on family business survival and success. Journal of Contingencies and Crisis Management, 19(2), 86–98. https://doi.org/ 10.1111/j.1468-5973.2011.00637.x

Haynes, P. (2009). Before going any further with social capital: eight key criticisms to address.

Håkansson, H., & Johanson, J. (1992). A model of industrial networks. In B. Axelsson & G. Easton (Eds.), Industrial networks—A new view of reality (pp. 28-34).

Holling, C. S. (1973). Resilience and Stability of Ecological Systems. Annual Review of Ecology and Systematics, 4, 1–23. http://www.jstor.org/stable/2096802

Hurlbert J., Haines V. A., Beggs J. (2000). Core networks and tie activation: What kinds of routine networks allocated resources in nonroutine situations? American Sociological Review, 65, 598-618. https://doi.org/10.1177/000312240006500407

Hwang, P., & Lichtenthal, J. D. (2000). Anatomy of organizational crises. Journal of Contingencies and Crisis Management, 8(3), 129-140. https://doi.org/10.1111/1468-5973.00132

Inkpen, A. C., & Tsang, E. W. K. (2005). Social capital networks, and knowledge transfer. Academy of Management Review, 30(1), 146–165. https://doi.org/10.5465/AMR.2005.15281445

IT Ukraine Association. (2024). Do IT Like Ukraine: Annual report on the Ukrainian IT industry. IT Ukraine Association.

Johnson, N., Elliott, D., & Drake, P. (2013). Exploring the role of social capital in facilitating supply chain resilience. Supply Chain Management, 18(3), 324-336. https://doi.org/10.1108/SCM-06-2012-0203

Justino, P., & Verwimp, P. (2013). Poverty Dynamics, Violent Conflict, and Convergence in Rwanda. Review of Income and Wealth, 59(1), 66–90. https://doi.org/10.1111/j.1475-4991.2012.00528.x

Kalra, A., Agnihotri, R., & Briggs, E. (2021). The role of frontline Employees' competitive intelligence and Intraorganizational social Capital in Driving Customer Outcomes. Journal of Service Research, 24(2). https://doi.org/10.1177/1094670520958070

Kawachi, I., Kennedy, B. P., & Glass, R. (1999). Social capital and self-rated health: A contextual analysis. American Journal of Public Health, 89(8), 1187–1193. https://doi.org/10.2105/AJPH.89.8.1187

Kawachi, I., Kim, D., Coutts, A., Subramanian, S.V.. (2004). Commentary: Reconciling the three accounts of social capital. International Journal of Epidemiology, 33, (4), 682–690, https://doi.org/10.1093/ije/dyh177

Kelemen, M. L., & Rumens, N. (2008). An Introduction to Critical Management Research. SAGE Publications Ltd.

Kim, Y., & Cannella, A. A. (2008). Toward a social capital theory of director selection. Corporate Governance: An International Review, 16(4), 282-293.

Klein, R., Nicholls, R., & Thomalla, F. (2003). Resilience to natural hazards: How useful is this concept? Environmental Hazards, 5, 35–45.

Knack, S., & Keefer, P. (1997). Does Social Capital Have an Economic Payoff? A Cross-Country Investigation. The Quarterly Journal of Economics, 112(4), 1251–1288.

Koka, B. R., & Prescott, J. E. (2002). Strategic Alliances as Social Capital: A Multidimensional View. Strategic Management Journal, 23(9), 795–816. http://www.jstor.org/stable/3094279

Koronis, E., & Ponis, S. (2018). Better than before: The resilient organization in crisis mode. Journal of Business Strategy, 39(1), 32-42. https://doi.org/10.1108/JBS-10-2016-0124

Koubi, V. (2005). War and economic performance. Journal of Peace Research, 42(1), 67–82. https://doi.org/10.1177/0022343305049667

Kyne, D., & Aldrich, D. P. (2020). Capturing Bonding, Bridging, and Linking Social Capital through Publicly Available Data. Risk, Hazards & Crisis in Public Policy, 11(1), 61–86. https://doi:10.1002/rhc3.12183

La Porta, R., Florencio Lopez-de-Silanes, Shleifer, A., & Vishny, R. W. (1997). Trust in Large Organizations. The American Economic Review, 87(2), 333–338.

Leana, C. R., & Van Buren, H.J (1999) Organizational social capital and employment practices. Academy of Management Review, 24, 538–555.

Lefebvre, V. M., Sorenson, D., Henchion, M., & Gellynck, X. (2016). Social capital and knowledge sharing performance of learning networks. International Journal of Information Management, 36, 570–579. https://doi.org/10.1016/j.ijinfomgt.2015.11.008

Li, Y., Zhang, Y., & Zheng, S. (2016). Social capital, portfolio management capability and exploratory innovation: Evidence from China. Journal of Business and Industrial Marketing, 31(6), 794-807. https://doi.org/10.1108/JBIM-09-2012-0166

Lincoln, Y., & Guba, E. G. (1985). Naturalistic inquiry. Newbury Park, CA: Sage.

Lin, N. (1999a) Social Networks and Status Attainment. Annual Review of Sociology, 25, 467-487. http://dx.doi.org/10.1146/annurev.soc.25.1.467

Lin, N. (1999b) Building a Network Theory of Social Capital. Connections, 22, 28-51. http://www.insna.org/PDF/Connections/v22/1999_I-1-4.pdf

Lin, N. (2001). Social capital: A theory of social structure and action. Cambridge University Press: Cambridge, United Kingdom. 10.1017/CBO9780511815447

Lopez, H. & Wodon, Q. T. (2005). The Economic Impact of Armed Conflict in Rwanda. Journal of African Economies, 14(4), 586-602.

Lins, K. V, Servaes, H., & Tamayo, A. (2017). Social Capital, Trust, and Firm Performance: The Value of Corporate Social Responsibility during the Financial Crisis. The Journal of Finance, 72(4), 1785–1824. https://doi.org/10.1111/JOFI.12505

MacGillivray, B. H. (2018). Beyond social capital: The norms, belief systems, and agency embedded in social networks shape resilience to climatic and geophysical hazards. Environmental Science & Policy, 89(4), 116-125. https://doi.org/10.1016/j.envsci.2018.07.014.

Madhavaram, S., & Hunt, S. D. (2017). Customizing business-to-business (B2B) professional services: The role of intellectual capital and internal social capital. Journal of Business Research, 74, 38-46. https://doi.org/10.1016/j.jbusres.2017.01.007

Mantere, S., & Ketokivi, M. (2013). Reasoning in Organization Science. Academy of Management Review, 38(1), 70-89. https://doi.org/10.5465/amr.2011.0188

McEntire, D. A., Fuller, C., Johnston, C. W., & Weber, R. (2002). A comparison of disaster paradigms: The search for a holistic policy guide. Public Administration Review, 62(3), 267-281.

McPherson M., Smith-Lovin L., Cook J. M. (2001). Birds of a Feather: Homophily in Social Networks. Annual Review of Sociology, 27(1), 415-444. https://doi.org/10.1146/annurev.soc.27.1.415

Mishra, A.K. (1996) Organizational Responses to Crisis: The Centrality of Trust. In: Kramer, R.M. and Tyler, T.R., E., Eds., Trust in Organizations, Sage, Thousand Oaks, 261-287.

Morsut, C., Kuran, C., Kruke, B. I., Orru, K., & Hansson, S. (2021). Linking resilience, vulnerability, social capital and risk awareness for crisis and disaster research. Journal of Contingencies and Crisis Management, 30(2), 137–147. https://doi.org/10.1111/1468-5973.12375

Morrish, S.C. and Jones, R. (2020) Post-Disaster Business Recovery: An Entrepreneurial Marketing Perspective. Journal of Business Research, 113, 83-92. https://doi.org/10.1016/j.jbusres.2019.03.041

Mouw T. (2006). Estimating the causal effect of social capital: A review of recent research. Annual Review of Sociology, 32, 79-102.

Muniady, R. al, Mamun, A. al, Rosli Mohamad, M., Yukthamarani Permarupan, P., & Binti Zainol, N. R. (2015). The effect of cognitive and relational social capital on structural social capital and micro-enterprise performance. SAGE Open, 5(4). https://doi.org/10.1177/2158244015611187

Nahapiet, J., & Ghoshal, S. (1998). Social Capital, Intellectual Capital, and the Organizational Advantage. The Academy of Management Review, 23(2), 242–266. https://doi.org/10.2307/259373

Naudé, W. (2007). Peace, prosperity and pro-growth entrepreneurship. WIDER Discussion Paper. United Nations University, World Institute for Development Economics Research.

Norris, F. H., Stevens, S. P., Pfefferbaum, B., Wyche, K. F., Pfefferbaum, R. L. (2008). Community resilience as a metaphor, theory, set of capacities, and strategy for disaster readiness. American Journal of Community Psychology, 41(1-2), 127-150. https://doi.org/10.1007/s10464-007-9156-6

Office of the United Nations High Commissioner for Human Rights. (2024). Two-year update on the protection of civilians: The impact of hostilities on civilians. Retrieved April 3, 2024, from https://www.ohchr.org/sites/default/files/2024-02/two-year-update-protection-civilians-impact-hostilities-civilians-24.pdf

Organski, A. F. K., & Kugler, J. (1977). The Costs of Major Wars: The Phoenix Factor The Costs of Major Wars: The Phoenix Factor*. 71(4).

Ozanne, L. K., Chowdhury, M., Prayag, G., & Mollenkopf, D. A. (2022). SMEs navigating COVID-19: The influence of social capital and dynamic capabilities on organizational resilience. Industrial Marketing Management, 104, 116–135. https://doi.org/10.1016/j.indmarman.2022.04.009

Pauchant, T., & Mitroff, I. (1992). Mitroff Transforming the Crisis-Prone Organization: Preventing Individual, Organizational, and Environmental Tragedies. Jossey-Bass, San Francisco.

Pfefferbaum, B., Reissman, D., Pfefferbaum, R., Klomp, R., &Gurwitch, R. (2005). Building resilience to mass trauma events.In L. Doll, S. Bonzo, J. Mercy, & D. Sleet (Eds.), Handbook oninjury and violence prevention interventions. New York: KluwerAcademic Publishers.

Portes, A. (1998). Social Capital: Its Origins and Applications in Modern Sociology. Annual Review of Sociology, 24, 1–24.

Preston, D. S., Chen, D. Q., Swink, M., & Meade, L. (2016). Generating supplier benefits through buyer-enabled knowledge enrichment: A social capital perspective. Decision Sciences, 48(2). https://doi.org/10.1111/deci.12220

Putnam, R. D., Leonardi, R., & Nonetti, R. Y. (1993). Making Democracy Work: Civic Traditions in Modern Italy. Princeton University Press. https://doi.org/10.2307/j.ctt7s8r7

Putnam, R.D. (2000). Bowling Alone: America's Declining Social Capital. In: Crothers, L., Lockhart, C. (eds) Culture and Politics. Palgrave Macmillan, New York. https://doi.org/10.1007/978-1-349-62397-6_12

Rogoff K. (2022). The Long-lasting Economic Shock of War. International Monetary Fund. https://www.imf.org/en/Publications/fandd/issues/2022/03/the-long-lasting-economic-shock-of-war

Roux-Dufort, C. (2007). Is crisis management (only) a management of exceptions? Journal of Contingencies and Crisis Management, 15(2), 105–114. https://doi.org/10.1111/j.1468-5973.2007.00507.x

Salunkhe, U., Rajan, B., & Kumar, V. (2023). Understanding firm survival in a global crisis. International Marketing Review, 40(5), 829–868. https://doi.org/10.1108/IMR-05-2021-0175/FULL/XML

Sanchez-Famoso, V., Mejia-Morelos J.-H., & Cisneros, L. (2020). New Insights into Non-Listed Family SMEs in Spain: Board Social Capital, Board Effectiveness, and Sustainable Performance. Sustainability, MDPI, 12(3), 1-18. https://doi.org/10.3390/su12030814

Saunders, M., Lewis, P. and Thornhill, A. (2012) Research Methods for Business Students. Pearson Education Ltd., Harlow.

Scrivens, K., & Smith, C. (2013). Four interpretations of social capital: An agenda for measurement (OECD Statistics Working Papers, 2013/06). OECD Publishing. https://dx.doi.org/10.1787/5jzbcx010wmt-en

Scrivens, K. & C. Smith (2013), Four Interpretations of Social Capital: An Agenda for Measurement. OECD Statistics Working Papers, No. 2013/06. OECD Publishing. https://doi.org/10.1787/5jzbcx010wmt-en.

Shrivastava, P., Mitroff, I. I., Miller, D., & Miglani, A. (1988). Understanding industrial crises. Journal of Management Studies, 25(4), 285-304.

Small M. L. (2010). Unanticipated gains: Origins of network inequality in everyday life. New York, NY: Oxford University Press.

Smith, B. W., Dalen, J., Wiggins, K., Tooley, E., Christopher, P., & Bernard, J. (2008). The Brief Resilience Scale: Assessing the ability to bounce back. International Journal of Behavioral Medicine, 15(3), 194-200. https://doi.org/10.1080/10705500802222972

Smith, D. (1990). Beyond contingency planning: Towards a model of crisis management. Organization & Environment, 4(4), 263–275. https://doi.org/10.1177/108602669000400402

Solimano, A. (2002.). Globalizing talent and human capital: Implications for developing countries.

Spicer, A., McDermott, G. A., & Kogut, B. (2000). Entrepreneurship and privatization in Central Europe: The tenuous balance between destruction and creation. Academy of Management Review, 25(3), 501-524. https://doi.org/10.2307/259315

State Statistics Service of Ukraine. (2021). Demographic and social statistics. Retrieved April 3, 2024, from http://ukrstat.gov.ua/operativ/operativ2007/ds/nas_rik/nas_u/nas_rik_u.html

Stewart, F. & Fitzgerald, V. (2001). War and Underdevelopment. Oxford University Press. 10.1093/acprof:oso/9780199241866.001.0001

Sullivan-Taylor, B., & Branicki, L. (2011). Creating resilient SMEs: Why one size might not fit all. International Journal of Production Research, 49(18), 5565-5579. https://doi.org/10.1080/00207543.2011.563837

Szreter S., Woolcock M. (2004). Health by association? Social capital, social theory, and the political economy of public health. International Journal of Epidemiology, 33, 650-667. https://doi.org/10.1093/ije/dyh013

Tusaie, K., & Dyer, J. (2004). Resilience: A historical review of the construct. Holistic Nursing Practice, 18(1), 3-8. https://doi.org/10.1097/00004650-200401000-00002

Torres, A. P., Marshall, M. I., & Sydnor, S. (2019). Does social capital pay off? The case of small business resilience after Hurricane Katrina. Journal of Contingencies and Crisis Management, 27(2), 168–181. https://doi.org/10.1111/1468-5973.12248

Transparency International. (2023). Corruption Perceptions Index 2023. Retrieved April 3, 2024, from https://www.transparency.org/en/cpi/2023

Trivers, R. L. (1971). The evolution of reciprocal altruism. The Quarterly Review of Biology, 46(1), 35–57.

Tsai, W., & Ghoshal, S. (1998). Social Capital and Value Creation: The Role of Intrafirm Networks. The Academy of Management Journal, 41(4). https://doi.org/10.2307/257085

United Nations Development Programme. (2024). Assessment of the the impact of the war on micro, small and medium-sized enterprises in Ukraine. https://www.undp.org/sites/g/files/zskgke326/files/2024-04/undp-ua-smb-2024.pdf

Villena, V. H., Revilla, E., & Choi, T. (2011). The dark side of buyer-supplier relationships: A social capital perspective. Journal of Operations Management, 29(6), 561-576. https://doi.org/10.1016/j.jom.2010.09.001

Waller, M. A. (2001). Resilience in ecosystemic context: Evolution of the concept. American Journal of Orthopsychiatry, 71(3), 290–297. https://doi.org/10.1037/0002-9432.71.3.290

Wang, Z., Sharma, P. N., & Cao, J. (2016). From knowledge sharing to firm performance: A predictive model comparison. Journal of Business Research, 69(12), 4650-4658. https://doi.org/10.1016/j.jbusres.2016.03.055

Westerlund, M., & Svahn, S. (2008). A relationship value perspective of social capital in networks of software SMEs. Industrial Marketing Management, 37(5), 492-501. https://doi.org/10.1016/j.indmarman.2008.04.003

Wickes, R. L., Pickering, S., Mason, G., Maher, J. M., & McCulloch, J. (2016). From hate to prejudice: Does the new terminology of prejudice motivated crime change perceptions and reporting actions? The British Journal of Criminology, 56(2), 239–255. https://doi.org/10.1093/bjc/azv041

Williams, T. A., Gruber, D. A., Sutcliffe, K. M., Shepherd, D. A., & Zhao, E. Y. (2017). Organizational response to adversity: Fusing crisis management and resilience research streams. The Academy of Management Annals, 11(2), 733-769. https://doi.org/10.5465/annals.2015.0134

Woolcock, M. (1998). Social capital and economic development: Toward a theoretical synthesis and policy framework. Theory and Society, 27, 151–208. https://doi.org/10.1023/A:1006884930135

Zhou, L., Peng, M.-Y., Shao, L., Yen, H.-Y., Lin, K-H., & Anse,r M.-K. (2021). Ambidexterity in Social Capital, Dynamic Capability, and SMEs' Performance: Quadratic Effect of Dynamic Capability and Moderating Role of Market Orientation. Frontiers in Psychology, 11. https://doi/10.3389/fpsyg.2020.584969.