Entrepreneurship in Developing Markets: Three Studies About Relational, Political, and Institutional Factors That Shape Entrepreneurial Performance in Togo

Entrepreneurship in developing markets: Three studies about relational, political, and institutional factors that shape entrepreneurial performance in Togo

A dissertation presented

by

Stefan Dimitriadis

to

the Department of Business Studies

in partial fulfillment of the requirements

for the degree of

Doctor of Philosophy

in the subject of

Organizational Behavior

Harvard University

Cambridge, Massachusetts

April 2019

Dissertation Advisor: Julie Battilana Author: Stefan Dimitriadis

Entrepreneurship in developing markets: Three studies about relational, political, and institutional factors that shape entrepreneurial performance in Togo

Abstract

This dissertation is a study of the factors that affect business performance for entrepreneurs in developing countries. The studies in this dissertation use data from a field experiment, a longitudinal survey, coding of newspaper articles, and interviews conducted in Togo to examine three distinct phenomena that influence entrepreneurial performance in developing markets. The first study examines the role of cooperative frames in the formation of new business relationships among entrepreneurs. This study shows that cooperative frames help catalyze the formation of new relationships that add diversity to entrepreneurs' networks and improve business performance for entrepreneurs. The second study considers the effects of exposure to political violence on entrepreneurs' business performance and potential strategies to buffer them from the effects. I find that proximity to violent protests dramatically reduces profits, but that these losses can be mitigated through social resilience, defined as being embedded in a network of peer advisors and the local community. Finally, my last study examines how the effect of legal registration of entrepreneurs' businesses varies by entrepreneurs' gender. Although male entrepreneurs benefit from the legal registration of their businesses, women entrepreneurs benefit even more because it helps mitigate negatively biased evaluations of them. These studies touch on a variety of relational, political, and institutional factors that shape the dynamics of entrepreneurial performance in developing markets. In doing so, they contribute to organization theories about network formation, relational strategies and social movements, as well as the interplay of formal institutions and cultural status beliefs.

TABLE OF CONTENTS

ACKNOWLEDGEMENTS

In some ways, this section of the dissertation is the hardest to write for me. So many people have helped me in so many different ways that I find my writing abilities fail me in my effort to articulate my thanks to so many people, for so many things. But, limited as I am, I will try to express how grateful I am to have had all of these people in my life during this journey and what a difference they have made to me.

I would like to begin by thanking my adviser and mentor Julie Battilana. I met Julie in August of 2011, when I began working for her as a research associate. It was a time when I felt very negatively about academia. I had not particularly enjoyed my time at Oxford University or McGill University, and had come to believe that academia was a harsh and cold place. But, Julie showed me a very different academic world. She showed me that you could work hard and do difficult academic research while also being a kind, encouraging, and collaborative person. I found that world to be very enticing and I haven strived to become a part of it, I still strive to be a part of it, and to live up to Julie's example.

To list all of the things that Julie has done to help me over the past eight years would take an entire additional dissertation, and while I am grateful for everything I've received, I will limit myself here to three important things that Julie has taught me. First, she taught me that I'm not alone. Academia is not a solitary pursuit, it's a collective one. This applies both in the intellectual sense of the pursuit of knowledge, but also in the personal sense of social support. Good research is difficult to do and no matter how smart you are you'll always need and benefit from talking to others. Second, always persist. The path to understanding the world is far from linear and, added to that, the socially constructed communities of knowledge that we are a part of can also add detours and obstacles. So, be ready for rejections and don't panic, stay steady and

things will take their course. Third, there's more to academia than research. By this mean that academia isn't just about publishing papers, it's also about relationships. Relationships to colleagues, students, mentors, research participants, staff, and others. These relationships are opportunities to make life richer and more fulfilling. So, it's important to cherish them and recognize them. I cannot list all of the instances during which Julie taught me these things, but I have had the good fortune to work with her for a while and I believe that these are the lessons that I've taken away from observing her work.

I cannot thank enough my other adviser and mentor, who has also known me since before graduate school, Metin Sengul. His kindness and generosity are difficult to summarize in these lines, but two aspects of his support that stand out to me are the amount of time that he dedicated to me and the breadth of topics that he helped me with. First, Metin was never too busy to talk to me or meet with me. When we did meet or talk, our discussions often lasted for hours as we went over the details of my (usually faulty) theoretical arguments and methods. Metin's dedication was such that he reviewed every line that I wrote, even the footnotes. He went through all my application materials (all those long research statements and resumes), multiple times and each time with new comments. Metin's comments were so detailed that he could even bring to my attention when I had mixed font sizes or mismatched paragraph styles. I am very grateful to have had someone who dedicated so much of his time to helping me. The second thing that I cherish about Metin's support was its wide breadth. He didn't just review my research, he also made sure that I was a well-rounded academic, someone who had experience writing published articles, reviewing, writing grants, teaching, and presenting. As a result, he gave me the tools that I needed to succeed. There are many more examples of Metin's support that come to mind, but I will limit myself to these two core aspects for now. I can say that in Metin I saw an example of

an academic that I strive to emulate, not just in terms of productivity or quality, but also in integrity and generosity.

I am very grateful to Peter Marsden for his generous help and support throughout the time I worked on my dissertation. While working with Peter I found that he was always able to understand what I was trying to express, no matter how muddled or obscure my writing was. Peter was also able to reduce my arguments to their bare essentials and very clearly point me to places where my theoretical arguments failed or where my methodology was unclear. I have benefited greatly from receiving Peter's precise and nuanced comments. They've not only taught me how to construct more precise and clear arguments, but also how to be methodical about testing them. I'm thankful that I was able to receive help from Peter during my time at Harvard.

Finally, I would also like to thank Rembrand Koning. I first met Rem during a visit to Stanford, when he was still a graduate student and I was so impressed by his plans with Sharique to start an organization in India that when he later joined the faculty at Harvard I walked into his office to ask for help in doing something similar in Togo. Since then he's not only been a rich source of experience, research expertise, and advice about field experiments, he's also been a vocal champion and supporter of my work. I have personally found his enthusiasm and excitement about research to be infectious in the best of ways. I'm very grateful to have had his support.

Having thanked the members of my dissertation committee, I would also like to thank all the people in Togo who made this dissertation possible. First and foremost is Claude Grunitsky. I cannot thank him enough for introducing me to Togo and for putting me in touch with so many different people that then helped me realize this research. I would like to thank Ayité Eklu who was my right hand man in Togo – he taught me how to hail cabs, how to haggle, and how to

navigate the streets of Lomé. I would like to thank Racim Alandou, who was essential in getting the field experiment setup and running. The two instructors who taught the courses during the field experiment, Alaye Abalo and Nyaku Yao, are amazing people. Their talent as instructors and their unfailing hard work allowed us to train over 320 entrepreneurs in six weeks. It was a tremendous amount of work and they went above and beyond to complete it. Similarly, Essenam Agblevo and Matt Thibek did excellent work in the follow-up surveys with entrepreneurs, I relied on them heavily and they performed better than I could have hoped for. I would also like to thank Astria Fataki, CEO of Energy Generation Academy, who hosted the training program and was also a source of support while running the field experiment. Minister Cina Lawson was also helpful in building momentum for the project to succeed. In addition to these specific individuals, I would very much like to thank all the entrepreneurs that I interviewed over the years and all the entrepreneurs who participated in the training program and the surveys. Their contributions were essential and it is to their credit that this study was even possible.

Throughout this process I benefited greatly from comments and feedback from faculty at Harvard and elsewhere. I received helpful notes on early versions of various chapters from Phillip Bromiley, J.P. Eggers, Adam Kleinbaum, Matt Marx, Mary-Hunter McDonnell, Ryan Raffaelli, Lakshmi Ramarajan, Chris Rider, Ned Smith, and Dan Wang, among many others. I apologize if I have mistakenly omitted anyone, I remain grateful for everyone's help.

This research would not have been possible without the generous support of the Kauffman Foundation, which awarded me the Kauffman Dissertation Award, the Strategic Research Foundation, which awarded me the Graduate Student Fellowship, the Center for African Studies at Harvard University, which provided a winter travel award, and the Doctoral Programs Office at Harvard Business School, which also contributed significant funds towards

the completion of this dissertation. For all of their support of this research I remain deeply grateful.

Finally, I could not have made it through all of this without the steady support of my friends. To Miguel, Alex, Linda, and Sebastian – my doctoral comrades – with whom I've traversed all these doctoral years: thank you, you made this tough trip so much more fun. I also would like to thank my other friends in doctoral programs who were such sources of support and inspiration, thank you Curtis Chang, Chris Eaglin, Allie Feldberg, Martha Jeong, Do Yoon Kim, Kwan Woo Kim, Mike Lee, Ryann Manning, Kim Pernell-Gallagher, Lumumba Seegars, Mike Teodorescu, and anyone else that I may have regrettably missed.

Ellie, my partner, you've been a constant source of support and you've always helped me get through the difficult times and, importantly, you've also taught me how to celebrate the good ones. Thank you for being a wonderful person and for being in my life. To my parents, Christine and George, thank you for being the best parents that a son could hope for. All my intellectual curiosity, all my drive, and all my achievements I owe to you. You made it possible for me to pursue my academic aspirations, which has been my life's saving grace. Finally, to my sister Chloe. I don't know how you became such an amazing person, but you're the kindest and most generous person that I know. I owe you much more, but, as a start, I dedicate to you this dissertation.

Chapter 1.

Introduction

The first time I left Togo in 2015 I was convinced that I would never return. The trip had been, from a research perspective, a bit of a bust. Interviews were impossibly difficult to conduct and a disgruntled former employee of my host organization stole the handwritten survey responses from my pilot survey of young entrepreneurs - all 450 of them.

I wasn't in a hurry to go back to Togo after that. But the truth is that, despite the challenges, I was hooked. What I saw there was so different from any of the research that I'd studied in my coursework, I felt like there were new research puzzles to be solved and novel phenomena to be documented at every corner.

My excitement with Togo was a reflection of the fact that existing research in management, organization theory, and strategy has not examined in detail how businesses in Africa behave, survive, and grow over time. Africa is an example of a *low resource environment* (LRE) for organizations. This means that there is a lack of human and financial capital, income poverty is prevalent, corruption and political instability are pervasive, and formal institutions are weak. These conditions are pertinent to many organizations, both in developed and developing economies.

Beyond their inherent importance, LREs are also extreme settings for the study of entrepreneurship and social networks. In LREs, entrepreneurship is very prevalent because of the lack of alternative sources of employment and it has important consequences in terms of its impact on peoples' wellbeing. Moreover, most entrepreneurs there operate with fewer resources, so the barriers are higher and as a result there is a need for more strategic solutions. These strategic solutions could be of interest to entrepreneurs in non-LREs as well.

In addition to that, LREs are good environments to study social networks. The absence of alternative resources, like technology, human capital, and financing means that relationships are key in succeeding. In the realm of social networks, what I'm particularly interested in is how cooperative relationships are formed. The fundamental question, for me, is how do we get people to help each other? Given the tools that sociologists use, this can be thought of as the formation of new relationships founded on an understanding and engagement in cooperation.

Existing research on social networks tends to focus on what kinds of network structures lead to the best kinds of outcomes for individuals and organizations. Most of this research suffers from at least two shortcomings: 1) lack of causality; 2) abstracts away from the meaning and content of relationships. The lack of causality can be addressed by the development of field experiments. The meaning and content of relationships is a more complex issue that is difficult to address. Some of the difficulty relates to the way we measure relationships and networks. Most entrepreneurship research focuses on relationships that are a source of advice, financial or technical support, or emotional support. The characteristics of these relationships are often boiled down to the strength of the tie. These abstractions make it difficult to understand what exactly the individual is getting from the relationship. In order to move forward there is a need for understanding how individuals perceive others, how interactions play out, how communication goes on within the relationship, how the relationship began and whether it has qualitatively changed over time.

My dissertation attempts to shed light on some of these issues. In 2016 I went back to Togo with the goal of learning from entrepreneurs what their challenges were and what they did to succeed in the face of those challenges. Three phenomena stood out to me and I decided to focus on those. First, the role of business relationships was central to entrepreneurs, but building

new relationships was challenging. So, the first research question I posed was how can we help entrepreneurs build more new business relationships? Second, the political situation in Togo was gravely precarious, meaning that cities were frequently rocked by protests, military interventions, and police brutality. I wanted to show how much these protests affect entrepreneurs and explore what they might do to buffer those effects. Finally, although formal institutions in Togo are weak, they matter a great deal as sources of legitimacy. A critical formal institution for entrepreneurs is the legal registration of businesses with tax authorities. I wanted to know whether registration helped everyone and whether it could be a tool for helping entrepreneurs from marginalized social groups.

Over the course of four visits, I conducted a series of interviews with aspiring and successful entrepreneurs. I launched a longitudinal survey of approximately 420 entrepreneurs in the capital of Togo, Lomé, that followed entrepreneurs for one year. I also conducted a field experiment to measure the impact of an intervention on networking between entrepreneurs. I used the data from these sources to explore how various factors influence entrepreneur performance.

Outline of the dissertation

This dissertation is made up of three research papers, each of which tackles a different factor that is consequential to the performance of entrepreneurs' businesses. In the first study I explore how entrepreneurs can form more new business relationships. In developing markets entrepreneurs often face challenges to building new relationships that help diversify their networks because formal institutions are weak. I explore how the perception of prospective interactions affects relationship formation. I argue that in contexts where first interactions among entrepreneurs are high risk, framing them cooperatively leads to the formation of more

relationships and to relationships that exhibit more skill complementarity. To test this theory, I conducted a randomized field experiment with 301 entrepreneurs who participated in a business training program. A random subset were exposed to cooperative frames, which are scripts that draw attention to and motivate interactions guided by the mutual exchange of help. I found that exposure to cooperative frames led to a 50 percent increase in the number of relationships formed among entrepreneurs, and that these relationships were characterized by more complementarity of entrepreneurs' skills. Furthermore, I found that the businesses of entrepreneurs who were exposed to cooperative frames were significantly more profitable six months after the training program, holding everything else constant. This study shows that the formation of new business relationships in developing markets also depends on the initial framing of interactions, a factor that has so far not been taken into account.

Another issue that entrepreneurs in developing markets frequently contend with are violent protests. In this study I explore the effect of violent protests on business performance. I show that violent protests can have devastating effects on the performance for businesses located within a certain range of the protest. However, entrepreneurs who are involved in their local community and have relationships to peer entrepreneurs tend to experience fewer losses. Involvement in the community creates a large source of trusted contacts who can support the business during violent protests. Similarly, having relationships to peer entrepreneurs can enable entrepreneurs to learn from others' experiences and improve their business practices. Using data from a longitudinal survey of businesses in Togo which followed businesses during an upsurge in protests and combining that with detailed manual coding of the protests as reported in the media, I show that proximity to violent protests leads to losses of approximately 14% in business

profits. I also find empirical support for the mitigating effect of having peer relationships and being engaged in the local community.

The third and final study in this dissertation examines the issue of informal markets. Although there is growing evidence that legal registration of businesses with the state is associated with gains in business performance, it remains unclear how the effects of registration differ by entrepreneurs' gender. I argue that women entrepreneurs benefit more from formality than their male counterparts. The reason for this difference is that legal registration tends to counteract harmful cultural beliefs about gender and entrepreneurship. I test this theory using unique data from a survey of entrepreneurs in Togo. Similar to other studies, I find that on average formality has a positive effect entrepreneurs' business performance. However, the results also show that women entrepreneurs benefit disproportionately from formality.

Chapter 2.

Cooperative frames and the formation of business relationships: A field experiment with entrepreneurs in Togo

Abstract

How can entrepreneurs form more business relationships? In developing markets, this can be challenging because there are no formal institutions to secure interactions. In this study, I explore an overlooked factor that plays a pivotal role in the formation of business relationships in developing markets: the perception of prospective interactions. I argue that in contexts where first interactions among entrepreneurs are high risk, framing them cooperatively leads to the formation of more relationships and to relationships that exhibit more skill complementarity. To test this theory, I conducted a randomized field experiment in Togo with 301 entrepreneurs who participated in a business training program. A random subset were exposed to cooperative frames, which are scripts that draw attention to and motivate interactions guided by the mutual exchange of help. I found that exposure to cooperative frames led to a 50 percent increase in the number of relationships formed among entrepreneurs, and that these relationships were characterized by more complementarity of entrepreneurs' skills. Furthermore, I found that the businesses of entrepreneurs who were exposed to cooperative frames were significantly more profitable six months after the training program, holding everything else constant. This study shows that the formation of new business relationships in developing markets also depends on the initial framing of interactions, a factor that has so far not been taken into account.

Business relationships are an important resource for entrepreneurs. There is broad agreement in management and strategy research that entrepreneurs with more business relationships are likelier to find out about market opportunities, learn complex skills, and access resources (Chatterji, Delecourt, Hasan, & Koning, 2018; Kim & Aldrich, 2005; Stuart & Sorenson, 2007). Such business relationships are particularly important for entrepreneurs in developing markets, where the scarcity of resources makes them even more valuable (Armanios, Eesley, Li, & Eisenhardt, 2017; Batjargal et al., 2013; Fafchamps, 2006).

For entrepreneurs in developing markets, however, creating new business relationships is exceedingly difficult. Developing markets are characterized by a lack of formal market-supporting institutions, such as regulatory agencies, courts, and financial institutions, among others (George, Corbishley, Khayesi, Haas, & Tihanyi, 2016; Khanna & Palepu, 2010; Marquis & Raynard, 2015). In the absence of these institutions, entrepreneurs face significant risks when interacting with individuals outside their family, neighborhood, or ethnic group (Geertz, 1978; Greif, 1993). Because of these risks, many of the relationship-building mechanisms for entrepreneurs that we know of, such as networking events or entrepreneurship clubs (Hallen & Eisenhardt, 2012; Saxenian, 1994) that rely primarily on bringing entrepreneurs into the same physical setting, aren't enough to foster the formation of new business relationships (Abebe et al., 2017; Fafchamps & Quinn, 2015). These mechanisms fail because entrepreneurs perceive interactions with others as risky and as a result being in the same physical space does not generate exchanges that enable them to learn about each other. Because of this, I argue that in addition to bringing them into contact, entrepreneurs must also interpret initial interactions as cooperative in order to generate new business relationships.

In this paper, I argue that when initial interactions between entrepreneurs are framed cooperatively it leads to the formation of more business relationships and to relationships that are characterized by more skill complementarity. Interactions can be framed cooperatively through what I define as *cooperative frames*. These are specialized scripts that are deployed within settings where entrepreneurs interact and help provide the necessary information on how to perceive a specific kind of interaction and develop a shared understanding about it. These types of exchanges enable entrepreneurs to learn more about each others' behaviors and business skills, which helps mitigate risks perceived in prospective relationships, and enables them to form more business relationships. This information also enables entrepreneurs to better identify those who possess business skills that they wish to learn, thereby leading to more relationships with complementary skills. Finally, these new relationships help entrepreneurs increase the performance of their businesses by increasing their profits.

In this study, I use a field experiment to examine the effect of cooperative frames on the formation of relationships among entrepreneurs in a business training program. I created the training program for entrepreneurs in Lomé, Togo, and randomized the deployment of cooperative frames. A series of fourteen groups of entrepreneurs participated in the program, each consisting of 20-25 participants, with a total of 301 entrepreneurs completing the training and follow-up surveys. In both the control and treatment groups, participants learned about seven marketing practices over the course of two days. Half of the groups were randomly selected to also receive the treatment of cooperative frames. For these groups, the cooperative frame was discursively deployed through a two-hour presentation at the beginning of the program.

Lomé is a suitable context for testing the proposed theory because forming business relationships for entrepreneurs in Togo is a difficult process. As in other developing markets, the institutional environment is characterized by a lack of formal market supporting institutions, such as courts that protect property rights or regulatory agencies. As a result, information about market actors is scarce and the enforcement of contracts is problematic. Therefore, transactions in Togolese markets are often risky. Accordingly, interactions among entrepreneurs tend also to be risky and new business relationships are difficult to form. The default framing for interactions tends *not* to be cooperative, which makes it easier to test the effect of cooperative framing on the formation of relationships through the field experiment.

Based on the data collected from the participants over the course of the training program and during two follow-up surveys, the results show that cooperative framing increased the number of relationships formed six weeks after the program by about 50 percent. Moreover, a higher proportion of the ties formed by participants in the treatment groups were directed towards entrepreneurs with skills that the focal entrepreneur had expressed a desire to learn. In other words, a higher proportion of relationships exhibited a match on skills. In addition, entrepreneurs who were exposed to the cooperative frames experienced an increase in their performance after the training program.

This study makes three contributions. First, it contributes to the literature on the formation of business relationships by highlighting the importance of the way entrepreneurs perceive initial interactions with other entrepreneurs and the frames that shape those perceptions. There is a plethora of research on the ways in which dyad characteristics or interaction characteristics lead to differences in tie formation (Hallen, 2008; Kleinbaum, Stuart, & Tushman, 2013; McFarland, Moody, Diehl, Smith, & Thomas, 2014; Balagopal Vissa, 2011). This study

considers a new element, the perceptions of interactions. Consequently, this study is able to show that the formation of ties not only depends on characteristics of the dyad (Hallen & Eisenhardt, 2012) or the broader institutional environment within which the dyad interacts (Batjargal et al., 2013). It also depends on the way members of the dyad perceive the interactions they are engaging in, which can be influenced by the frames they are exposed to.

Second, this study also contributes to the study of entrepreneurship in developing markets. There is a growing body of research that aims to understand how entrepreneurs operating in institutionally challenging settings can build business relationships and increase their performance (Armanios et al., 2017; George, Kotha, Parikh, Alnuaimi, & Bahaj, 2016; Peng & Luo, 2000). This study adds to that research by suggesting that cooperative frames can help entrepreneurs increase their networks and their performance. Third, this study contributes to the study of the cultural dimensions that affect relationship formation within given social contexts. There is a long tradition of research on the importance of foci and various other spaces in bringing actors into contact and in creating networks (Feld, 1981). Yet, none of these studies have examined the elements of culture that are active within those spaces. Frames are a foundational cultural element (Lamont, Small, & Harding, 2010). This study shows that the way frames are active within spaces and organizational settings where individuals interact shapes the efficacy of the space in catalyzing new ties.

FORMING BUSINESS RELATIONSHIPS IN DEVELOPING MARKETS: THE CASE OF TOGO

Developing markets are defined as less institutionally and economically developed than emerging and developed markets (Marquis & Raynard, 2015). The World Bank classifies them

as low or lower-middle income (2018), where poverty and unemployment are usually prevalent (George, Corbishley, et al., 2016). In these contexts, formal market-supporting institutions are largely absent (Gao, Zuzul, Jones, & Khanna, 2017). Institutions such as regulatory agencies, courts, credit rating agencies, or banks are either non-existent or fail to function in a way that helps entrepreneurs (Khanna & Palepu, 2010). In addition, the majority of actors in these markets are small-scale businesses, including many self-employed entrepreneurs, rather than large corporations.

These conditions have important implications for how business relationships are formed. The lack of reliable, validated information and the lack of contract enforcement make it hard to approach other entrepreneurs. The lack of regulation and information vetting institutions make information about other entrepreneurs and their products scarce and unreliable in these environments (Geertz, 1978). Moreover, when entrepreneurs do find suitable partners, it is difficult to engage in exchanges, since formal institutions don't help enforce transactions or contracts (Greif, 1993). As a result, entrepreneurs are not protected from scams or theft when transacting with other market actors.

Togo is a prototypical developing market. A small West African country, it is consistently ranked among the least developed countries in the world and among the hardest places to do business (World Bank 2018). During my interviews with Togolese entrepreneurs, they often cited the difficulties involved in creating new business relationships. One young entrepreneur described the fear of intellectual theft:

> *If you have ideas, you are often fearful that your ideas are stolen, it creates concerns, which makes entrepreneurs here not able to reach out to people. There are*

even mentors that tell you not to talk to others about your business. All this slows down the evolution of your business.[1]

Another entrepreneur described the general climate of interactions with other entrepreneurs:

Today I am less honest than before because if you are honest you can't work, because others in front of you are not honest.

In summary, the lack of formal market-supporting institutions in developing markets such as Togo makes it so that entrepreneurs rarely have the opportunity to form new business relationships.

FRAMING INTERACTIONS

Frames are defined as scripts or "strips of action" that help individuals interpret or assign meaning to an event or an interaction (Goffman, 1974; Lamont et al., 2010; McFarland, 2004; McLean, 2007; Small, 2002). They help individuals understand what is going on in a specific interaction (Goffman, 1974). For entrepreneurs, prospective interactions with other entrepreneurs are complex and can be understood in many different ways (Paul Ingram & Yue, 2008). For each interaction, entrepreneurs need to understand their roles, the implicit hierarchy, potential risks and outcomes, as well as appropriate forms of speech, among other things (Diehl & McFarland, 2012; Gibbons & Henderson, 2012). Frames are scripts that help entrepreneurs arrive at an understanding on these issues as they regard a prospective interaction (Mears, 2015). In other words, frames help direct entrepreneurs towards a specific understanding or perception of a prospective interaction.

[1] For more quotes and details on qualitative methods please refer to Appendix D.

For a frame to be successful, it must perform three core tasks that ensure that the frame is internally coherent and will resonate with individuals (Snow & Benford, 1988). These core tasks are (1) drawing attention to interactions, (2) describing a particular type of interaction, and (3) motivating that type of interaction. Drawing attention to interactions involves making them salient and relevant to participants in the space. Describing a particular type of interaction involves working through the various ways that it might play out between two or more people. This helps individuals understand how to respond to different contingencies and scenarios. Finally, frames must motivate the interaction by conveying why the expected outcome of such interactions is positive. This involves outlining the potential beneficial outcomes of the interactions.

Frames can be deployed at multiple levels of analysis, including small-scale settings within which entrepreneurs come into contact. In these circumstances, prospective interactions can be framed by any individual who is able to reach or address all other participants. Typically, this condition is met by organizers or designers of a space, as well as authority figures, such as senior members or leaders.[2] The framing of interactions happens through discursive processes, such as presentations, public discussions, written handouts, or public statements that reach all participants. During these processes, actors deploy the frame to other participants in the setting, at which point it is discussed and negotiated. This process of deployment, discussion, and negotiation enables participants in a social setting to develop a shared understanding about the particular way of interacting within that setting.

[2] However, this does not preclude other participants in the space from framing interactions. For example, McFarland (2004) showed that under special circumstances of conflict, students, in addition to the teacher, can successfully frame interactions in the space of classrooms.

Cooperative Frames

I argue that frames that foster the formation of business relationships are *cooperative frames*: scripts that produce a shared understanding of interactions as involving the mutual exchange of help. They motivate helping other entrepreneurs by drawing attention to the potential benefits of such interactions. Moreover, cooperative frames encourage these interactions by establishing a shared understanding about them within the setting. This means that after cooperative frames are deployed, entrepreneurs know that other entrepreneurs in the same setting are aware of this specific way of interacting and that those entrepreneurs also know that the focal entrepreneur knows this. This enables entrepreneurs to have a common footing with other participants, which makes engaging in cooperative interactions easier.

Cooperative frames lead to the formation of more business relationships because they enable entrepreneurs to learn about each other. In particular, entrepreneurs learn about others' likely behavior in business relationships. This is valuable information for entrepreneurs because they gain insight into the underlying risk of such a relationship. Information about others' likely behavior in future business relationships is complex and exchanges of help shed light on this behavior. First, helping others enables participants to understand whether their exchange partner has a long- or short-term outlook on relationships (Axelrod, 1984). The less helpful interaction partners offer, the more short-term their outlook, and therefore the higher the risk in the relationship. Second, successfully engaging in mutual exchanges of help indicates that the exchange partner is potentially willing to share in the future benefits and risks of a collaborative relationship in an uncertain environment (Chung, Singh, & Lee, 2000; Li & Rowley, 2002). This helps entrepreneurs better assess the extent to which other entrepreneurs are invested in sharing the outcomes of the relationship and accepting potential losses. Third, initial helping exchanges

allow actors to develop confidence in each other without taking on too much risk. By progressively expanding the riskiness of exchanges in a staggered way, actors are able to build confidence in their exchange partner (Anthony, 2005; Blau, 1964; Larson, 1992) and more accurately evaluate the riskiness of a potential business relationships, weighing that against the potential benefits. Given all this information about the other actors' preferences and potential behavior in future interactions, the focal actor is better able to identify more individuals with whom to remain in touch. Therefore, I hypothesize the following:

Hypothesis 1: Entrepreneurs who have been exposed to cooperative frames will form more business relationships with other entrepreneurs than those who are not exposed to it.

Along with learning about other entrepreneurs' likely behavior in prospective business relationships, exchanges of help enable actors to evaluate other entrepreneurs' business skills, which include their knowledge of managerial best practices and their ability to implement them within the local business environment. Interactions between actors are frequently an opportunity to learn about these skills and identify individuals who possess those that the focal entrepreneur desires to learn (Balagopal Vissa, 2011, 2012). Gaining a grasp of other entrepreneurs' business skills can be complex and involve in-depth communication (Hansen, Podolny, & Pfeffer, 2001). Exchanges of help overcome this barrier.

During exchanges of help entrepreneurs give and receive advice about business issues. This, requires developing an ability to communicate about business matters, which involves using similar codes and business concepts (Kogut & Zander, 1992). Given the development of a baseline common understanding about interactions, the communication of advice enables

entrepreneurs to learn about their partner's business skills. If the advice was apt, coherent, and useful, the focal entrepreneur is able to assess which practices their discussion partner has successfully developed and the business problems that they have overcome. In contrast, if the focal entrepreneur receives advice that is unhelpful, they are likely to understand that they will not be able to learn much for this particular entrepreneur.

Based on this learning process entrepreneurs are able to form more business relationships that exhibit task complementarity, which means that the targeted entrepreneur in the relationship possesses at least one business skill that the focal entrepreneur desires to learn. Therefore, I hypothesize the following:

Hypothesis 2: Entrepreneurs who have been exposed to cooperative frames will form a greater proportion of business relationships that exhibit skill complementarity, than those who are not exposed to it.

METHODS

Setting

To study the effects of cooperative frames on the formation of relationships, I ran a field experiment with entrepreneurs in Lomé, the capital of Togo, which is one of the poorest countries in the world. In terms of per capita income at purchasing power parity Togo ranks 207th of 216 countries (World Bank 2016). Similarly, the UN's Human Development Index (2017) ranks Togo 166th of 188 countries. Over 54 percent of the population lives under the poverty line of $1.90 per day and the mean years of schooling for inhabitants is 4.7 years (UN

HDI 2017). According to the World Bank's "Doing Business Report" Togo is ranked 183rd out of 190 in terms of registering property and 145th out of 190 in enforcing contracts.

Even so, Lomé has a thriving entrepreneurial sector. Within Togo, Lomé is the largest city by a sizeable margin and the center of economic activity for the country. Moreover, Lomé is an important trading crossroads because it is located on the border with Ghana and has the only deep-sea port on the Gulf of Guinea. As a result, there are a plethora of markets in the city that host small businesses that provide a variety of basic services and small-scale production.

Field Experiment: "Marketing in Action"

To conduct the field experiment with entrepreneurs in Togo, I created an organization in Lomé that provided a business training program on marketing best practices. The organization was named "Marketing in Action" and was based in the suburb of Kegue. In the spring of 2017, Marketing in Action invited entrepreneurs to participate in a training program. The requirements for participation were only that the entrepreneur had been in operation for at least one year and they were based in the city of Lomé. In addition to this, participants were asked to pay a small participation fee (approximately 5 US dollars), which was reimbursed upon successful completion of the training.

Participants were solicited from throughout Lomé. The training program was advertised to the local business community through social media and a network of nonprofit organizations. In addition to advertising, a team of canvassers visited businesses in various commercial districts to invite the owners to participate. This process yielded 326 participants. All of these entrepreneurs were both owners and founders of their businesses.

Participants were split into 14 groups, each with 20-25 entrepreneurs. Program dates were filled one after the other on a sequential basis as individuals registered. Once the groups had been filled, 7 of the 14 groups were randomly assigned using a random number generator in excel to be the treatment groups, which were exposed to the cooperative frame during the training. The schedule of classes was then given to the two instructors, who presented the training to both the control and treatment groups. The timeline and implementation of the field experiment are detailed in the Appendix A.

The curriculum was adapted from the basic structure of business training programs carried out by the International Labor Organization (ILO) in developing countries (for a review see McKenzie and Woodruff 2018). Typically, these programs bring together business owners for short courses on basic management practices. Specifically, the training program that I put in place was based on an ILO training course on marketing for small business owners, called the "Start and Improve your Business Programme" (ILO 2018). The content covered seven basic marketing practices: doing market research, choice of location, setting a price, negotiating with suppliers, using advertising, evaluating advertising, and creating a brand. The training lasted for two full workdays, from 8am to 6pm each day. Classes met at the Marketing in Action offices in the suburb of Kegue.

The training program was taught by two instructors, who are local consultants with over 20 years of work experience teaching and helping entrepreneurs in Togo. These instructors had previously worked on similar training programs run by the World Bank in Togo. Together with the instructors, I modified the ILO teaching material to make it relevant to the local context. Each week two new groups would start, one on Monday and one on Wednesday. The instructors taught the classes together, following a strict schedule. There were catered coffee and lunch

breaks each day. The basic structure of the program was modified to include a networking event at the end. On the second day, after all the teaching material had been covered, participants were randomly assigned three discussion partners from within the same class. Participants were set up for private one-on-one conversations with each of their partners. These conversations lasted approximately 30-45 minutes each. During the conversations, participants were given writing materials to take notes on their conversations.

Treatment: Exposure to cooperative framing

As described in the theory section, framing of interactions involves deploying a specialized script that provides a footing for a particular type of interaction (McFarland, 2004). In the case of cooperative framing, the type of interaction that the script provides is geared towards the mutual exchange of help. Accordingly, I designed a cooperative frame and deployed it in the treatment groups.

The design of the cooperative frame was based on research on framing processes. In that literature, framing involves three core tasks: drawing attention to an interaction, describing it, and motivating it (Snow & Benford, 1988). Each task is an essential part of creating a coherent script for framing. Based on these core tasks, I constructed a frame for cooperative interactions between entrepreneurs as follows:

1. Drawing attention to interactions: The problem at hand is the entrepreneur's business and its success. This is what the entrepreneur is grappling with. Interactions with other entrepreneurs are an important part of this process.
2. Describing a course of action: The course of action is to think about cooperative interactions. These are interactions characterized by the mutual exchange of help, without specific expectations about returning favors. The first step in these

types of interactions is to give help and advice. These types of exchanges play out in a series of steps, which are described and examples are discussed.

3. Motivating cooperation: Conveying that helping others can lead to benefits in the long-run provides a motivation for the course of action. Although it's difficult to say when and how these returns may manifest, helping others is a low risk way of creating a connection to someone who may in the future be a source of useful information or knowledge.

In the field experiment, cooperative frames were deployed in the treatment groups through discursive processes, by a presentation and written text. In the presentation given by the instructors, interactions and relationships were framed as reciprocal. This presentation, which in total lasted approximately two hours, made up the core of the treatment. Its purpose was to immerse the students in the three tasks of drawing attention, description, and motivation, described above, in order to frame relationships as cooperative. In addition to the presentation, a short handout was provided, summarizing the key points. Once the presentation was complete, participants engaged in discussion with the instructors to consider the elements of cooperative interactions. The treatment was deployed at the beginning of the first day of the training program, before the materials related to the marketing practices were taught.

It is important to note that for frames to be properly deployed they need to be appropriately articulated (Small, 2002; Zald, 1996). Here, this means that the three component tasks need to be presented in a coherent manner so that they appear connected. If these tasks don't hang together in an aligned fashion, it is unlikely that the deployment of the frame will be effective. To ensure that this was the case, the instructors were extensively trained. First, they were given written material describing the various aspects of the frame and asked to study the

material in depth. Second, the instructors had a series of meetings with the author in which the meanings embedded in the frames were negotiated, reiterated, and elaborated. This helped the instructors gain a better and more precise understanding of the frame. Finally, the instructors were asked to construct their own articulation of the frame. This mattered greatly because in doing so they not only ensured that all the parts of the frame hung together in a sensible way, but also that the original written description of the frame was articulated in way that could be related to the participants. Before the start of the training programs, the instructors practiced presenting the frame to the author. After a series of refinements, the presentation was ready to be deployed to the treatment groups. The instructors who presented the treatment were the same individuals who taught the other material in the training program, which helped maintain the consistency of the teaching and the seamless integration of the framing into the program.

With this two-hour treatment, participants were given a model and script for interactions that incorporated reciprocity (see Table A2 in the Appendix for details). In doing this, the goal was to reframe how participants perceive potential interactions with each other. In other words, the treatment was aimed at framing interactions with other participating entrepreneurs as potentially cooperative. Although framing can be a complex process that evolves over many interactions, not just two hours, the *idea* of cooperative reciprocal relationships was a first step in doing the necessary relational work for these interactions.

Data: Surveys

The data for this study come from four surveys: (1) pre-treatment survey; (2) training program exit survey; (3) 6-weeks post-treatment survey; and (4) 6-months post-treatment survey. The baseline survey and the two post-treatment surveys shared the same format (surveys 1, 3, and 4). They collected information from all participant entrepreneurs about their management

practices, networking practices, expenditures, revenues, employees, and other demographic information. The two follow-up surveys conducted after the training program (surveys 3 and 4) contained additional questions on participants' contact with other participants in the training program. The exit survey (survey 2), asked all participants questions about their interactions during the two days of the program, their perceptions of other participants, as well as their comprehension of the material taught.

All surveys were administered by the same two instructors who taught the training program. During registration for the program, the instructors explained to participants about the follow-up survey process and that they themselves would be visiting them later to interview them. This helped build a sense of commitment and trust between the instructors and the participants.

Although 326 entrepreneurs showed up to the training program, there was some attrition in the sample. Of the 326 entrepreneurs, 316 completed the training program for which they had signed up. Five entrepreneurs were unable to attend the second day of the training due to unforeseen circumstances, such as a health condition or business emergency. Throughout the follow-up surveys, 15 more entrepreneurs fell out of the sample, leaving a total of 301 participants. Most of the entrepreneurs who dropped out at this stage were either away from Lomé for prolonged periods of time or had had to stay away from their work due to health issues, such as malaria.[3]

Dependent Variables

[3] To further check that attrition did not bias the randomization of the treatment, I run a logistic regression for receiving treatment (1 if in the treatment group, 0 otherwise) as a function of attrition (a binary indicator for not having completed the training program or the two follow-up surveys). In this regression, the coefficient of attrition was highly insignificant (*Coef* 0.620; *St. Err.* 0.564), indicating that attrition did not impact treatment.

Relationship formation. The first outcome of interest is how many relationships an entrepreneur formed with other program participants and whether entrepreneurs developed a bond of familiarity that involved maintaining contact over a period of time. The measure of relationship formation was created from the follow-up survey conducted 6 weeks after the training program. During the follow-up survey, each participant was asked whether they had spoken over the phone or met in person with any other participants from the same group since the training program and they were asked to name those individuals. This post-training contact was taken as an indication of a relationship having been formed between two participants. Using these data, I calculated the *number of relationships formed* for each participant. On average, entrepreneurs who participated in the training program formed about two new relationships and the total number of relationships formed ranged from none to eleven.

Skill complementarity. The second outcome of interest is the proportion of relationships in which the focal entrepreneur forms a relationship with another program participant who possesses a skill that the focal entrepreneur has expressed a desire to learn. The measure for skill complementarity is adapted from the dyad-level measure used by Vissa (2011) for task complementarity.

The information to construct this measure was collected during the pre-treatment and exit surveys. During the exit interview participants were asked to describe one issue in their business that they felt was the most pressing and that they wished to address. They were asked to select which category this specific issue fell into: (1) firm financing; (2) marketing; (3) stock and inventory management; (4) accounting and record keeping; (5) planning for the future. I used the list of business best practices (which cover all 5 areas of expertise) developed by the World Bank (McKenzie and Woodruff 2018). In parallel, based on their responses to the pre-treatment

survey, I coded each participant according to whether they used best practices in those five categories.

Using these two data points (i.e., the skill that each participant most desired to learn and each participant's portfolio of skills), I created an indicator of skill complementarity between each pair of participants i and j which was equal to '1' if participant j showed evidence of expertise in best practices in the domain that participant i indicated they wished to improve. Then, to bring this measure from the dyadic level to the individual level, I calculated the *proportion of relationships with skill complementarity* by taking the ratio of relationships characterized by skill complementarity to the total number of relationships formed after the training program. This measure ranged from 0 to 1, where 0 means that none of the connections formed exhibit skill complementarity and 1 means that all connections formed exhibit skill complementarity. On average, about a sixth of relationships formed captured by the data exhibited skill complementarity, with a standard deviation of about 35 percent.

Independent Variable

Treatment group. The main independent variable in the analyses is whether the individual participated in a group that received the *treatment*. Accordingly, I created a dummy variable equal to '1' for having received the treatment, and '0' for being in the control group.

Control Variables

Although the research design randomizes the exposure to cooperative frames, I also accounted for variation in the characteristics of entrepreneurs and their businesses. Specifically, I included in the regression models several conventional factors that may be related to the number of relationships formed and the target of those relationships.

First, I controlled for *Ewe ethnicity* (coded as 1 if the participant was Ewe and 0 otherwise), which is the majority ethnic group in Lomé. This was measured in the first post-treatment survey by asking participants what language they spoke at home, which is a common indicator of individuals' ethnic group (Yenkey, 2015). Being a member of the majority group could increase the number of potential interacting partners during the training program, thereby making it easier to form more relationships. I also controlled for whether participants had *completed primary school*, which was coded as 1 if the participant had completed at least primary school and 0 otherwise. Completion of primary school is a way of gauging whether the participant was functionally literate or not. Furthermore, entrepreneurs with less than a primary school education are unlikely to have facility with reading and writing, which is also an indicator of lower socio-economic status in Togolese society.

Furthermore, three control variables were included to capture various aspects of participants' businesses. First, I controlled for the size and age of the participant's business using the *number of employees*, measured by the log of total number of full-time employees working in the business, and *firm age*, measured by the number of years since the business has started producing and selling goods or services. These factors may affect relationship formation because entrepreneurs with larger and more established businesses tend to be higher status and therefore perceive fewer participants as attractive interaction partners (Ruef, Aldrich, & Carter, 2003).

I also controlled for the extent to which the participants used established best practices in their businesses. Using the management practices score for small businesses in developing economies created by McKenzie and Woodruff (McKenzie & Woodruff, 2018), I collected the relevant data in the pre-treatment survey through a series of 'yes' or 'no' questions about

whether participants' businesses use specific best practices from a list of 27 practices.[4] The *management practices score* of a participant's business is the proportion of the 27 questions to which the entrepreneur answered 'yes.' I controlled for this because participants with higher scores may be less motivated to create new relationships.

Furthermore, a series of ten dummy variables were created to capture the sector of economic activity that the participant's business engaged in. The ten sectors of activity were tailoring and shoemaking, sale of food or drink, jewelry-making and sales, information technology services, cosmetic and health services, construction, food processing and production, carpentry and metal works, rug manufacturing and weaving, and photo and video services.

Finally, I controlled for the training *class size*, which is equal to the number of entrepreneurs who participated in the same class with the focal entrepreneur. This was included to control for the number of prospective connections each actor had available, which could have a positive effect on the total number of relationships formed, but a negative effect on the level of familiarity with those individuals.

I report the summary statistics and bivariate zero-order correlations in Table 2.1. 66 percent of entrepreneurs were male. The majority of participants (78 percent) were members of the Ewe ethnic group and had completed primary school (74 percent). Entrepreneurs' businesses had on average 1 or 2 employees and had been in existence for 11 years. In general, larger businesses tended to be more profitable. Finally, in terms of best practices, entrepreneurs' businesses on average used about 60 percent of the practices defined by the World Bank for small businesses. The higher use of best practices was positively associated with firm size and age.

[4] These best practices include, for example, recording every purchase and sale, using advertising, having a monthly budget of expenses. See McKenzie and Woodruff (2017) for a complete list and details.

Table 2.1. Summary Statistics and Bivariate Zero-Order Correlations

		Mean	*S.D.*	*1*	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	*10*
1	Number of relationships formed	1.983	1.704										
2	Skill complementarity	0.169	0.373	0.104									
3	Risk perception	0.518	0.500	0.050	0.039								
4	Cooperative words	0.726	0.447	0.062	0.031	-0.037							
5	Exposure to cooperative frames	2.691	0.928	0.229	0.195	0.081	0.131						
6	Ewe ethnicity	0.781	0.414	0.188	0.024	-0.094	-0.008	0.015					
7	Completed primary school	0.748	0.435	-0.001	-0.050	0.239	-0.076	-0.107	-0.112				
8	Number of employees (log)	10.458	7.586	-0.105	0.021	0.123	-0.054	-0.023	-0.049	-0.047			
9	Firm age	1.701	3.361	0.104	0.135	-0.199	0.023	0.128	0.223	-0.400	0.084		
10	Management practices index	0.577	0.266	0.065	0.396	0.008	0.004	0.033	0.076	-0.126	0.298	0.261	
11	Class size	23.465	2.777	0.123	-0.020	0.036	0.084	0.397	0.057	-0.013	-0.152	0.020	-0.114

N=301

I would like to note that the sample of entrepreneurs that participated in the field experiment is made up of entrepreneurs who decided to respond to the call for participants and were present during the two-day training. As a result, the sample is not representative of all enterprises in Togo. Due to this self-selection into the training program, the treatment effect of the field experiment applies to firms interested in and participating in business training programs in Togo. Although this is a boundary condition for this study, motivated entrepreneurs are also theoretically important because they are likely to become dominant in their market segments.

Estimation

I hypothesized that exposure to cooperative frames increases the number of relationships formed by an entrepreneur (H1) and the proportion of relationships formed that exhibit skill complementarity (H2). In choosing the estimation method, I took into account that the corresponding dependent variables are a count variable and a ratio, which ranges from zero to one, respectively. To test hypothesis 1 I used a negative binomial model, which is appropriate for models where the dependent variable is a count with nonnegative values (Cameron & Trivedi, 2009). To test Hypothesis 2, I used a fractional logit regression, which is appropriate for models where the dependent variable is a fraction (Papke & Wooldridge, 2008). Supplementary analyses using Tobit models, instead of fractional logit, yielded qualitatively identical results. I included sector dummies to account for unobserved heterogeneity across sectors of activity and clustered standard errors by training groups (i.e., I let observations be independent across groups but not necessarily across the participants of the same group) in all models.

RESULTS

Balance and Manipulation Checks for the Field Experiment

To ensure that the randomization of the cooperative framing was successful, I checked that the control and treatment groups were balanced, that is, that the model covariates were similarly distributed within the two groups. To do this, I regressed the treatment variable on the pre-treatment entrepreneur and business characteristics, as well as the outcome variables. The regression results (reported in Appendix C) show no evidence of a biased distribution of covariates across the treatment and control groups.

I also conducted two manipulation checks to establish whether the treatment affected the theoretically relevant causal construct in the way it was intended (Gerber et al., 2014; Mutz & Pemantle, 2015). The purpose of the treatment in the field experiment was to frame interactions between entrepreneurs in the training program as mutual exchanges of help. Hence, if the treatment worked as theorized, participants in the treatment groups should be more likely to (1) perceive the intention of interactions to be collaboration, and (2) feel more secure and confident about interactions than participants in the control groups.

To capture these effects, in the exit survey at the end of the training program, I asked participants what they felt had been, in their opinion, the purpose of interactions during the training program. To answer the question, participants were asked to circle the five words they believed best represented the purpose among 24 words given to them on a sheet of paper, half of which represented concepts related to collaboration (such as help, trust) and the other half represented concepts related to competition (such as grow, dominate). At the mid-way point of the training program, I also asked participants whether they felt confident about interactions with others in the training program. By this point individuals had spent an entire day with other participants and had had a chance to interact. Participants had two options in choosing their response: “yes, I do” or “no, I feel uncertain about other participants.” The regression results

based on these two measures show that exposure to cooperative frames is positively associated with both the total number of cooperative words chosen by each participant and the likelihood of feeling secure in interactions (Table 2.2), indicating that the treatment indeed worked as theorized.

Table 2.2. Manipulation Checks: Poisson Regressions Explaining the Number of Cooperative Words Chosen and Logit Regressions Explaining the Likelihood of Feeling Secure in Interactions

	Cooperative words		Feeling secure	
	(1)	(2)	(3)	(4)
Exposure to cooperative frames		0.097*		0.794*
		(0.044)		(0.333)
Ewe ethnicity	-0.036	-0.032	-0.565	-0.547
	(0.061)	(0.058)	(0.300)	(0.299)
Completed primary school	-0.065	-0.053	0.993*	1.113*
	(0.043)	(0.041)	(0.464)	(0.461)
Number of employees (log)	-0.005	-0.004	0.160**	0.167**
	(0.008)	(0.007)	(0.054)	(0.056)
Firm age	0.002	0.001	-0.046*	-0.054**
	(0.004)	(0.004)	(0.020)	(0.021)
Management practices score	0.052	0.045	0.644	0.571
	(0.077)	(0.070)	(0.754)	(0.697)
Class size	0.015*	0.008	0.082	0.027
	(0.007)	(0.007)	(0.071)	(0.065)
Wald χ^2	485.550**	101.110**	469.080**	454.740**

N=301. Models 1 and 2 estimate the effect of cooperative frames on the number of cooperative words chosen to describe interactions during the training program and are estimating using a Poisson model. Models 3 and 4 estimate the effect of cooperative frames on a dummy for feeling secure in interactions during the training program or not, they are estimated using logit models. Sector dummies and a constant included in all models but not reported; robust errors clustered at the training group level in parentheses. ** p<0.01, * p<0.05

Cooperative Frames and Relationship Formation

Hypothesis 1 stated that entrepreneurs who received the treatment of cooperative framing will form more relationships with other participant entrepreneurs. The kernel density function for the total number of ties formed by entrepreneurs in the treatment and control groups, depicted in Figure 2.1, is in line with this hypothesis. The distribution for the treatment group (the dashed line) is noticeably to the right of the distribution for the control group (the solid line) in the figure, indicating that participants who received the treatment reported having formed more ties than their counterparts in the control group.

Figure 2.1. Kernel Density Function of Relationship Formation

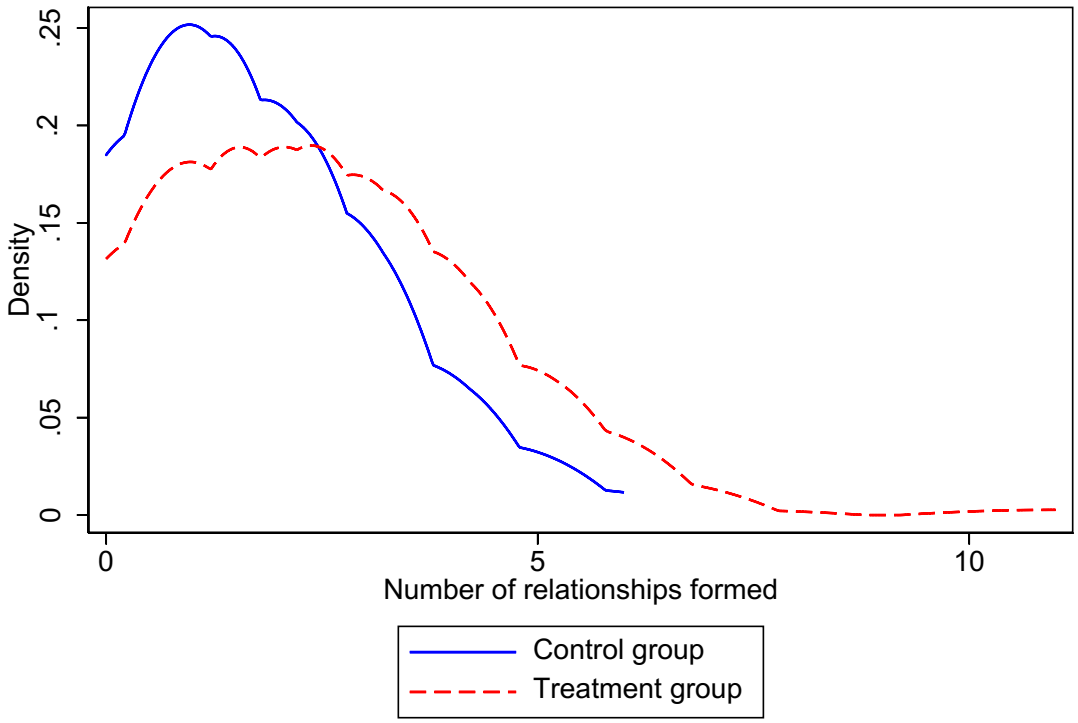


Table 2.3. Regressions Estimating the Number of Relationships Formed and the Proportion of Relationships that Exhibit Skill Complementarity

	Relationships formed		Skill complementarity	
	(1)	(2)	(3)	(4)
Exposure to cooperative frames		0.358*		1.746**
		(0.154)		(0.440)
Ewe ethnicity	0.371**	0.370**	-0.150	-0.164
	(0.114)	(0.114)	(0.505)	(0.519)
Completed primary school	0.051	0.081	0.004	0.250
	(0.145)	(0.139)	(0.565)	(0.577)
Number of employees (log)	-0.020	-0.022	-0.087	-0.106
	(0.020)	(0.020)	(0.045)	(0.056)
Firm age	0.006	0.004	0.016	-0.004
	(0.005)	(0.005)	(0.030)	(0.031)
Management practices score	0.219	0.207	6.306**	6.832**
	(0.254)	(0.254)	(1.187)	(1.181)
Class size	0.026	-0.002	-0.022	-0.143
	(0.022)	(0.025)	(0.098)	(0.084)
Wald χ^2	42.510**	56.830**	38.760**	46.840**

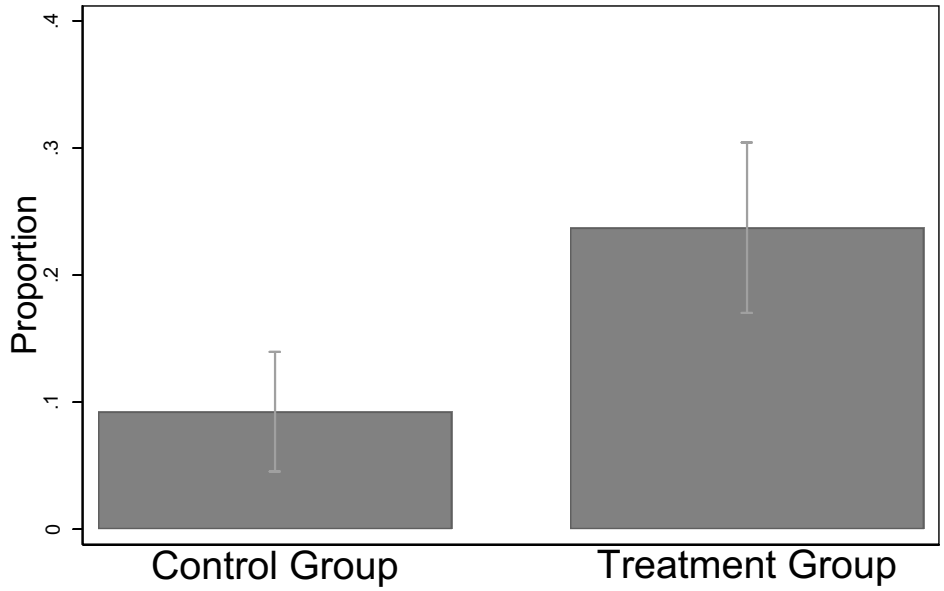
N=301. Models 1 and 2 estimate the effect of cooperative frames on the number of relationships formed using a negative binomial model. Models 2 and 3 estimate the proportion of ties formed that exhibit skill complementarity using a fractional logit model. Sector dummies and a constant included in all models but not reported; robust errors clustered at the training group level in parentheses. ** $p<0.01$, * $p<0.05$

The regression results reported in Table 2.3 support Hypothesis 1 as well: the coefficient of exposure to cooperative frames (treatment) is statistically significant and positive (Model 2), indicating that exposure to cooperative frames is positively associated with tie formation. In order to assess the substantive significance of the results, I calculated the predicted count of ties for participants in the control and treatment groups, while keeping the other covariates at their

means, because the coefficients are not intuitive in the negative binomial models. The predicted count of ties for participants in the control group is 1.5 compared to 2.25 in the treatment group. The difference between control and treatment group in the count of ties formed is approximately 0.7 and is statistically significant. Given that the average participant in the control group formed approximately 2 ties, the addition of (about) one more tie through the treatment represents a large increase in the outcomes from the treatment. Therefore, the results provide strong support to the prediction that entrepreneurs that have been exposed to cooperative frames will form more relationships with other entrepreneurs.

I further hypothesized that entrepreneurs exposed to cooperative frames will form a greater proportion of relationships that exhibit skill complementarity (Hypothesis 2). In line with this hypothesis, the proportion of relationships that exhibit skill complementarity (i.e., those in which the target possesses a skill that the focal entrepreneur has expressed that they wish to improve upon) were on average much higher for individuals in the treatment group than those in the control group (see Figure 2.2). The regression analyses support Hypothesis 2 as well: the coefficient for exposure to cooperative frames is positive and statistically significant on the proportion of ties exhibiting skill complementarity (Model 4). Based on the predictive margins for this model, receiving the treatment increases the proportion of their network that is task complementary by about 15 percent, when keeping other covariates constant at their means. Taken together, the results provide support for Hypothesis 2.

Figure 2.2. Proportion of Ties that Exhibit Skill Complementarity



Lastly, some brief observations are in order regarding the control variables. Ewe ethnicity had a positive effect on the number of relationships formed. This aligns with existing theory that members of the same ethnic group are more likely to trust each other and form relationships (Yenkey, 2015). Since the Ewe ethnic group is the majority in Lomé, it would be expected that they have the most facility in forming ties because most other participants would fall into the category of co-ethnics. In parallel, the management practices score is positively associated with the proportion of ties formed that exhibit skill complementarity. A higher management practices score could make it easier to target other individuals with good management skills, since the focal actor would also have more to offer in terms of teaching new skills. Furthermore, the number of employees was negatively associated (significant at 10-percent level) with the proportion of ties formed that exhibit skill complementarity. Larger firms, which tend to adopt

more best practices, are less likely to form ties with other business that have skills that they seek to learn because these are likely to be more difficult to find. Finally, some sector dummies (unreported) are significant, highlighting the differences across sectors of the economy.

Ethnic and Geographic Concentration of Relationships Formed

According to the theory, when entrepreneurs are exposed to cooperative frames they are more likely to form relationships based on the information they learned about other entrepreneurs through their attempts to help each other. If this is true, we would expect that entrepreneurs form relationships beyond the confines of their ethnicity and geographic location.

To test this, I calculated the ethnic and geographic concentration of the relationships formed by the entrepreneurs. Specifically, using the pre-treatment data regarding each entrepreneur's ethnicity and the neighborhood in which their business is located, I calculated the ethnic and geographic concentration of the relationships formed using Herfindahl indexes.[5] Table 2.4 presents the coefficient estimates for fractional logit regressions of the ethnic and geographic concentration indices on the treatment and control variables.

[5] The index ranges between a minimum of 1/N, where N is the number of possible categories represented in the sample, and 1. The minimum value indicates that all relationships were equally distributed among the categories of ethnicities and neighborhoods, and the maximum value ('1') indicates that all relationships formed were concentrated in one ethnicity or one neighborhood. In the case of ethnicities, there are 5 possible cases making the minimum value of the index 0.20 and in the case of neighborhoods there are 59 different cases making the minimum value of the index approximately 0.02.

Table 2.4. Fractional Logit Models Explaining Ethnic and Neighborhood Concentration

	Ethnic concentration		Neighborhood concentration	
	(1)	(2)	(3)	(4)
Exposure to cooperative frames		-0.864**		-0.775**
		(0.175)		(0.297)
Ewe ethnicity	-0.029	-0.046	-0.389*	-0.412*
	(0.246)	(0.259)	(0.166)	(0.166)
Completed primary school	-0.554**	-0.670**	0.039	-0.029
	(0.190)	(0.213)	(0.195)	(0.171)
Number of employees (log)	0.093*	0.101*	0.050	0.054
	(0.038)	(0.042)	(0.028)	(0.028)
Firm age	-0.002	0.005	-0.004	0.001
	(0.011)	(0.010)	(0.011)	(0.012)
Management practices score	-0.192	-0.196	-0.596	-0.592
	(0.457)	(0.438)	(0.491)	(0.451)
Class size	-0.010	0.058	-0.046	0.011
	(0.051)	(0.042)	(0.048)	(0.048)
Wald χ^2	433.920**	231.890**	2184.890**	7127.070**

N=301. Models 1 and 2 estimate the effect of cooperative frames on the concentration of relationships formed among ethnic groups, while Models 3 and 4 estimate the effect on concentration within neighborhoods. All models are estimated using fractional logits. Sector dummies and a constant included in all models but not reported; robust errors clustered at the training group level in parentheses. ** $p<0.01$, * $p<0.05$

In these regressions, the coefficient for having been exposed to the cooperative frames is negatively and significantly associated with both the ethnic and geographic concentration of the relationships formed (Models 3 and 4, respectively). The results thus provide additional support for the theory that cooperative frames help entrepreneurs form relationships based on their

learning about other entrepreneurs, rather than ascribed characteristics such as ethnicity and geographic proximity, which may be a source of homophily.

Robustness Checks

I also conducted a series of robustness checks to validate the results. To start with, I confirmed that the measure of business relationship formation accurately captured the outcome of interest, namely entrepreneurs creating a relationship characterized by the exchange of advice and information related to their businesses. Although there may be concern that the measure of relationship formation may be capturing interactions unrelated to business, in developing and emerging markets communication about business matters often occurs within relatively informal settings. As such, an indication of communication by phone or a meeting in person tend to be strong indicators of a business relationship.

To further corroborate this, I provide two additional pieces of evidence. First, I show that cooperative frames led to more exchanges of business advice and more communication related to business during the training program. To measure the exchange of advice, I asked participants to indicate on a roster in the exit survey (survey 2) all the individuals from whom they had received advice about their business. From the response to the exit survey, I created a dyadic-level indicator of whether a mutual exchange of advice occurred within a dyad. Then, for each individual I counted the total number of participants with whom they had had a mutual exchange of business advice. This variable is the dependent variable in Models 1 and 2 of Table 2.5. The coefficient estimates indicate that exposure to cooperative frames led to a larger number of exchanges of business advice with other participants.

Second, I show that cooperative frames increased business-related communication. Participants were successively paired with three randomly selected discussion partners during the

networking event. At the end of the event, participants' written notes were scanned and the words written were counted. The average number of words that each participant wrote during their three discussions was used as a measure of the extent of communication. Models 3 and 4 of Table 2.5 show the coefficients from a negative binomial model estimating the effect of receiving the treatment on the average number of words written. The results indicate that exposure to cooperative frames led to increases in the amount of business-related communication between entrepreneurs. These two tests lend additional support to the theory that interactions between entrepreneurs both during and after the program were related to business matters.

Third, I replicate all results using a dyadic data structure. By modeling the formation of relationships at the dyad level I am able to control for gender, ethnicity, neighborhood, and religious homophily, in addition to the factors that are controlled for in the reported regressions. I am also able to estimate standard errors that are clustered at the dyad, ego, and alter level (Kleinbaum et al., 2013). In these regressions, the indicators for ethnicity and neighborhood homophily are statistically significant and positive, indicating that on average members of the same ethnic group and residents of the same neighborhood are more likely to form a relationship. Importantly, even with the inclusion of controls for homophily, the treatment (i.e., exposure to cooperative frames) still had a positive and statistically significant effect on relationship formation in these regressions as predicted in hypotheses 1 and 2.

Finally, I re-estimate all models including additional controls for gender, being formally registered, having received a loan, and networking practices, inserting them one-by-one and in combinations. The inclusion of these variables, none of which were significant, did not change the results.

Table 2.5. Negative Binomial Regressions Explaining the Number of Advice Exchanges with other Entrepreneurs and the Average Number of Words Written during Discussions

	Advice exchanges with other entrepreneurs		Average words written	
	(1)	(2)	(3)	(4)
Exposure to cooperative frames		0.584**		1.001**
		(0.113)		(0.114)
Ewe ethnicity	0.082	0.109	0.031	0.064
	(0.118)	(0.110)	(0.105)	(0.105)
Completed primary school	-0.126	-0.068	-0.004	0.124
	(0.120)	(0.115)	(0.115)	(0.112)
Number of employees (log)	0.016	0.012	-0.007	-0.002
	(0.022)	(0.020)	(0.019)	(0.019)
Firm age	0.001	-0.004	0.005	-0.006
	(0.007)	(0.007)	(0.007)	(0.007)
Management practices score	0.501*	0.489*	0.035	-0.035
	(0.212)	(0.207)	(0.197)	(0.193)
Class size	0.034*	-0.017	0.114**	0.045*
	(0.016)	(0.020)	(0.020)	(0.019)
Wald χ^2	35.900**	67.670**	59.610**	126.520**

N=301. Models 1 and 2 estimate the effect of cooperative frames on the number of mutual exchanges of business advice with other entrepreneurs, while models 3 and 4 estimate the effect on the average number of words written by entrepreneurs during the networking discussions with three other participants. All models are estimated using negative binomial. Sector dummies and a constant included in all models but not reported; robust errors clustered at the training group level in parentheses. ** p<0.01, * p<0.05

COOPERATIVE FRAMES AND BUSINESS PERFORMANCE

The theory and empirical evidence presented so far indicates that exposure to cooperative frames increases the number of relationships formed by an entrepreneur and the proportion of relationships formed that exhibit skill complementarity. Given that the quantity and quality of an entrepreneur's business relationships are positively associated with the ability to find out about

market opportunities, learn complex skills, and to access resources (Chatterji et al., 2018; Kim & Aldrich, 2005; Stuart & Sorenson, 2007), it stands to reason that exposure to cooperative frames is likely to lead to an increase in the performance of entrepreneurs' businesses.

To further validate the theory developed in this study, I exploited the available data and examined whether exposure to cooperative frames is indeed associated with an increase in business performance. The measure for business performance comes from two surveys: a pre-treatment survey at the beginning of the training and a post-treatment survey 6 months after the training, asking the participants, among other questions, about their businesses' profits in the previous month. The amount of monthly profits is a standard measure of performance for small businesses in developing economies (Atkin, Khandelwal, & Osman, 2017; S. De Mel, D. J. McKenzie, & C. Woodruff, 2009b). Using a difference-in-differences approach, Table 2.6 shows the results for OLS regressions explaining the logged monthly profits, with firm fixed effects (Model 1) and without them (Model 2).

Table 2.6. Difference-in-differences Models Estimating Monthly Profits

	OLS	Fixed Effects
	(1)	(2)
Exposure to cooperative frames X Post treatment period	0.316*	0.325*
	(0.137)	(0.131)
Post treatment period	0.079	0.119
	(0.094)	(0.093)
Exposure to cooperative frames	-0.092	
	(0.122)	
Ewe ethnicity	0.123	
	(0.128)	
Completed primary school	0.106	
	(0.118)	
Full-time employees (log)	0.097**	
	(0.021)	
Firm age	0.016*	
	(0.007)	
Management practices score	0.485*	
	(0.190)	
Class size	0.006	
	(0.019)	
F-statistic	8.660**	12.250**

N=533; the post-treatment period refers to the timing of the second follow-up survey, six months after the training program; Model 2 includes entrepreneur-level fixed effects; sector dummies and a constant included in all models but not reported; robust errors clustered at the training group level in parentheses. ** $p<0.01$, * $p<0.05$

The results of these analyses are consistent with my theory: the coefficients on the treatment group (i.e., those that are exposed to cooperative framing during the training program) in the post-treatment period (i.e., 6 months after the training) are positive and significant, as expected. Exposure to cooperative frames is positively associated with subsequent business performance.

DISCUSSION AND CONCLUSIONS

This study is concerned with the role of framing interactions in the formation of business relationships by entrepreneurs in developing markets. In particular, this study examines the case of cooperative framing and has shown that when entrepreneurs are exposed to it within a social setting, cooperative framing leads to the formation of more ties and that these ties exhibit more skill complementarity. In the supplementary analyses, I also provided evidence showing a positive and statistically significant relationship between exposure to cooperative frames and subsequent business performance.

Contributions

This study contributes to the literature on the formation of business relationships by considering the role of initial perceptions. In particular, it has shown that the way prospective interactions are framed affects patterns of interaction and communication, which in turn affect the formation of relationships. Existing research has focused primarily on the characteristics of dyads and their interactions to explain the formation of business relationships. This research has shown that when actors in a dyad are similar in terms of age, gender, ethnicity, education, and work, they are more likely to form a relationship due to homophilic preferences. Similarly, research has also shown that when actors interact more frequently (Lazarsfeld & Merton, 1954) and while doing a common activity (Feld, 1981) they are more likely to form a relationship. A large amount of research has verified and expanded these approaches to explaining the formation of business relationships (see for example Dahlander and McFarland (2013); Paul Ingram and Morris (2007); Kleinbaum et al. (2013); Kossinets and Watts (2009)).

The present study adds to this literature by considering how interactions are initially perceived by the individuals interacting. In particular, this study considers how, within certain social settings, interactions can be framed to affect patterns of interactions. By elaborating on

this factor, this study helps to broaden the scope of research on business relationship formation to include the role of initial perceptions and framing processes. Framing can affect individuals' perceptions and cognitions about interactions and communication with consequences on the rate at which relationships are formed and whether those relationships are skill complementary or not.

In addition to the literature on relationship formation, this study also contributes to the study of frames. The contribution to this literature is twofold. First, it elaborates on the framing of interactions. Although a large amount of research in social movements has described and analyzed collective action frames, far less research has considered the case of framing interactions, which are frames that help actors assign a meaning to interactions. As such, frames are at the foundation of patterns of interaction between actors and particularly early interactions. Existing research shows that when actors begin constructing a relationship or engaging in an exchange, they must arrive at a mutually accepted definition and understanding of what the relationship means and, as a consequence, what is appropriate within it. Frames play a critical role in helping to signal what the relationship or prospective relationship is about. Except for the work of McLean (1998), Tannen and Wallat (1987) and McFarland (2003), very little work has considered framing of interactions and its consequences. These studies have shown that relationships are framed, that these frames convey meanings, and that the meanings can help strengthen or weaken a relationship. But, within this literature, there aren't any studies that have considered the possibility that framing processes activated by a third party in the same space could influence the formation of a tie between two actors.

Second, this study introduces the specific case of cooperative frames. To the best of my knowledge, there doesn't exist any research on the case of cooperative frames. This particular

case matters because it touches on issues related to social capital formation and social exchange. In particular, the act of providing help in an exchange is related to reciprocity exchanges (Molm, 2010), which in turn are foundational to the creation of social capital (Portes, 1998). Given that this study has shown that cooperative frames direct individuals in exchanges of help, cooperative frames may also be related to creating a foundation for the formation of social capital.

Finally, this study contributes to the study of entrepreneurship in developing markets. Existing research on entrepreneurs in developing markets has emphasized the importance of business practices (Bloom & Van Reenen, 2010; McKenzie & Woodruff, 2018). Some researchers have begun to note the importance of relationships for entrepreneurs in developing markets (Acquaah, 2012; Armanios et al., 2017; George, Kotha, et al., 2016). However, these studies are limited in their ability to shed light on the dynamics involved in the formation of relationships in these contexts. In particular, these studies do not examine how interactions between entrepreneurs in developing markets are likely to be impeded by the institutional environment. More importantly, these studies do not provide any guidance as to how to overcome these obstacles and to foster relationship formation for entrepreneurs. This study helps fill that gap by showing that cooperative frames can help entrepreneurs form relationships within specific settings, thus overcoming many barriers to relationship formation that are endemic to developing markets.

Boundary Conditions and Future Research Directions

First, the study was set in Togo, an extremely underdeveloped institutional environment where there are few safeguards against exploitation in market transactions and it is difficult for entrepreneurs to form ties to actors with whom they do not share family, ethnic or neighborhood ties. As a result, it is possible that creating a setting characterized by cooperative frames had a

measurable impact because it offered an alternative. If this is true, cooperative frames may have less of an effect on entrepreneurs operating in highly developed institutional environments. In these types of contexts, where entrepreneurs have more legal recourse, it may be easier to elicit exchanges without framing processes. Nevertheless, uncertainty is at the basis of much entrepreneurial activity (Sorenson & Stuart, 2008) and therefore there is a good chance that in many environments cooperative frames will have an effect.

Second, in the design for this study, the exposure to cooperative framing was brief and the opportunities for interactions were limited. Although the treatment was limited, results did show statistically significant changes in networks and performance. Nevertheless, it is unclear whether a longer and more thorough exposure to the frame would alter the results. On the one hand, it is possible that actors would create more ties and that these ties would be more durable over time. This, in turn, could increase their performance even more. Similarly, it is possible that interactions must take place within the original setting in order for the relationships to remain active. Furthermore, there is also a possibility that creating more connections could lead to negative social capital, whereby successful entrepreneurs are burdened by the connections and the favors that are asked of them.

Third, the exposure to cooperative frames took place within the context of a business training program and this could have implications about the reproducibility of the effect in other types of spaces. It is possible that the cooperative frame was particularly salient due to the educational setting in which it was deployed. It is unclear how feasible or successful the deployment might be in a context that does not include an educational component. For example, would cooperative framing work at a meet up group for entrepreneurs?

Finally, this study examined the specific case of entrepreneurs. Entrepreneurs have a strong incentive to create new ties and search for new information. As a result, it is possible that the treatment was very appropriate for entrepreneurs, but might be less so for other types of actors. For example, would cooperative frames resonate with corporate executives? In theory, in any setting in which actors have the potential to mutually help each other, cooperative framing should lead to the formation of social capital. However, due to the emphasis of this study on entrepreneurs, it remains to be tested whether this dynamic replicates for other types of market actors and whether there are differences in the effects.

Conclusion

Entrepreneurs depend on their social networks for access to information and resources. Forming business relationships with individuals who provide access to valuable information is difficult, particularly in the context of developing markets. Although there is considerable research on the dyadic-level mechanisms that lead to these types of ties, this study attempts to bring a different approach by considering the role of frames.

In particular, this study has focused on cooperative frames. I argue that when entrepreneurs in a specific setting are exposed to cooperative frames, this should lead to interactions that enable them to learn about others. This has two effects. First, it allows entrepreneurs to form more business relationships. Second, it allows entrepreneurs to identify those individuals who will potentially be most useful to them – those that exhibit the most skill complementarity with them. Analyses of data from the field experiment with entrepreneurs in Togo provide supportive evidence for these claims. In addition, the results also show that entrepreneurs who were exposed to the cooperative frames experienced a significant boost in the performance of their businesses.

This study sheds light on the importance of framing processes that guide entrepreneurs' interactions. When frames are harnessed to change the perceptions of entrepreneurs towards cooperation, they have the power to catalyze the formation of relationships among entrepreneurs even within the most detrimental institutional environments.

Chapter 3.

Entrepreneur social resilience: How peer entrepreneurs and local communities improve entrepreneur performance during exposure to political violence

Abstract

In this study, I explore how exposure to political violence affects the performance of entrepreneurs' businesses and why some entrepreneurs are able to perform better than others when exposed. I argue that exposure to shocks of political violence leads to physical damages and the loss of clients, which significantly harm entrepreneurs' business performance. I further argue that entrepreneurs with social resilience – which I define as the ability to draw on social sources of support during shocks, notably peer entrepreneurs and the local community – suffer fewer performance losses under those circumstances. I test this theory using data on a sudden surge of violent political protests in Togo during 2017-2018. By combining these data with a longitudinal survey of entrepreneurs, before and after the protests, I show that exposure to political violence led to losses of approximately 14 percent in business profits, but that these losses were largely mitigated when entrepreneurs had relationships to peer entrepreneurs and were engaged in their local communities.

Entrepreneurs frequently work in unstable environments and are exposed to political violence. Exposure to political violence is a shocking event, which is defined as witnessing or being victimized by the physical forces being deployed between political adversaries (della Porta, 2006; Tilly, 2003). These shocks, or "jolts," of political violence often manifest in sudden and unpredictable ways that disrupt markets and sometimes paralyze economies (A. D. Meyer, Gaba, & Colwell, 2005; Sine & David, 2003). Distressingly, the incidence of political violence has been increasing globally over the past decade (IEP, 2019) and much of it has been concentrated in developing countries, where entrepreneurs are particularly vulnerable (Bodea & Elbadawi, 2008).

Given this, how can entrepreneurs reduce their vulnerability to shocks of political violence? Recent work has shown that entrepreneurs and businesses operating in unstable political environments are more likely to fail (Ault & Spicer, 2014; Blumenstock et al., 2018; Dai, Eden, & Beamish, 2017; Hiatt, Carlos, & Sine, 2018). Beyond survival, however, we know little about the dynamics of entrepreneurs' performance when exposed to shocks of violence. In developing countries, a variety of factors influence entrepreneur performance, such as managerial capacity (Anderson, Chandy, & Zia, 2018) and social networks (Acquaah, 2012; Chatterji et al., 2018), but none of these relate to performance under conditions of exposure to political violence. As a result, entrepreneurs' performance and the factors that improve their performance when exposed to political violence remain largely an open question.

In order to explore this issue, I study one type of political violence that is prevalent, particularly in developing countries: violent political protests. Recent prominent examples of violent political protests include the 2018 "Yellow Vests" protests in Paris (New York Times, 2019), the anti-government protests in Ethiopia of 2016 that caused over 600 deaths (BBC,

2017), and the Gezi Park protests in Turkey of 2013 that paralyzed the center of Istanbul for months (New York Times, 2013). Violence during political protests often arises when protesters clash with police or military forces and can take many different forms, including barricading, vandalism, firing rubber bullets, water canons, and teargas among others. Although the violence is often not overtly aimed at businesses, it frequently takes place in proximity to them and has the potential to be a shock to entrepreneurs.

Building on research on social movements (G. F. Davis, McAdam, Scott, & Zald, 2005), I argue that exposure to shocks of violent political protests, defined as being physically proximate to the deployment of force by political actors during protests, has devastating effects on entrepreneurs' business performance. Exposure to violent protests damages entrepreneurs' businesses through looting, vandalism, and misdirected force, and by leading to the loss of clients who fear returning to entrepreneurs' business locations. As a result, entrepreneurs' businesses tend to suffer collateral damage from violent protests when located in proximity.

However, some entrepreneurs perform better than others during shocks of political violence. I argue that entrepreneurs with social resilience – which I define as the support that entrepreneurs receive from social sources outside their organization during shocks – can buffer the negative effects of exposure to violence. In the case of entrepreneurs in developing countries there are two particularly important sources of social resilience, peer entrepreneurs and their local communities. Entrepreneurs with more relationships to peer entrepreneurs will be better able to get advice on business practices to cope with the violence and information about resources during the crisis. Similarly, entrepreneurs who are engaged in their local geographic communities, through active participation in local civic associations, will be more likely to have more trusting relationships with members of their local community, who may protect them

during the violence and support their recovery in the aftermath of the violence. For these reasons, entrepreneurs with more peer relationships and more local community engagement, which I collectively label as entrepreneur social resilience, will perform better during shocks of violence.

In this paper, I test these predictions about the effects of political violence on entrepreneurs' business performance using the context of a sudden surge in violent political protests in Togo, a small West African country. During 2017 and 2018 a series of anti-government protests swept the capital of Togo, Lomé, demanding the reinstatement of presidential term limits. Over the course of nine months there were 42 large-scale protests in Lomé, ranging in size from several thousand participants to several hundreds of thousands. Although the majority of these protests were peaceful, several became violent when military and armed police forces intervened to suppress them.

Based on the rapid escalation of violence and its micro-geographic distribution, I was able to use data on these unfortunate events to implement a difference-in-differences approach to causally estimate the effects of exposure to political violence on entrepreneur profits. To identify the timing and location of all events of violence I coded in detail news coverage of the protests. I then combined these data with a detailed survey of 333 entrepreneurs in Lomé, covering the period before and after the surge in protests. I find that, on average, entrepreneurs whose businesses are in the vicinity of violent protests experience a 14 percent decrease in monthly profits. These losses are, however, considerably mitigated when entrepreneurs have social resilience in the form of peer entrepreneur relationships and community engagement. Specifically, having advice relationships with peers can almost completely eliminate losses from exposure to protests. Results from supplementary analyses indicates that this resilience is at least in part due to advice about better management practices that entrepreneurs receive from their

peers. Similarly, engagement in their local community lowers losses by almost a third on average. Supplementary analyses indicate that entrepreneurs who engage with their local communities trust community members more, which may generate support during shocks. These results, therefore, confirm that although the losses from exposure to political violence can be substantial, entrepreneur social resilience can help significantly mitigate those losses.

This study makes three main contributions. First, it contributes to the growing literature on strategy in politically unstable and violent contexts, which has documented the pervasive risks of doing business in places with high political turnover, armed conflicts, and terrorism (Amodio & Di Maio, 2017; Henisz, Mansfield, & Von Glinow, 2010; Hiatt & Sine, 2014; Hjort, 2014; Oh & Oetzel, 2017). This paper focuses on entrepreneurs' business performance in these contexts and the kinds of strategies that can maximize their performance during exposure to political violence. Second, this study contributes to the literature on resilience. Research on strategy in emerging markets and developing countries has increasingly emphasized the importance of resilience (Castellacci, 2015; Gao et al., 2017). This study proposes a new concept - that of entrepreneur social resilience - which emphasizes external, social sources of support for entrepreneurs, rather than internal sources of support, such as slack resources or prior experience (Wan & Yiu, 2009). Finally, this study's contributions add to research on entrepreneurship in emerging markets and developing countries (Dutt et al., 2016; Hoskisson, Eden, Lau, & Wright, 2000; Marquis & Raynard, 2015). Entrepreneurship in these contexts entails unique challenges, which researchers have begun to explore (George, Corbishley, et al., 2016). This study innovates by linking direct exposure to one aspect of the political landscape to the performance of entrepreneurs' businesses.

POLITICAL VIOLENCE AND VIOLENT PROTESTS

Political violence is defined as confrontations between political adversaries that involve physical force and cause physical damages in the pursuit of political aims (della Porta, 2006; White, 1993). This definition includes a range of violent collective action phenomena, including violent protests, attacks on property, seizure of places or people, terrorist attacks, riots, and armed conflict (Nassauer, 2018; Porta & Tarrow, 1986). These acts of political violence can be spontaneous or organized, as well as targeted or diffuse (D. S. Meyer, 2004). Although political violence occurs globally, it is disproportionately concentrated in developing countries around the world with weaker political institutions (Besley & Persson, 2011).

Among the various forms of political violence, violent protests stand out because they include a wide array of violent acts and because of their prevalence (Soule & Davenport, 2009). In terms of acts, violent protests can include throwing stones, firing teargas, erecting barricades, and storming buildings. As a result, violent protests encapsulate many types of conflict that are part of political violence. Additionally, violence in protests occurs internationally and its incidence has been increasing over the past decade (Ortiz, Burke, Berrada, & Cortés, 2013). In 2018 there were over 36,000 protests across 75 countries, of which about 25 percent were violent and which resulted in at least 475 documented deaths (ACLED, 2019).

Research in political science and sociology has explored violence in protests. The main focus of this research has been on the effects of violence on social movement success. The evidence on violence's influence has been mixed (e.g. Giugni (1998); Frey, Dietz, and Kalof (1992)). Beyond this, there has been little research to date on how violent protests affect entrepreneurs or other bystanders and the possible collateral damage that they may cause.

EXPOSURE TO VIOLENT PROTESTS AND ENTREPRENEURS' BUSINESS PERFORMANCE

Protests can become violent for at least two reasons, because protesters choose to employ violent tactics or because state actors intervene with violence to repress protesters. Although all protests aim to create some degree of disruption in order to draw attention to their issues, some protesters may draw on tactics that are expressly violent, such as rioting, looting, destruction of public or private property, violence against civilians or the authorities (Cress & Snow, 2000; McAdam & Su, 2002). When these violent tactics are deployed, their aim is typically to disrupt and create leverage for protesters (McAdam, 1982), but the disruption may not always be contained and it can devolve into significant expressions of violence beyond the original protesters' strategies (Piven & Cloward, 1977).

In addition to protester tactics, violence can also result from the intervention of state forces (della Porta, 2013). State forces such as the police and the military may be deployed to stop, redirect, disperse, or arrest protesters (Hess & Martin, 2006). In these cases violence can occur as state forces pursue protesters, employing rubber or conventional bullets, water canons, tear gas, batons, or other weapons. These kinds of conflicts can turn particularly violent, creating war-like situations that can rapidly diffuse throughout urban neighborhoods (Rasler, 1996).

When violence breaks out in protests, entrepreneurs' businesses may be exposed to the violence and experience it as a shock. Exposure to violence encompasses witnessing acts of violence or being the target of the violence (Sharkey, 2018). Exposure to violence during protests is a form of shock, because shocks to organizations are defined as an event that is outside of entrepreneurs' normal experience and operations, and that is disruptive, unexpected, and evolves

in unpredictable ways (Chakrabarti, 2015; A. D. Meyer, Brooks, & Goes, 1990). These shocks of violence can lead to a variety of losses for entrepreneurs.

First, they may suffer losses from damages to their property. As described above, violence during protests can be particularly destructive and spread beyond its originally targeted scope (Myers, 2000; Nassauer, 2016). The violence can therefore lead to attacks on entrepreneurs' physical establishments, looting, and theft (Luders, 2006). These types of damages can happen as protesters throw rocks, steal materials for barricades, start fires, as well as when state forces respond with teargas, water canons, and rubber bullets (McAdam & Su, 2002; Nassauer, 2019). Exposure to violence during protests can lead to loss of profits, therefore, from the significant damages caused and the expenses needed to repair them.

Entrepreneurs can also suffer performance drops from losing clients as a result of the violence. The loss of clients can occur from the disruption of normal market activity. The destruction of public property, the detritus from confrontations and blockades, and the sheer amount of time during which confrontations may last can cause entrepreneurs to lose days of work and prevent clients from reaching them. In addition, violence can also lead to the stigmatization of a geographic area. Hearing about or witnessing violence can deeply traumatize individuals and change their perceptions of those locations (Morenoff & Sampson, 1997; Sampson & Raudenbush, 2004). These changes in perceptions can have lasting effects on individuals, even though the violence may be temporary, and can lead to people avoiding an area for prolonged periods of time (Sampson, 2011), Therefore, violent protests may cause people to fear certain places and perceive them as disorderly and dangerous (Myers & Caniglia, 2004), leading to the loss of clients for entrepreneurs located there. The loss of workdays and the loss clients due to fear can lead to drops in sales and loss of profits.

For the above reasons, the more entrepreneurs are exposed to violence during protests the more they will experience losses in terms of the performance of their businesses, manifesting as a loss of profits. I therefore hypothesize that:

Hypothesis 1: Exposure to violent political protests decreases business profits.

Entrepreneur social resilience

What can entrepreneurs do to mitigate losses from exposure to political violence? Research on business strategy in emerging markets and developing countries has increasingly drawn attention to the issue of resilience (Dai et al., 2017; Gao et al., 2017), which is defined as the ability of a business or entrepreneur to withstand disruptive shocks (Ortiz-de-Mandojana & Bansal, 2016; Williams, Gruber, Sutcliffe, Shepherd, & Zhao, 2017). Although research on resilience in emerging markets is relatively new, there is significant evidence that businesses can build resilience in a variety of ways that are internal to the organization. In particular, businesses with slack resources tend to be more resilient (A. D. Meyer, 1982), as are businesses that have experience with past shocks (Oh & Oetzel, 2017) or have developed the ability to strategically adapt to shocks (Haveman, 1992).

Although these factors are powerful sources of resilience, they may not apply to entrepreneurs in developing countries. These entrepreneurs are rarely able to accumulate slack resources, nor are they likely to possess the resources to adapt in time for each shock (Mair & Marti, 2009; Schoar, 2010). Therefore, I argue that entrepreneurs in developing countries must seek resilience from other, external, sources.

Research on entrepreneurship provides evidence that there may exist social sources of support that can help build resilience. In particular, this research emphasizes the role of peer

entrepreneurs (Chatterji et al., 2018; Small, 2017; Stephens & Long, 2000) and the role of strong relationships to the local community (D. P. Aldrich & Meyer, 2015). I argue that these two sources of social support can help entrepreneurs in developing countries build *social resilience* to shocks of violence. In other words, entrepreneurs with social resilience are those with portfolios of relationships that are rich in peer entrepreneurs and those who are engaged in their local community. Each of these sources of social resilience can help entrepreneurs mitigate losses from exposure to violent protests and I detail how this occurs in the sections below.

Peer relationships

Peer entrepreneur relationships are those that entrepreneurs form with other entrepreneurs, and that involve regular interactions, familiarity, enough trust to share sensitive business information, and the exchange of advice (Kuhn & Galloway, 2015; B Vissa & Chacar, 2009). These peer entrepreneurs may be in the same sector or not, and they might be more or less senior than the focal entrepreneur. The common identity as entrepreneurs creates a strong foundation for sharing experiences and forming a business relationship (Down & Reveley, 2004; Larson, 1992). There is evidence that shared identities can be a foundation for collaborative behavior and the formation of friendships (Paul Ingram & Yue, 2008), as well as the formation of confidant relationships (Small, 2017). As a result, bonds of friendship between entrepreneurs have been documented and found to often have positive implications for performance (P Ingram & Roberts, 2000).

A central aspect of peer relationships among entrepreneurs is the exchange of advice. There is ample evidence that entrepreneurs seek out advice from other entrepreneurs, who may even be their competitors (Kuhn & Galloway, 2015). These relationships can be sources of advice about business ideas and opportunities (Lerner & Malmendier, 2013; Nanda & Sørensen,

2010) or management practices (B Vissa & Chacar, 2009). The evidence suggests that peer entrepreneurs are particularly efficient at transmitting novel information (Kacperczyk, 2013) and that the receipt of advice from peers increases entrepreneur performance (Chatterji et al., 2018).

Given their significance, peer entrepreneur relationships are likely to be effective buffers against shocks of violent protests for entrepreneurs. They are likely to provide access to advice and material help during violent protests. Specifically, peers may have had prior experience with violent protests and, as a result, may be able to warn others to be on the lookout for such events and have advice about what to do when they occur. Moreover, if an entrepreneur is exposed to violent protests and suffers damages or loses clients, peer entrepreneurs may be a source of advice about how to quickly repair damages, restart operations, and regain lost clients. Peer entrepreneurs may also have advice about how and where to access emergency resources, such as loans. In addition to providing advice, peer relationships may also be a source of material support during shocks of violence, they might themselves provide loans or equipment.

It would be expected, given the kinds of advice and resources that entrepreneurs can access through their relationships with other entrepreneurs during shocks, that entrepreneurs with more of these types of relationships should be better able to perform despite their exposure to protest violence. I therefore hypothesize that:

Hypothesis 2: Entrepreneurs with more relationships to peer entrepreneurs will experience fewer profit losses when exposed to violent political protests.

Community engagement

Local geographic communities matter greatly for entrepreneurs (Marquis & Battilana, 2009; Samila & Sorenson, 2017). They provide them with access to a consistent client base and referrals (Marquis, Glynn, & Davis, 2007), as well as access to information (Saxenian, 1994),

repertoires of organizational structures (Dutta, 2017), and increased legitimacy (Kwon, Heflin, & Ruef, 2013). Beyond this, local communities, I argue, also matter to entrepreneurs because they can be sources of support during shocks. Therefore, entrepreneurs who have been more engaged in their local communities will be better able to perform when exposed to violent protests.

Building a relationship with the local community involves being active in local community civic associations (Putnam, 2000; Ruef & Kwon, 2016). Local civic associations are organizations whose mission is primarily social, involving the improvement of the local community, and whose members are mostly volunteers (Fung, 2003). They often aim to improve communities by organizing cultural events, promoting the business community, or providing educational programs for children, among many other activities. Participating in local community associations enables entrepreneurs to build wide-ranging and collaborative relationships with other members of the community (Kwon et al., 2013; Putnam, 2000). Entrepreneurs who participate in local associations are more likely to have larger and more diverse social networks of contacts (A. E. Davis, Renzulli, & Aldrich, 2006; Stam, 2010). Entrepreneurs are more likely to become known or familiar in their local community. Moreover, these relationships are likely to be characterized by positive affect and mutual trust, which often happens when people work collaboratively on common goals such as community improvement (Rydgren, Sofi, & Hällsten, 2013; Small, 2009). As a result, entrepreneurs who are engaged in their local communities are likely to have larger and more diverse relationships with members of their community, which are also characterized by trust and positive affect.

Community engagement by entrepreneurs is likely to have implications for entrepreneurs' resilience when exposed to protest violence. Participation in local civic associations means that during a disruptive protest entrepreneurs are more likely to be shielded

from the violence. In particular, protesters may be more aware of those entrepreneurs and their businesses, and therefore avoid them when deploying violent tactics. Moreover, those relationships built through community engagement may become a source of support in the direct aftermath of violent protests. Members of the local community might be more likely to rally behind damaged businesses and help them rebuild and reclaim lost clients.

Given that entrepreneurs who have been engaged in their local communities should be likelier to be protected from the violence and be better able to reach out for help in rebuilding their businesses, these entrepreneurs should perform better when exposed to violent protests. I therefore hypothesize that:

Hypothesis 3: Entrepreneurs who engage more in their local community will experience fewer profit losses when exposed to violent political protests.

METHODS

Setting: Political protests in Togo, 2017-2018

Early in the morning of August 19th 2017 a crowd of protesters gathered in a northern suburb of Lomé, Togo. As the mass of people prepared to march into the city center, banners taut and placards held high, police forces began to arrive en masse. The police tore into the crowd, firing teargas. Protesters responded by pelting rocks, erecting barricades, and setting tires on fire. The police escalated the conflict by firing with rubber bullets (Matfess, 2018). The violence erupted quickly and spread rapidly throughout the suburb and by the end of the day dozens of civilians were injured and four were dead (U.S. Department of State, 2019).

Although not the first violent conflict between protesters and police that year, the violence of August 19th catalyzed a series of large and prolonged mobilizations in Lomé over the next

nine months that none had foreseen. Figure 3.1 shows the number of peaceful and violent protests that took place in the city between May 2017 and June 2018. The black dashed line represents the number of violent protests in each month during the period under consideration, while the grey dotted line represents the number of peaceful protests each month. The solid black vertical lines represent the months when survey waves for this study were conducted. There were spikes in the number of violent protests in October of 2017 and April 2018. During the period of observation for this study over 40 people were killed and hundreds were injured in Lomé (Amnesty International, 2018a).

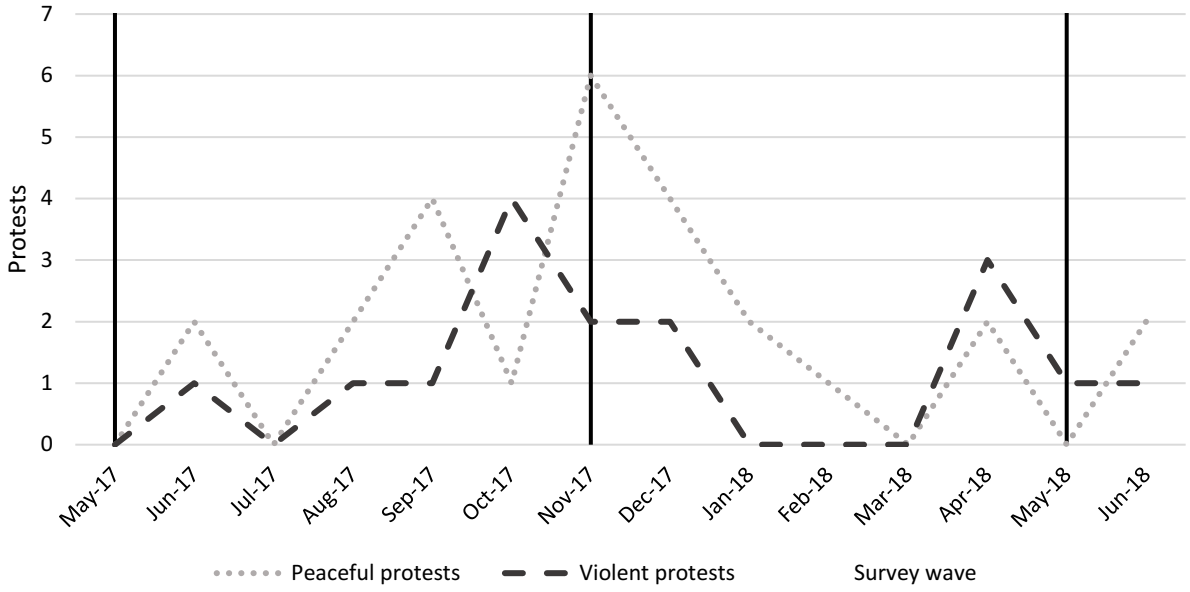


Figure 3.1: Timeline of protests in Lomé

Togo is a relatively small country in West Africa with a population of about seven million people, two million of whom live in the capital, Lomé, which sits on the border with Ghana on the Atlantic coast. The average income per capita is under two dollars per day, making Togo one of the poorest countries in the world.

Politically, Togo has had one of the longest dictatorships in Africa (Bearak, 2017). Shortly after gaining its independence from France in 1960, General Gnassingbé Eyadéma took

control of the government with a military coup and declared himself president. He ruled as a dictator until his death in 2005, at which time the army installed his son, Faure Gnassingbé, as the new president. Since then, tampered elections have repeatedly re-elected Faure Gnassingbé as the president, effectively extending his father's authoritarian regime to the present day (Amnesty International, 2018a).

The protests in Lomé during 2017 and 2018 were motivated by this political situation. Protest organizers put forward two demands to the government: 1) a constitution that limits presidential terms; and 2) allowing members of the Togolese diaspora to vote in national elections. These demands were articulated in various press releases by the "Alliance Nationale pour le Changement" (ANC; National Alliance for Change), the largest political opposition party in Togo.

The majority of protests during the period under consideration were organized by the ANC in coalition with other opposition parties. These protests took place along specific routes in the city which the ANC would announce a week in advance of each protest. None of the calls to protests had any elements of incitement to violence. The majority of the protests, some with over 100,000 participants, were peaceful, without reports of violence or conflict. Those that were characterized by violence became so due to attempts by the government, through its deployment of the military and the police, to suppress them. The attempts consisted of sending dispatches of armed police or military to areas where protesters were marching or preparing to march. These interventions sometimes led to confrontations between protesters and armed forces, which involved teargas, firing of rubber bullets, erecting barricades, water cannons, burning tires, and throwing rocks. The intervention of armed forces led to general disorganization and fear. There

are reports that police and military chased after protesters, following them into the backroads of various neighborhoods (Amnesty International, 2018b).

Data

The main data for this study come from a survey of entrepreneurs that I conducted in the city of Lomé, Togo, during 2017 and 2018. The survey was designed and organized with the purpose of gaining an understanding of how entrepreneurs in Lomé operate and how they interact with their social environment. Although the survey was not expressly designed to study the effects of violent protests, which surged after the first survey wave had ended, many of the performance variables included capture the effects. The criteria for entrepreneurs to participate in the survey were that the business owner must be available for several hours to fill out the survey with a consultant at their business' location and their business must have been in operation for at least one year. The survey was made up of three waves, conducted at six month intervals. The first took place in May 2017, the second in November 2017, and the third in May 2018. The survey was administered by a team of four trained consultants from Lomé. Each of the consultants had over 15 years of experience consulting with entrepreneurs on behalf of various government agencies, teaching at local universities, and had conducted business surveys for the World Bank.

The questionnaire asked about entrepreneurs' age, gender, ethnicity, and household, the characteristics of their business, their business' performance, portfolios of advice relationships, geographic coordinates, as well as involvement in their communities. Having trained the team of consultants, each consultant was given a list of entrepreneurs that had agreed to participate in the survey. The consultants contacted each entrepreneur to schedule a visit to the premises of their business and fill out the survey in person. In order to build a relationship of trust between entrepreneurs and consultants, and to discourage attrition from the survey, each consultant spent

approximately 1 to 2 hours giving management advice to the entrepreneur after they had filled out the survey, as a gesture of gratitude. Each participant in the survey was visited in each wave of the survey by the same consultant to help develop a relationship of trust.

Participants in the survey were solicited from two sources. First, three teams of canvassers systematically visited all major commercial districts of Lomé, about 90 neighborhoods in total, and approached all businesses that met the criteria to participate in the survey within those areas. After describing the survey and the goals of the survey, business owners were asked if they would be interested in participating. This process took about three months, from March to May 2017. The list of business owners who desired to participate was handed off to the consultants administering the questionnaire. The second source of participants was a business training program that was held in Lomé in April 2017. Business owners in this training program were approached to participate in the survey. Contact information for all those who agreed to participate were given to the team of consultants.

This recruitment process led to 333 participants in the first and second wave. Of these, 325 participated in the third wave, representing an attrition rate of 2%, which was due to cases of travel or illness.

Although the survey was designed to be as comprehensive as possible, limited resources and time placed certain constraints on the size of the sample. This could reasonably raise questions about the representativeness of the sample. In the absence of official statistics on small, informal businesses, the best alternative is a detailed survey of small businesses conducted in Lomé by the World Bank in 2013. The survey was conducted throughout the city of Lomé, with criteria similar to the present study, and with a sample size of 1,500. Table 3.1 compares sample characteristics between the two studies. The table shows that on many dimensions the two

samples are similar, the most significant difference being that the sample for the current study contains fewer women. In other respects relating to profitability, size, formality, business practices, technology, as well as entrepreneurs' age and education the two samples are similar. Based on this comparison, the sample used for this study should be representative of small entrepreneurs in Lomé.

Table 3.1: Representativeness of sample

	Sample characteristic	World Bank Informal Business Survey (2017)	This study
1	Mean entrepreneur age	41	39
2	Entrepreneurs that are male	53%	70%
3	Entrepreneurs that finished primary school	70%	68%
4	Entrepreneur is member of a professional association	36%	32%
5	Proportion of financial best practices used	35%	40%
6	Mean number of total firm employees (including full-time and part-time)	2.8	2.9
7	Entrepreneurs' business is formally registered	33%	28%
8	Entrepreneur owns a computer	31%	38%
9	Mean profits from last month	97,675 F CFA	85,600 F CFA
	Sample size	1,500	991

Data on the protests were gathered from textual accounts and reports that appeared in newspapers and press releases. Using these sources to identify protests and their characteristics is an established method in both social movements research (McAdam & Su, 2002) and international business research (Dorobantu, Henisz, & Nartey, 2017). To create this dataset on protests I first defined a set of legitimate newspapers from which to source articles that covered the protests. After consulting with informants in Lomé, I settled on the following list of news outlets: *Togo Tribune, Jeune Afrique, VOA Afrique, Togo Top News, Togo Top Info, Togo Press, Ici Lomé, Togozine, Republic of Togo, Lomé Infos, 27avril.com, and RFI*. All of these outlets are

francophone, some are based in Togo while the rest are international. For each of these outlets I downloaded all articles that contained reference to protests ("manifestation") and were written during the period from April 2017 to June 2018, inclusive. This yielded a total of 320 articles. In addition to these articles I collected all press releases issued by the U.S. Embassy to Togo and all opposition parties, including the ANC which organized the majority of protests. I coded each article for whether they described a public protest event and whether the event was violent or not. If the public protest event was peaceful and was confirmed by at least three separate news outlets, I searched for what route the protest followed in Lomé and recorded it. If there was any incidence of violence I noted where the violence or clash took place and confirmed it with two other independent sources.

For the coding process I followed existing definitions of public protest events as those involving collectives of individuals stating a claim as part of a social movement organization (Sampson, McAdam, MacIndoe, & Weffer-Elizondo, 2005). In this literature, public protest events typically involve three features: 1) the act involves a group of people; 2) the group of people are making a claim for social change; 3) the group has been organized by a social movement organization. This process yielded a total of 42 separate public protest events, of which 15 were violent (for more details on the coding see the Appendix). Each of these protest events often included multiple locations and routes throughout the city. I was able to identify the route of the peaceful protests on all but one occasion and all the locations of the violent clashes.

As a precaution, I compared my coding of the protests with data from the Armed Conflict Location & Event Data Project (ACLED, 2019) which publishes daily data on protests and protestor clashes globally. The comparison revealed that I had identified 2 additional protest events that they had not, but otherwise our coding of the dates of events was the same.

Once the coding was complete, I located the places of violent conflict and peaceful protests on a map using global information system (GIS) ArcMap software. I drew a separate map plotting the routes and locations of violent conflict for each day of protesting. Figure 3.2 shows a map of Lomé with the locations of all the violent clashes that were documented during the period of observation. The black dots in Figure 2 represent the locations of entrepreneurs' businesses that participated in the survey and the solid red lines indicate the sections of streets on which violence occurred. Then I used the GIS ArcMap software to calculate the distance in kilometers of each business that participated in the survey from each protest route and each point of clash. These data were used to calculate each firms' exposure to violent and peaceful protests.

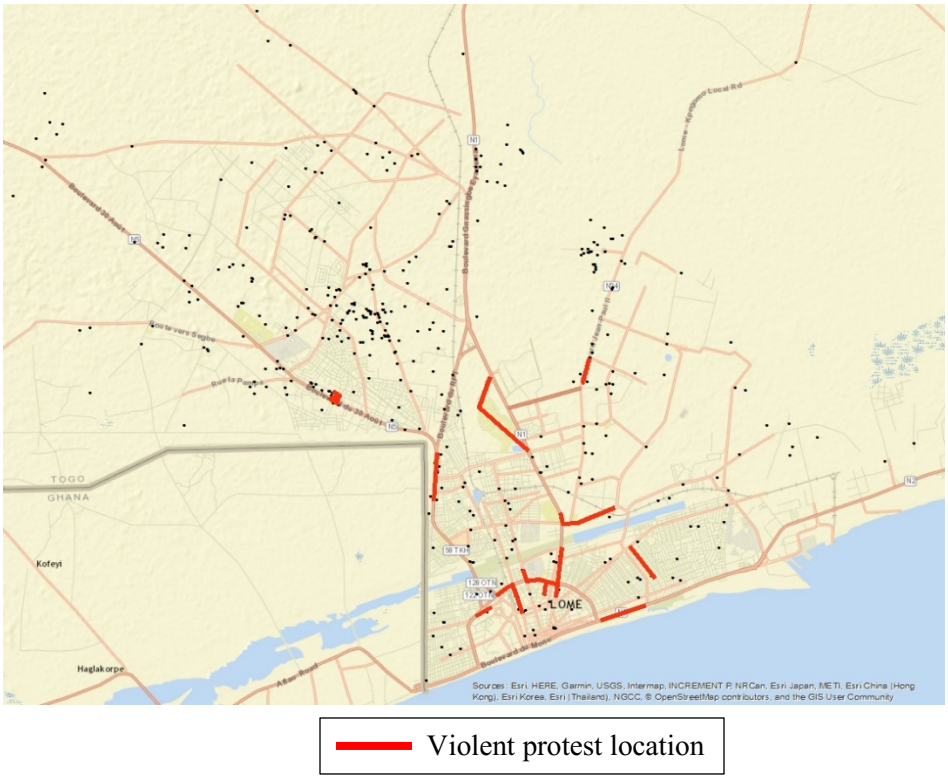


Figure 3.2: Geographic distribution of violent protests in Lomé, June 2017- June 2018

Dependent variable

The outcome of interest in this study is the performance of entrepreneurs' businesses. In developing country contexts this has typically been operationalized as logged *profits last month* (Atkin et al., 2017; McKenzie & Woodruff, 2018). Research in development economics has shown that entrepreneurs' reports of profits over the past month are highly correlated with other long-term measures of performance and tend to be accurate (Anderson et al., 2018; De Mel et al., 2009b).

Independent variables

The main independent variable of interest is entrepreneurs' businesses' *exposure to violent protests*. As described above, violent protest events and their locations were identified from media coverage and reports. These data were used to identify the routes, which were plotted on digital maps using ArcMap software. I geocoded every business in the survey on the same maps. I then calculated the shortest distance between the violence and each business as a straight line on the map.

I then used a distance decay function to estimate the relative effect of proximity to the protest, which is a methodology borrowed from geography studies of the effects of exposure to environmental hazards (Downey, 2006; Pun-Cheng, 2016). The distance decay function I used was:

$$y_{i,j} = \begin{cases} 1 - 1.3333\left(x_{i,j} + x_{i,j}^2\right), & if \;\; 0.5 \geq x_{i,j} \geq 0 \\ 0, & if \;\; x_{i,j} > 0.5 \end{cases}$$

where $y_{i,j}$ is the measure of exposure for each entrepreneur i to each violent protest j, and $x_{i,j}$ is the direct distance in kilometers between entrepreneur i and the violent protest j. The cutoff point after which the protest is assumed not to have an effect is 0.5 km. As I will show in the robustness checks, all results hold under various other cutoffs as well. The final measure of

exposure to violent protests was calculated as the sum of all exposures, $y_{i,j}$, for each entrepreneur over all the events of violence over the period of six months between survey waves.

The two additional independent variables of interest are entrepreneurs' sources of social resilience, which moderate the effect of exposure to violent protests. Specifically, these are peer entrepreneur relationships and community engagement. To measure *peer entrepreneur relationships* I asked each entrepreneur to name up to five other entrepreneurs whom they turned to for help and advice about their business, and with whom they interacted with at least once a month over the past six months. This definition of business relationships for advice follows established ego-centric measures in the literature on entrepreneurship (Renzulli, Aldrich, & Moody, 2000). For the purposes of this survey item peer entrepreneurs were defined as other individuals who own their own business and who had been in operation for at least one year. The variable peer entrepreneur relationships was defined as the sum all of such relationships for each entrepreneur in each survey wave.

The second moderator is *community engagement*, which was measured as the number of local civic association meetings that each entrepreneur attended during the last three months prior to the survey. Local civic associations are defined as formal or informal organizations that have a primary social mission to improve the local community and do not engage in any commercial activities. These include non-governmental organizations, neighborhood associations, professional associations, and religious groups. For the purposes of this study, the local community was defined as the entrepreneur's neighborhood, which consists of several city blocks. For a civic association to be considered local, the majority of its members had to be residents of the neighborhood and its activities had to be related to the neighborhood.

Control variables

I include several control variables in the regressions in order to account for potentially confounding factors. First, I control for entrepreneur *smartphone use*, using a binary indicator variable equal to '1' if they own a smartphone and '0' if they do not. This variable is meant to capture the extent to which entrepreneurs have access to communication technology that might enable them to learn faster about violent events unfolding and respond more quickly than others. It is also a way of controlling for the ability of business owners to access information online, which could affect the way they are impacted by these events. Second, I included a control variable for whether the entrepreneur has access to a *vehicle for business*. This was also constructed as a binary variable, equal to '1' if the entrepreneur's business owns a car or motorcycle and '0' otherwise. Given the absence of public transportation in the city of Lomé and the high cost of taxis, owning a means of transportation can make a very large difference for entrepreneurs.

I also controlled for the entrepreneurs' *number of advice relationships*, which is the total number of people from whom they asked for advice about their business during the previous six months. This variable measures the extent to which each entrepreneur possess a portfolio of potential contacts to request advice from, including both entrepreneurs and non-entrepreneurs. Controlling for the total size of entrepreneurs' portfolio of advice relationships helps to ensure that the variable for peer entrepreneur relationships is capturing the effect of relationships to entrepreneurs, not the effect of number advice relationships more generally.

The ability to adapt well to shocks of violence could also depend on the size of the entrepreneurs' businesses. In order to control for differences in size I included variables for the number of *full-time employees* and the number of *apprentices*. Full-time employees are those that work in managerial, technical, administrative, and other positions within the business on a full-

time basis and are payed. Apprentices are those employees who work with the entrepreneur without pay in order to learn a skill or practice. Controlling for the number of apprentices matters because they are a particularly flexible and cheap form of labor, which can be helpful to entrepreneurs during shocks of violence.

Differences in entrepreneurs' business practices could also lead to differences in entrepreneurs' ability to weather violent protests. Research on entrepreneurs in emerging markets suggests that entrepreneurs with better financial practices tend to perform better (Drexler, Fischer, & Schoar, 2014). To control for this factor I included a control variable for entrepreneurs' *financial practices score* which was developed by McKenzie and Woodruff (2018) and consists of nine management best practices about financial accounting. These practices include keeping a written budget, setting sales targets, and keeping various accounting sheets for expenditures and income. The score is calculated as the proportion of best practices used by the entrepreneur during the last 6 months prior to the survey.

Finally, since the extent to which shocks of violence affect entrepreneurs may depend on the competitiveness of the market in which they operate, I included a variable for the *number of local competitors* that each entrepreneur has. This measure was entrepreneurs' self-reported number of competitor businesses located in the same neighborhood. Since more competitive markets may leave less financial bandwidth for entrepreneurs to adapt to shocks of violence, it was important to control for this difference between entrepreneurs.

Table 3.2 provides the summary statistics and the bivariate correlation matrix for the variables included in the analyses. The average business in the survey generated about 200 USD per month in profits, had about 1 employee, and used about 40% of the financial best practices. The majority of entrepreneurs owned a smartphone (about 84%) and owned a vehicle for their

business (about 64%). The owners of these businesses, on average, had about 3 contacts in their portfolios of advice relationships. Approximately 35% of entrepreneurs in the sample had some positive exposure to shocks of violence from the protests. About 14% of entrepreneurs in the sample had at least one entrepreneur that they sought advice from. For entrepreneurs in the sample, each attended on average about one local civic association meeting during the three months prior. Correlations between independent variables are generally low and the mean vector inflation factor (VIF) is 1.97, which helps alley fears of multicollinearity in the models (Allison, 1999).

Table 3.2: Summary statistics and bivariate correlations

		Mean	S.D.	1	2	3	4	5	6	7	8	9	10
1	Profits last month (log)	11.091	1.001										
2	Exposure to violent protests	0.133	0.392	0.003									
3	Peer entrepreneur relationships	0.247	0.670	-0.025	-0.057								
4	Community engagement	0.927	2.480	0.008	-0.063	-0.023							
5	Smartphone use	0.836	0.371	0.143	0.015	-0.015	-0.043						
6	Vehicle for business	0.641	0.480	0.223	0.023	0.013	0.047	0.218					
7	Number of advice relationships	3.275	3.262	0.143	-0.082	0.275	0.151	0.007	0.100				
8	Full-time employees	0.864	2.548	0.215	0.090	0.046	-0.046	0.051	0.133	0.100			
9	Apprentices	0.966	1.942	0.111	0.024	-0.046	0.138	0.078	0.141	0.041	-0.032		
10	Financial practices score	0.406	0.269	0.301	-0.014	0.048	0.055	0.084	0.134	0.247	0.279	0.033	
11	Number of local competitors	4.967	5.786	0.018	-0.058	-0.065	0.068	-0.055	-0.096	-0.028	-0.054	0.061	-0.089

n = 991

Estimation

The main specification is a difference-in-differences design using ordinary least squares regression with entrepreneur and survey wave fixed effects on an entrepreneur-level panel data set. Violent protests are localized events that affect businesses within a certain radius. Given that businesses outside the radii of violent protests are not affected and these radii are distributed without strong patterns throughout the city, the research question of how exposure to violence during protests affects profits lends itself to difference-in-differences estimation. The treated businesses are those that were exposed to violence during protests, while the control group businesses are those that were outside the radii of exposure for the violence. Moreover, violent protests began abruptly in June of 2017, creating a pre-treatment period for the survey conducted in May 2017 and two post-treatment periods that include the survey waves conducted in November 2017 and May 2018.

Although the time and place of peaceful protests was announced ahead of time by protest organizers, the location and timing of violent protest was not announced and did not follow identifiable patterns. Violence typically erupted when state agents, such as the police or military, would try to block protesters, which as Figure 2 shows happened in a variety of neighborhoods across the city. None of the neighborhoods represented in the sample were statistically more likely to have violent protests than others. Therefore, the geographic distribution of violent protests was exogenous to the distribution of entrepreneurs' business profits. This aligns with existing research that shows that it is difficult to predict when a protest will become violent and where that violence will occur (Baudains, Braithwaite, & Johnson, 2013; Berk & Aldrich, 1972). Thus, the occurrence of violent protests provides a natural experiment for the measurement of losses to entrepreneurs' businesses from political violence.

Given the above, I estimate a difference-in-differences model of entrepreneurs' business profits, pre- and post-exposure to violent protests by fitting a log-linear model. The dependent variable is logged profits last month for each entrepreneur in each wave. The main independent variable of interest is the entrepreneurs' business exposure to violence, which has been interacted with an indicator for the post-treatment period. I include survey-wave fixed effects that control for aggregate shocks in the evolution of business profits and entrepreneur fixed effects that control for time-invariant influences on profits at the level of the individual entrepreneurs. In all specifications, I use standard errors that are clustered at the entrepreneur level.

RESULTS

I hypothesized that exposure to violent protests will lower entrepreneurs' profits (Hypothesis 1) and that this negative effect will be mitigated by two sources of social resilience: advice relationships with peer entrepreneurs (Hypothesis 2) and engaging in the local community (Hypothesis 3). The regression results presented in Table 3.3 support these hypotheses. Model 1 of Table 3.3 shows the regression estimates for the baseline model containing only control variables. In this model, owning a company vehicle and having a higher financial practices score are associated with higher logged profits last month. There is no public transportation in Lomé, so having access to a car or motorcycle for business can broaden the scope of entrepreneurs' businesses, thereby increasing profits. The positive coefficient for financial practices aligns with existing research showing that using these practices is associated with better business performance (Drexler et al., 2014; McKenzie & Woodruff, 2018). In addition to these variables, the coefficients for the number of advice relationships and number of apprentices are also positive and marginally statistically significant. This aligns with expectations that larger

portfolios of advice relationships have positive performance effects (Acquaah, 2007) and that apprentices are a flexible and valuable resource (Mohrenweiser & Zwick, 2009).

Beginning in Model 2 of Table 3 the main independent variable of interest, exposure to violent protests is introduced into the model. The measure of exposure uses a decay function with a cutoff at 500 meters from the violence. The coefficient is negative and statistically significant, lending support to Hypothesis 1. Moreover, the coefficient indicates that a one unit increase in exposure to protests, which is equivalent to a protest occurring at zero distance from the business leads to a fourteen percent decrease in monthly profits. As a result, the substantive losses for entrepreneurs from exposure to violence are high.

This result was confirmed in entrepreneurs' public accounts of their experiences as well. One entrepreneur wrote in an open letter to the Togo Tribune:

> "Our businesses are paralyzed, our revenues are in freefall, and our clients are turning their backs on us … the sociopolitical crisis that is rocking Togo is completely disorienting us. On October 5th, during a march that was called the "march of anger" through the streets of the capital, protesters in the opposition looted our shelves, destroyed our businesses, and stole our money." (Togo Tribune, 2017, p. 1)

Several entrepreneurs in the final wave of the survey mentioned informally to the consultants surveying them how disruptive the violence had been. At least ten participants noted that over the last seven months of the period under consideration in this study, during which protests were happening frequently, they had lost over a month's worth of workdays. These informal discussions and public accounts by entrepreneurs provide some additional detail to the statistical analyses.

Table 3.3: Regressions explaining the effect of exposure to violent protests on entrepreneurs' profits last month (logged)

	1	2	3	4	5
Exposure to violent protests		-0.140	-0.169	-0.170	-0.199
		(0.070)	(0.074)	(0.074)	(0.078)
Exposure to violent protests X Peer entrepreneur relationships			0.236		0.242
			(0.117)		(0.118)
Exposure to violent protests X Community engagement				0.069	0.070
				(0.033)	(0.033)
Peer entrepreneur relationships	-0.003	-0.003	-0.012	0.003	-0.006
	(0.045)	(0.045)	(0.046)	(0.045)	(0.046)
Community engagement	-0.011	-0.011	-0.012	-0.013	-0.013
	(0.017)	(0.017)	(0.017)	(0.017)	(0.017)
Smartphone use	0.187	0.172	0.170	0.180	0.179
	(0.122)	(0.122)	(0.122)	(0.122)	(0.122)
Vehicle for business	0.372	0.378	0.379	0.377	0.378
	(0.140)	(0.138)	(0.138)	(0.137)	(0.138)
Number of advice relationships	0.021	0.021	0.021	0.021	0.021
	(0.013)	(0.013)	(0.013)	(0.013)	(0.013)
Full-time employees	0.002	0.002	0.000	0.001	-0.000
	(0.029)	(0.029)	(0.029)	(0.029)	(0.028)
Apprentices	0.061	0.060	0.060	0.060	0.060
	(0.033)	(0.032)	(0.032)	(0.032)	(0.032)
Financial practices score	0.401	0.386	0.395	0.380	0.389
	(0.146)	(0.145)	(0.146)	(0.145)	(0.146)
Number of local competitors	0.012	0.012	0.012	0.012	0.012
	(0.009)	(0.009)	(0.009)	(0.009)	(0.009)
F-test	5.20	5.19	4.87	5.01	4.74

Note: n = 991; robust standard errors clustered by entrepreneur in parentheses; constant estimated, but not shown, in all models; survey wave and entrepreneur fixed effects included in all models.

Models 3, 4, and 5 of Table 3.3 examine the effects of different aspects of social resilience on entrepreneurs' business performance. Model 3 interacts the exposure to violent protests with the number of peer entrepreneur relationships from which the entrepreneur sought advice over the past three months. The coefficient for the interaction term is positive and statistically significant, indicating that the more peer entrepreneurs that an entrepreneur asked for advice from, the less they were affected by the violence they were exposed to. Figure 3.3 plots

the predicted profits over different values of exposure to violent protests for entrepreneurs with no peers and entrepreneurs who had a positive number of advice relationships to peers. The figure shows that with positive numbers of peer advice relationships entrepreneurs experienced few effects from the protests. In combination, these results provide support for Hypothesis 2.

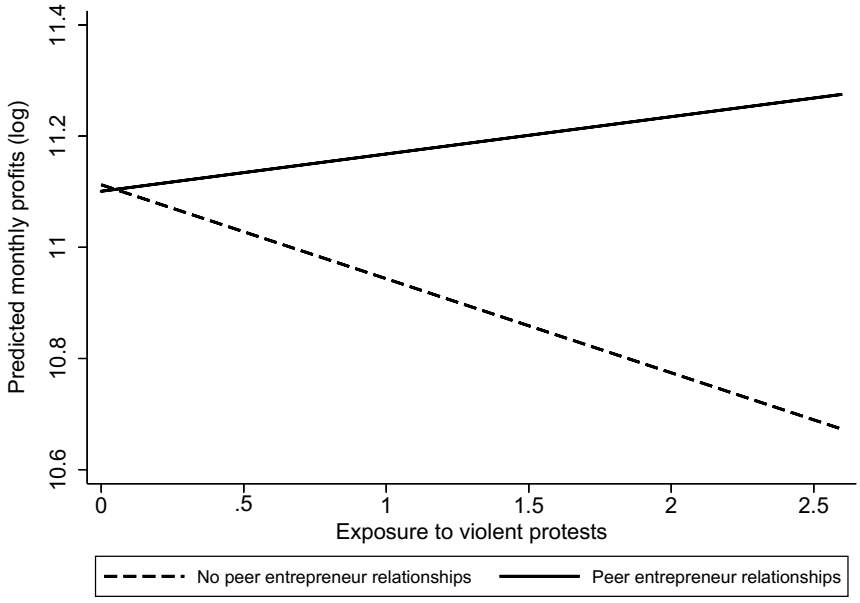


Figure 3.3: The effect of exposure to violent protests on profits for entrepreneurs with and without peer relationships.

Model 4 shows the coefficient estimate for the interaction term between exposure to violent protests and entrepreneurs' community engagement. Hypothesis 3 argued that the more entrepreneurs are engaged in their community the less the exposure to violence should lead to losses. The coefficient for the interaction term is positive and statistically significant, which lends support to Hypothesis 3. The coefficient for the interaction term in the model is such that for entrepreneurs at zero distance from the violence, attending one additional civic association meeting leads on average to a six percent reduction in losses from the exposure to violence. In

addition to this, Figure 4 shows the predicted profits from this model at different levels of exposure to violent protests for entrepreneurs with no community engagement and those with a positive amount of engagement. According to the figure, at the baseline of no violence, entrepreneurs with no community engagement tend to perform better, which aligns with existing research showing that engaging in prosocial activities comes at an economic cost (Battilana, Sengul, Pache, & Model, 2015). However, as the exposure to violence increases, entrepreneurs who engage in their communities experience fewer losses, as indicated by the less steep slope for those entrepreneurs in Figure3. 4. Finally, Model 5 includes the main effect with both moderators, which helps validate that all hypotheses still hold.

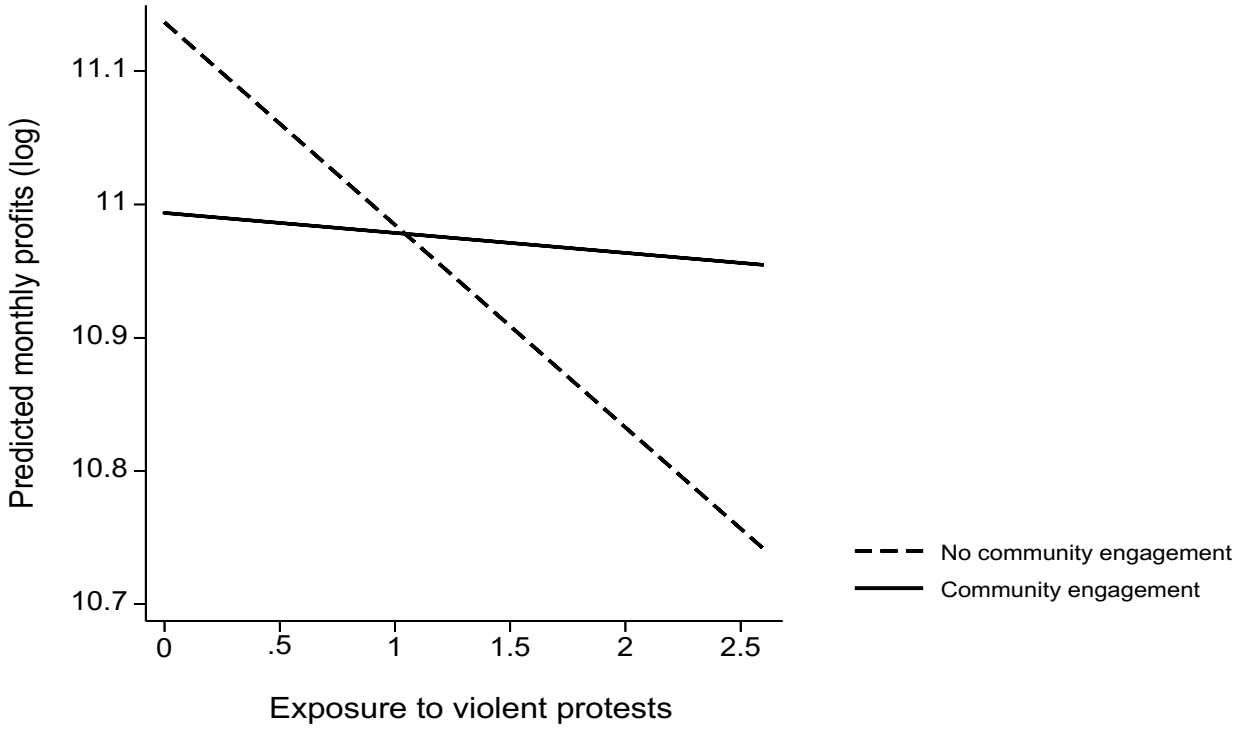


Figure 3.4: The effect of exposure to violent protests on profits for entrepreneurs with and without community engagement

Robustness checks

I conducted a set of supplementary analyses to explore the robustness of the regression results to a number of potential concerns. First, a potential concern could be that the measure of exposure to violent protests is sensitive to the way it was constructed. To address this I ensured that all the results held when I constructed the measure of exposure using different decay functions, different radii of exposure, and different operationalizations of the location of the violence. First, I estimated all results using four alternative specifications of the decay function, varying from linear decay to highly parabolic decay. All the results held regardless of the shape of the decay function. I also estimated all the results using a "buffer analysis," which is an alternative approach used in environmental hazard studies whereby exposure is binary, it is equal to '1' if an entrepreneur's business falls within a specified radius from the violent protest and '0' if it falls outside the radius (Mennis, 2002). Second, I ran all the results using radii of 250m, 350m, 500m, 750m, and 1km. The results held became marginally significant at 750 meters from the violence and statistically not significant at one kilometer from it. For all other distances the coefficients were statistically significant, while the magnitude of the coefficient increased as the radius decreased. Finally, even though media references to the violence were cross-checked using different sources, there could still be a concern that reporters misstated the exact location of the violence. If this is true, then perhaps a coarser, but more correct approximation of the location of the violent protests would be the neighborhood itself. To that end, I used the officially designated boundaries of each neighborhood in Lomé and recorded the number of times each neighborhood experienced a violent clash as reported by the newspapers. This was then used as the indicator of exposure to violent protests and all the results held unchanged. Based on these analyses I was able to ensure that the results were not sensitive to the construction of the measure of exposure.

A second potential concern relates to the variable for community engagement. This variable is intended to capture the extent to which each entrepreneur is an active member of their community and is operationalized as the number of meetings of local civic associations that the entrepreneur attended during the last three months. A different approach to capturing community engagement might be to count the number of different local civic associations in which an entrepreneur regularly participates. I ran all of the analyses substituting this variable instead of the number of meetings attended and the results held.

Another potential concern with the analyses is that for different groups of firms the exposure to violent protests occurred at different times. In other words, some businesses were exposed to the protests between wave 1 and 2 of the survey and others between wave 2 and 3. Although this event structure can be modelled by difference-in-differences regressions (Wooldridge, 2010), there can be concerns of biased estimates when the treatment occurs over multiple periods (Goodman-Bacon, 2018). To check that this was not biasing the results, I estimated the results using only two time periods, pre and post, and the results held without changing.

Given the use of a difference-in-differences estimation approach, there could also be a concern with the construction of treatment and control groups. The treatment group included all businesses that were within a certain distance of at least one violent protest, while the control group included all entrepreneurs whose businesses had not been within the radius of any violence. One concern might be that because entrepreneurs in the control group were further from violent events, they operate in different kinds of environments and so are not completely comparable with entrepreneurs in the treatment group. To test this I ran all the regressions using a control group that included only the businesses that were within 1 km of the firms that

experienced the protest. In other words, these were businesses that were near the treated businesses and part of the same environment, but happened to not be hit. The results remained unchanged.

On the other hand, there could also be concerns that the treatment effect was not estimated accurately if the control group was also being affected by the violent protests to some extent. To make sure that there weren't spillovers from the violence that affected the control group, I estimated all models using a control group of firms that was at least 1 km further away from the violent protests than the businesses in the treatment group. The results did not change.

Finally, to ensure that the effect was not driven by factors that were not controlled for in the regressions, I ran the models including several additional control variables. I included separately and together controls for whether the business was formally registered with tax authorities, what the business owners' income was, and whether the business had clients outside the city of Lomé. In all cases the results held unchanged.

How do violent protests cause losses?

A baseline prediction in this paper is that exposure to violence in the context of protests leads to losses in profits for entrepreneurs. Although the analyses in the previous section provided considerable evidence that businesses that are proximate to violence during protests tend to suffer significant losses, it isn't entirely clear how this happens. The theory outlined two possibilities: businesses may incur significant physical damages from looting and clashes that inflate entrepreneurs' expenses or they may lose customers who perceive the entrepreneurs' location as disorganized and dangerous.

Additional data on different aspects of entrepreneurs' performance can help inform us as to which of these two mechanisms may be more at play. I estimate the effect of exposure to violence in protests on entrepreneurs' number of clients, sales, and expenses. Sales are measured similarly to profits as the logged total sales during the previous month. Clients are measured as the total number of clients who bought from the entrepreneur in the previous month and expenses are the logged total expenses associated with the business over the past month. These variables follow standard measures of these financials in studies of entrepreneurship (McKenzie & Woodruff, 2018). If the primary mechanism is loss of profits through damage to physical property we should see violence causing an increase in expenses. By contrast, if the primary mechanism is the loss of clients from fear, we should see decreases in sales and clients.

Table 3.4 shows the coefficients for regressions that estimate the effect of exposure to violent protests on clients, sales, and expenses for entrepreneurs. All the models in Table 3.4 are estimated similarly to those in Table 3.3, using entrepreneur level fixed effects and survey wave fixed effects, with standard errors clustered at the entrepreneur level. In Models 1 and 2 the dependent variable is the total number of clients during the last month. The effect of exposure to violence on number of clients is negative and statistically significant. In Models 3 and 4 the dependent variable is logged sales during the last month and here again the effect is negative and statistically significant. Finally, Models 5 and 6 use the logged entrepreneurs' monthly expenses as an outcome variable and the effect of exposure to violence is not statistically significant. These results provide some support for the mechanism that entrepreneurs suffer from the violence because they lose clients and sales, potentially due to fear and perceptions of disorder. These results align with research on the traumatizing effects of violence on individuals and how these changes in perceptions have long lasting effects (Sampson & Raudenbush, 2004).

Table 3.4: Regressions explaining the effect of exposure to violent protests on entrepreneurs' number of clients, logged sales last month, and logged expenses last month

	Clients		Sales		Expenses	
	1	2	3	4	5	6
Exposure to violent protests		-0.151		-0.132		-0.072
		(0.069)		(0.062)		(0.069)
Peer entrepreneur relationships	-0.083	-0.083	-0.023	-0.023	-0.058	-0.058
	(0.053)	(0.053)	(0.032)	(0.032)	(0.048)	(0.048)
Community engagement	0.033	0.032	0.009	0.009	-0.021	-0.021
	(0.027)	(0.027)	(0.009)	(0.009)	(0.023)	(0.023)
Smartphone use	0.019	0.002	0.154	0.140	0.061	0.053
	(0.139)	(0.140)	(0.108)	(0.106)	(0.172)	(0.172)
Vehicle for business	0.096	0.103	0.193	0.198	0.093	0.096
	(0.170)	(0.168)	(0.140)	(0.136)	(0.177)	(0.176)
Number of advice relationships	0.001	0.000	0.018	0.018	0.011	0.011
	(0.021)	(0.021)	(0.017)	(0.017)	(0.020)	(0.020)
Full-time employees	0.011	0.011	0.004	0.004	0.054	0.054
	(0.028)	(0.028)	(0.016)	(0.016)	(0.024)	(0.024)
Apprentices	-0.009	-0.010	0.059	0.058	0.039	0.038
	(0.029)	(0.029)	(0.022)	(0.023)	(0.030)	(0.030)
Financial practices score	0.539	0.523	0.321	0.308	0.519	0.511
	(0.181)	(0.180)	(0.138)	(0.137)	(0.165)	(0.165)
Number of local competitors	0.007	0.006	0.006	0.006	-0.026	-0.026
	(0.011)	(0.011)	(0.008)	(0.008)	(0.020)	(0.020)
F-test	1.90	2.13	4.54	4.96	3.33	3.21

Note: n = 991; robust standard errors clustered by entrepreneur in parentheses; constant estimated, but not shown, in all models; survey wave and entrepreneur fixed effects included in all models.

How does social resilience buffer entrepreneurs from losses?

In the theory section, it was argued that social resilience buffers entrepreneurs from the exposure to violence. The two components of social resilience that were emphasized were peer entrepreneur relationships and community engagement. Although there is significant evidence that each factor did help entrepreneurs exposed to violence during protests, the specific mechanisms through which these relationships worked could be further elucidated.

With regard to peer entrepreneur relationships, these might provide access to knowledge about better management practices that could be helpful during crises. A set of particularly

important practices during turbulent times are planning practices (Hiatt & Sine, 2014). These involve using best practices for monitoring sales and expenses, keeping track of stock, and projecting business trends, which is very difficult in developing country contexts (De Mel et al., 2009b). If relationships to other entrepreneurs are helpful because of the knowledge that they provide access to, then there should be evidence that entrepreneurs with more peer relationships have better business planning practices. Using data from the survey, I estimated the effect of peer entrepreneur relationships on having good planning practices. Based on a set of eight planning practices outlined by McKenzie and Woodruff (2018), I created a score, ranging from zero for entrepreneurs with none of those practices, to one, for entrepreneurs with all the planning practices. This was the dependent variable for Model 1 in Table 5. The regressions use the same setup as in Tables 3 and 4, with the same control variables. Model 1 shows that having more peer relationships leads to better planning practices, which ought to be very important for entrepreneurs during turbulent times and may be indicative of peers providing important knowledge about management practices.

Similarly, for the local community to be a source of support during times of shock there should be a sense of trust between the entrepreneur and their community (Neace, 1999). Relationships characterized by trust are likelier to be stronger (Homans, 1958), transfer more information (Fisman & Khanna, 1999), and do favors for each other (Kalnins & Chung, 2006). If the theory that community engagement creates a relationship with the community that can be activated during times of shock is correct, then we would expect to see community engagement to lead to more trust between the entrepreneur and their community. In the survey, I asked each entrepreneur whether they felt that they could trust members of their local community and whether members of the community were trustworthy, which captures a different aspect of trust

(Hardin, 2002). Models 2 and 3 of Table 3.5 show regressions estimating the relationship between community engagement and whether the entrepreneur feels trust towards members of their local community. Both dependent variables in these models are binary, so the model used is a panel logit. The coefficients for community engagement are statistically significant and positive in both cases. This helps confirm the theory that more community engagement creates a stronger connection between the entrepreneurs and the local community, which can be particularly helpful during shocks of violence.

Table 3.5: Regressions explaining the effect of peer relationships and community engagement on entrepreneurs' planning practices and trust towards their community

	Planning practices score	Trust community	Community is trustworthy
	(1)	(2)	(3)
Peer entrepreneur relationships	0.018	0.175	-0.019
	(0.008)	(0.228)	(0.321)
Community engagement	-0.003	0.227	0.193
	(0.002)	(0.085)	(0.094)
Smartphone use	-0.022	-1.098	-0.478
	(0.024)	(0.519)	(0.619)
Vehicle for business	-0.014	-1.057	-0.143
	(0.023)	(0.621)	(0.892)
Number of advice relationships	0.004	0.023	0.107
	(0.002)	(0.055)	(0.074)
Full-time employees	0.006	-0.232	0.322
	(0.005)	(0.203)	(0.318)
Apprentices	0.000	-0.094	0.308
	(0.005)	(0.155)	(0.266)
Financial practices score	0.179	-0.625	-1.180
	(0.029)	(0.686)	(0.765)
Number of local competitors	0.002	-0.061	-0.077
	(0.002)	(0.049)	(0.059)
F-test / LR-χ^2	6.70	92.39	53.36

Note: n = 991; robust standard errors, clustered by entrepreneur, in parentheses; constant estimated, but not shown, in all models; survey wave and entrepreneur fixed effects included in all models. Model 1 is estimated using OLS, while Models 2 and 3 are estimated using fixed-effects logit.

Do peaceful protests harm entrepreneurs?

Not all protests are violent. In the case of Togo, most political protests were orderly, peaceful, and lawful. Given the importance of protests and demonstrations as a social movement tactic, it is worth asking whether peaceful protests have the same effect as violent ones on entrepreneurs' business performance. Peaceful protests are defined as those that involve gatherings or marches that have been planned and announced in advance, do not damage property, and do not involve any violent altercations. From the outset, it's not clear whether exposure to peaceful protests would hurt entrepreneurs. On the one hand, the peaceful nature of the protests would suggest minimal disruptions to their businesses. Yet, on the other hand, many protests, especially when they are large, can disrupt the normal flow of business during the day.

Models 1 and 2 of Table 3.6 test the effect of exposure to peaceful protests, measured similarly to the exposure to violent protests, on entrepreneurs' profits. The effect is not statistically significant and in terms of magnitude is insignificant. These data suggest, therefore, that there is no evidence that peaceful protests lead to losses for entrepreneurs who are proximate.

Table 3.6: Regressions explaining the effect of exposure to peaceful protests on entrepreneurs' logged profits last month

	1	2
Exposure to peaceful protests		-0.001
		(0.013)
Peer entrepreneur relationships	-0.003	-0.003
	(0.045)	(0.045)
Community engagement	-0.011	-0.011
	(0.017)	(0.017)
Smartphone use	0.187	0.188
	(0.122)	(0.123)
Vehicle for business	0.372	0.372
	(0.140)	(0.140)
Number of advice relationships	0.021	0.021
	(0.013)	(0.013)
Full-time employees	0.002	0.002
	(0.029)	(0.029)
Apprentices	0.061	0.061
	(0.033)	(0.033)
Financial practices score	0.401	0.401
	(0.146)	(0.146)
Number of local competitors	0.012	0.012
	(0.009)	(0.009)
F-test	5.20	4.77

Note: n = 991; robust standard errors, clustered by entrepreneur, in parentheses; constant estimated, but not shown, in all models; survey wave and entrepreneur fixed effects included in all models.

DISCUSSION

In this study I have argued that exposure to political violence, in the form of violent protests, leads to large performance losses for entrepreneurs. These losses, however, can be mitigated when entrepreneurs have social resilience, which involves having relationships with peer entrepreneurs and engaging in the local community. I tested this theory using data from the West African country of Togo, during a time when the city of Lomé was rocked by nine months of intense political protests, and analyses of the data support the theory.

Contributions

This study contributes to the literature on the effects of political violence on business. A growing literature has begun examining how entrepreneurs launch, grow, and survive in environments characterized by the significant presence of political violence (Hiatt et al., 2018). This literature has focused largely on how businesses and entrepreneurs are able to survive or remain in environments with relatively high rates of political violence (Blumenstock et al., 2018; Dai et al., 2017; Hiatt & Sine, 2014). The present study contributes to this line of research by considering a type of political violence that hasn't been studied before in terms of its effects on business performance, violent protests. Despite their relative prevalence globally, we know relatively little about how violent protests disrupt entrepreneurs. This study explores the role of violent protests in causing losses of business profits for entrepreneurs, as well as strategies to mitigate those losses. As a result, this study provides insights about another phenomenon within the realm of political violence that has implications for entrepreneurs.

An additional contribution within this literature is the level of aggregation at which political violence is explored. Political violence can be studied as a feature of the institutional environment or it can be understood as an event to which entrepreneurs are directly exposed. Existing studies have generally explored political violence as a feature of the institutional environment, which means that in those studies entrepreneurs are not necessarily victimized or even witnesses to the violence, but rather are affected indirectly through a range of pathways that aggregate to create a more uncertain, volatile, and fearful environment. In this approach, it is difficult to make causal claims about the effects of political violence. In the current study, I examine the phenomenon of political violence at a micro-geographic level of analysis. This not

only allows me to estimate more precisely the degree of exposure of entrepreneurs to political violence, it also enables me to better estimate the causal effects on performance.

This paper also contributes to the study of entrepreneur social resilience. A growing stream of research has been emphasizing the importance of resilience for businesses in developing countries and emerging markets (Gao et al., 2017; Williams et al., 2017). In this study, I propose that social resilience, that is resilience derived from sources outside the organization such as peers and the local community, can be a significant factor in entrepreneurs' success in weathering shocks. Although we know that peers (Chatterji et al., 2018) and local communities (Kwon et al., 2013) can be important for entrepreneurial performance, we have little information on how these groups can assist during times of shock and particularly in developing countries. This study shows that these groups can have profound effects on entrepreneurs' performance in places where political violence occurs.

The results from this study also contribute to research on entrepreneurship in emerging markets and developing countries. A rapidly growing literature has begun exploring the determinants of entrepreneurial performance in these settings (Wright, Filatotchev, Hoskisson, & Peng, 2005; Yiu, Lau, & Bruton, 2007). Despite the rapid growth of research in this area, we know relatively little about how to help entrepreneurs perform better. In the present study I document the effects of political violence and outline some factors that may help respond to it. Going forward, studies that examine businesses in emerging or developing markets should consider whether protests occurred during the period of observation, whether they were violent, and whether they could have affected the performance of the entrepreneurs that they study.

In addition to the literatures mentioned above, this study also touches on the subject of shocks to entrepreneurs and organizations. Events that have been labelled as "shocks" or "jolts"

to organizations are defined as periods of sudden and unforeseen change that bring on significant shifts in employment, production, organizational populations, and the availability of resources (A. D. Meyer, 1982; A. D. Meyer et al., 1990). Researchers have studied various types of shocks to businesses, including recessions (Chakrabarti, 2015; Wan & Yiu, 2009), "mega-events" (Tilcsik & Marquis, 2013), technological innovations (Tushman & Anderson, 1986), and natural disasters (Dutta, 2017), among others. These studies have focused on how shocks change the environment in which organizations are embedded and how these changes necessitate adaptive responses from businesses in order to survive (Dess & Beard, 1984; Haveman, 1992; Venkataraman & Van de Ven, 1998). The present study adds to that literature the case of violent protests and documents the direct effects that these can have on entrepreneurs.

Finally, this study also makes a contribution to social movements research (King, 2011; Luders, 2006). The majority of social movements research focuses on the parties in conflict, those demanding change and those who represent the status quo. However, there are also third parties to these conflicts, often called bystanders (Gamson, 2004),who don't necessarily have a position on the issue being protested and instead act as witnesses to the activity performed by the social movement (McCarthy & Zald, 1977; Turner, 1970). Despite their bystander status, however, this study helps to show that they can be deeply affected by social movement activity. When social movements involve violent tactics or when governments intervene and cause disruptions, the violence spills over beyond the parties in conflict and has real effects on exposed entrepreneurs.

Limitations and future directions

This study, of course, has certain limitations which suggest avenues for future research. First, this study is based on data from a single institutional context. Although the harmful effects of

exposure to political violence are likely to generalize beyond this single context, it is unclear whether entrepreneur social resilience will be made up of the same sources in different contexts. In many developing countries peers and the local community are very central to economic activity (Mair & Marti, 2009; Mair, Marti, & Ventresca, 2012). It is therefore aligned with existing research to propose that social resilience, as described in this study, might generalize to other developing countries. But, it isn't clear whether this kind of resilience would generalize to a developed economy or that it would play as central a role. Future research will have to explore to what extent entrepreneurs in other settings can leverage these and other sources of social resilience as buffers against shocks.

Another important limitation of this study is that it focuses on entrepreneurs with relatively small businesses. Although in emerging markets and developing countries these entrepreneurs represent the majority of economic activity (Lundvall & Battese, 2000), this study leaves out two important groups: aspiring entrepreneurs and medium or large businesses. Although aspiring entrepreneurs may not have much to lose from being proximate to violent events, it is unclear whether the violent shocks dampen aspiring entrepreneurs' plans to launch a business or whether they might create new opportunities as established businesses fail. Similarly, it also remains unclear whether larger businesses would be as affected by the violence and what their strategies might be for mitigating the damages. Future studies will have to explore how these different kinds of organizations are affected by and respond to exposure to political violence.

Finally, although the components of social resilience examined in this study were based on existing theory, data limitations preclude this study from examining all potential sources of social resilience that could theoretically help buffer entrepreneurs from violent shocks. In

particular, research on multinational corporations has identified some stakeholders, such as clients and suppliers, with whom relationships could also function as important buffers. Another important group are family members, which we know from existing research are important in the performance of businesses in developing markets (Luo & Chung, 2013). Yet, we know less about whether family can be a source of social support during a time of crisis. These factors will have to be addressed by future researchers.

Conclusion

Shocks of violence that emanate from protests are common and increasing in frequency around the world (ACLED, 2019). These shocks have devastating effects on entrepreneurs in developing countries, which are contexts where entrepreneurs are already particularly vulnerable. This study has attempted to bring attention to this topic, by showing the extent to which entrepreneurs experience losses when exposed to political violence and by highlighting some of the factors that can make them more resilient to the shocks. Yet, much more research is needed to explore this issue and to discover more ways in which entrepreneurs might be better able to perform during times of crisis.

Chapter 4.

Institutional linkages and gender: How institutional affiliations benefit women entrepreneurs in developing countries

Although women entrepreneurs contribute disproportionately to economic development, women remain underrepresented in entrepreneurship and tend to land behind male entrepreneurs in terms of number of employees, value-added, and profits survival (Brush & Cooper, 2012; World Bank, 2019). There is evidence that women entrepreneurs are discriminated against when they seek access to financing, government contracts, education and training, clients, and employees, among other things (Jennings & Brush, 2013; Marlow & Patton, 2005). Yet, despite these challenges, the success of women entrepreneurs in developing countries is deeply significant because it contributes directly to women's empowerment (Duflo, 2012) and can have a positive effect on future generations of women entrepreneurs (Beaman, Duflo, Pande, & Topalova, 2012).

What kinds of strategic actions can help women entrepreneurs in developing countries become more profitable? Research on grant programs, microfinance loans, entrepreneurial training programs, and subsidized employees have shown mixed results in the short term and, in the long run, have generally failed to improve women entrepreneurs' profitability, survival, and growth (S. De Mel, D. McKenzie, & C. Woodruff, 2009a; McKenzie & Woodruff, 2013). But, this existing research has focused on helping women entrepreneurs by providing the resources that they have been excluded from, rather than addressing the underlying discrimination. Interestingly, we have few insights about what entrepreneurial strategies women entrepreneurs in developing countries can use to reduce the extent to which they are discriminated against. Addressing discrimination against women entrepreneurs in market interaction could provide a

long-term pathway to higher profitability. Yet, it remains an open question as to what kinds of strategic actions could have this effect.

Building on research on the effects of institutional linkages on business survival (Baum & Oliver, 1991), I argue that institutional linkages to the state, defined as ties to well-established formal societal institutions (Baum & Mezias, 1993), can play a critical role in enabling women entrepreneurs to increase their business performance. Institutional linkages act as a signal of quality and accountability (Baum & Oliver, 1992), in environments that are often unstable, which makes others less likely to have to rely on negative cultural beliefs about gender when evaluating those businesses. As a result, institutional linkages help women entrepreneurs overcome some of the negative biases that exist against them in interactions.

The benefits of institutional linkages should manifest in at least two significant ways for women entrepreneurs. First, they should lead to a more gender diverse set of business advice relationships by increasing the proportion of men in women entrepreneurs' portfolios of advice relationships. Business advice relationships involve the regular exchange of information about entrepreneurs' businesses and the discussion of advice. There exists empirical evidence that women entrepreneurs tend to have gender homogenous networks of business advice relationships (Ibarra, 1997; Renzulli et al., 2000), which can put them at a disadvantage (Ibarra, 1993). Second, institutional linkages should increase women entrepreneurs' profits relatively more than they do men's profits, because they lower the extent to which various actors, including clients, investors, and employees, rely on negatively biased cultural beliefs. Thus, I hypothesize that institutional linkages will disproportionately benefit women entrepreneurs by increasing the proportion of men in their sets of advice relationships and by increasing their profits.

I test this theory using one particularly important type of institutional linkage in developing countries: legal registration with tax authorities. In developing countries the majority of entrepreneurs operate outside the boundaries of the law, in the informal sector. As a result, the decision of whether to register is relevant to many entrepreneurs in these environments. The case of legal registration is all the more important because often the tax authorities are among the few legitimate institutions in developing countries that are open to establishing a linkage with small informal entrepreneurs. Although a long tradition of sociological research has emphasized the ambiguous effects of legal registration on business performance (Castells & Portes, 1989; Portes & Haller, 2005), recent evidence tends to indicate that on average entrepreneurs are more likely to benefit from registering than not (Assenova & Sorenson, 2017).

I empirically test my hypotheses using a novel dataset of 320 entrepreneurs in Togo during 2017-2018. Consistent with my hypotheses I find that women entrepreneurs benefit disproportionately more than their male counterparts from legally registering. First, they gain a higher proportion of men in their advice networks. Second, their profits increase by more than men's profits. To complement my main analysis, I use an instrumental variable to causally identify the relationship between institutional linkages, gender, and profitability.

This study contributes to the study of institutional linkages, gender, and entrepreneurship in developing markets. First, it contributes to the study of institutional linkages by showing that they can have different effects for men and women. Although institutional linkages have been studied extensively (Sorenson & Stuart, 2008), very little research has examined how these effects may differ by entrepreneurs' gender. This study shows that women in developing countries can benefit disproportionately from institutional linkages. Second, this study also contributes to research on gender (Jennings & Brush, 2013). Although much is known about the various cultural

beliefs and norms that constrain women in various markets, we know less about the policies and interventions that help empower them (Datta & Gailey, 2012). Empowering women is important in and of itself, and is an integral part of economic development. This study helps add to research on how the institutional linkage of participation in formalized markets can empower women by spurring the performance of their businesses. Finally, this study also contributes to the study of entrepreneurship in developing markets. This study helps provide some insight into the complexities of entrepreneurship in developing economies and how previously studied institutional factors can have unexpected effects.

WOMEN ENTREPRENEURS, INSTITUTIONAL LINKAGES, AND DEVELOPING COUNTRIES

Uncertainty is pervasive in entrepreneurial settings and prospective employees, clients, and investors frequently have difficulty evaluating whether an entrepreneur will grow and be profitable (Sorenson & Stuart, 2008). In developing countries, where formal institutions often regulate markets less and have difficulty enforcing contracts, the uncertainties surrounding the evaluation of entrepreneurs are magnified (Hiatt & Sine, 2014).

An important social mechanism for mitigating the effects of uncertainty are institutional linkages, which are defined as an entrepreneur's affiliation with and recognition by a credible and legitimate actor, in a way that is observable by third parties (Stuart, Hoang, & Hybels, 1999; Zott & Huy, 2007). Institutional linkages can take the form of contracts, co-location, partnerships, certification, formal recognition, or participation in that institution (Baum & Oliver, 1991). The institution can be a state agency, the military, certification granting organizations, or

high-status firms. Institutional linkages signal that the entrepreneur adheres to certain prescriptions about business, may have access to privileged resources through that institution, and maintains a certain minimum quality. Entrepreneurs with institutional linkages are also more accountable, because if they do not maintain the practices or standards that enabled them to participate in the institution they may lose their institutional link. An additional benefit that institutional linkage conveys for entrepreneurs is standardization of business practices or structure, which makes it easier for others to understand the business and communicate about it. A significant literature has demonstrated that institutional linkages provide important benefits for entrepreneurs.

For entrepreneurs in developing countries, institutional linkages are particularly important for performance and survival(Marquis & Raynard, 2015). In many developing countries there are few institutions that are stable enough to provide the benefits associated with linkages to them. These may include branches of the government (Acquaah, 2012), the military (Hiatt et al., 2018), and multinational corporations (Dorobantu, Aguilera, Luo, & Milliken, 2018). Given that uncertainty about entrepreneurs is frequently high in developing countries, affiliations to institutions tend to have strong implications for obtaining investments, profitability, and growth (Shi, Markóczy, & Stan, 2014).

Embedded in the literature on institutional linkages and entrepreneurship is an assumption that the effect of these linkages does not vary with entrepreneurs' gender. More precisely, existing research assumes that institutional linkages mitigate audiences' uncertainties about entrepreneurs, and that this effect is the same whether the entrepreneur is a man or woman. Although this may be true in environments where gender does not influence market actors' judgments, this assumption is less likely to hold when gender is a salient aspect of actors'

interactions with entrepreneurs. In these cases, women entrepreneurs will often face additional challenges, such as exclusion due to skewed gender demographics or negatively biased evaluations due to prevalent cultural beliefs about gender. Under these circumstances, institutional linkages may have the potential to mitigate some of these additional challenges that women entrepreneurs face, thereby disproportionately benefiting them. As a result, in cases where gender is a salient aspect of entrepreneurs' interactions with market actors, such as clients, employees, or investors, institutional linkages may benefit women entrepreneurs more than they benefit men.

The benefits from institutional linkages for women entrepreneurs are likely to be particularly strong in developing countries, where there are often strong cultural beliefs about women and business (Duflo, 2012) and where women entrepreneurs are often in the numerical minority. In certain developing countries traditional religious institutions impose restrictions on women's behavior that not only disassociate their gender from entrepreneurship, but also directly prevent them from participating in certain types of market interactions (Field, Jayachandran, & Pande, 2010). In developing countries many sectors of economic activity are numerically dominated by men, which leads to patterns of exclusion of women entrepreneurs (Ghani, Kerr, & O'connell, 2013). Also, the numerical majority of men in entrepreneurship in these environments also creates a dearth of role of models that legitimize female entrepreneurs' endeavors (Beaman, Chattopadhyay, Duflo, Pande, & Topalova, 2009). Women entrepreneurs, who face additional challenges in more developed countries, are even more so disadvantaged in the context of developing countries. As a result, there is an even higher probability that institutional linkages may affect women entrepreneurs differently than men, in those contexts.

Given the salience of gender in many of entrepreneurs' interactions and the gendered cultural belies about entrepreneurship that are prevalent, particularly in developing countries, institutional linkages may significantly mitigate some of the disadvantages that women face. Institutional linkages are both signals of quality and of accountability. Consequently, these signals may help women overcome some of the biases and challenges they face in their interactions, thereby creating a disproportionate benefit for them compared to men.

Entrepreneur business advice networks

Institutional linkages will affect how women entrepreneurs are perceived by a variety of audiences and an important audience among them are prospective male advisors. Entrepreneurs' advice relationships are a central point of access to knowledge about management and information about markets. Advice relationships are typically towards more senior, experienced individuals whom entrepreneurs trust and can seek advice from (Huang & Knight, 2017).

A consistent pattern among women entrepreneurs is that they tend to have gender homophilous advice networks. That is, their advice networks are made up of mostly women. This parallels patterns of women's professional networks in workplaces, which also display significant gender homophily (Ibarra, 1992). It is worth noting that these network dynamics occur in spite of evidence that women entrepreneurs put as much effort as men do into networking and into seeking out advice for their business activities (H. E. Aldrich & Elam, 1997; Greve & Salaff, 2003; Grossman, Yli-Renko, & Janakiraman, 2012).

The lack of gender diversity in women entrepreneurs' advice relationships can have significantly negative consequences for the performance of their businesses (Stuart & Sorenson, 2007). The concentration of business advice relationships in one gender can potentially increase

the redundancy among contacts, thereby limiting access to new information (Burt, 1992). Moreover, there is evidence that male advice relationships are more likely than female advice relationships to be instrumental and provide access to resources (Renzulli & Aldrich, 2005). A lack of gender diversity in advice relationships, therefore, may put women at a disadvantage for recognizing business opportunities and obtaining resources (Thébaud, 2010).

Substantial research points to the fact that much of the homophily in women entrepreneurs' advice relationships is accounted for by choice homophily and discrimination. Choice homophily is defined as the preference of male advisers for entrepreneurs of the same sex (Abraham, 2019; Greenberg & Mollick, 2017; Ruef et al., 2003). These kinds of preferences occur because gender similarity disposes similar individuals towards greater interpersonal trust and understanding, thereby facilitating the formation of an advice relationship (McPherson, Smith-Lovin, & Cook, 2001). Exacerbating this dynamic is the pattern that potential advisers may have negatively biased evaluations of women entrepreneurs' potential and abilities when those evaluations are influenced by cultural beliefs about gender.

Given that the primary drivers of the gender composition in entrepreneur advice networks is choice homophily and discrimination, changes in the perceived trustworthiness or quality of women entrepreneurs should influence these dynamics. In particular, women entrepreneurs with institutional linkages should be perceived as more trustworthy and of higher quality because of their perceived adherence to institutional norms and the signal that they meet the standards for participating in that institution. These signals help reduce uncertainty about the quality of women entrepreneurs' abilities and the potential of their businesses. Moreover, the adherence to certain institutional norms helps make understanding women's businesses and their operations simpler, because adherence to the norms involves following standardized practices and structures that can

be commonly understood. These factors should make it likelier that women entrepreneurs with institutional linkages are able to gain more male advisors and mitigate gender homophilic dynamics in their portfolios of advice relationships. Given this, I hypothesize that:

Hypothesis 1: Women entrepreneurs will have a higher proportion of male advisors in their business relationships when they have an institutional linkage.

Entrepreneur business performance

Beyond the composition of women entrepreneurs' advice networks, institutional linkages can also influence interactions with other market actors that are critical to the profitability of entrepreneurs' businesses, such as prospective clients, investors, and employees. There is substantial evidence that gendered cultural beliefs lead many of these actors to evaluate women entrepreneurs negatively compared to their male counterparts (Yang & Aldrich, 2014). These negatively biased evaluations have significant consequences for women entrepreneurs in terms of their ability to access financing (Brush, De Bruin, & Welter, 2009), use online platforms (Botelho & Abraham, 2017), pitch investors (Brooks, Huang, Kearney, & Murray, 2014), and innovate (Thébaud, 2015).

Institutional linkages can help mitigate some of the negative evaluations that stem from cultural beliefs about gender. As described earlier, affiliation with an institution acts as a signal of quality and alignment with business norms. This can confer legitimacy by association for the entrepreneur, as well as access to various resources through the institution. In perceiving this affiliation with the institution, actors' uncertainty about its quality may diminish. This means that market actors will have less of a need to rely on gendered cultural beliefs about entrepreneurship

in order to make their evaluations. As a result, market actors are more likely to evaluate entrepreneurs with less bias and more attention to the details of entrepreneurs' businesses.

Mitigating biased evaluations from a broad array of market actors can have many benefits for women entrepreneurs. It can lead to attracting more diverse and better qualified employees, who potentially perceive more prospects for learning and who contribute to increases in the productivity of the business. It can help attract more new clients, who evaluate the business more positively and drive sales for the business. There is also the potential of successfully attracting investors or accessing financing, which can enable the entrepreneur to invest in their business and expand into new markets.

Building on the insights from Hypothesis 1, which predicted that institutional linkages will increase the male proportion of business advisors for women entrepreneurs, women entrepreneurs should also benefit from a more gender diverse portfolio of advice relationships. In particular, with an institutional linkage they should have better access to information about market opportunities and better access to resources through male business advisors.

Institutional linkages are likely to significantly affect the way that various market actors evaluate women entrepreneurs in that mitigates the negative biases introduced by cultural beliefs about gender and entrepreneurship. As a result, in addition to the baseline benefits that institutional linkages are likely to have for all entrepreneurs associated with increased legitimacy, they should have a disproportionately large effect on women entrepreneurs' performance. For this reason, I hypothesize that:

Hypothesis 2: Women entrepreneurs will experience a greater increase in profits from institutional linkages than their male counterparts will.

EMPIRICAL SETTING: LEGAL REGISTRATION FOR BUSINESSES IN TOGO

One of the most important institutional linkages that entrepreneurs in developing countries can make is with tax authorities. By legally registering their business with government tax authorities they are committing to specific accounting norms and submitting their business to new standards of accountability. Although in more developed economies most entrepreneurs automatically register their businesses, in developing countries registration is not a given. Many entrepreneurs are unaware of the potential benefits of creating an affiliation with the government, some entrepreneurs are unable to complete the required steps to register, and some fear being overly taxed after registering (Portes & Haller, 2005). As a result, the majority of entrepreneurs operate without a legal tax status, as part of the informal sector (Schneider, 2012).

For a number of reasons, legal registration in a developing country is a compelling empirical setting for the study of institutional linkages, gender, and entrepreneurship. First, legal registration closely parallels the definition of institutional linkages. By definition, an institutional linkage is a formal association of a business with a legitimate institution, which is observable by third parties. In practice, legal registration represents a formal recognition of a business by governmental tax authorities, which are a legitimate entity, and represents the business' participation in the institution of the formal market. In addition to that, formal registration entails paperwork and the issuing of identification for the business which makes observation and verification of the linkage easy for third parties.

Second, there is growing empirical evidence that legal registration confers similar baseline benefits to entrepreneurs as posited by theory on institutional linkages. Specifically,

there is growing evidence that legally registering a business in a developing country is associated with increased profits, sales, and business growth (Fajnzylber, Maloney, & Montes-Rojas, 2011; Rand & Torm, 2012). These results have been tested across a variety of empirical settings in developing countries, establishing a significant amount of generalizability.

Third, in the case of Togo, there is evidence that legal registration of an entrepreneurs' business changes the way those entrepreneurs are perceived. In advance of data collection for this project I spoke with ten entrepreneurs who ran small businesses in Lomé, the capital of Togo, about the process of legally registration and how it affected their interactions. One entrepreneur reported that they felt that registration conveyed their trustworthiness:

> "People see for themselves the copy of my NIF (tax identification number) copied on the storefront that says it all: I am recognized by the state and I can be trusted." (F4, p4)

Another entrepreneur similarly conveyed how they perceived other businesses that were not registered:

> "First you need to note whether they [an entrepreneur] have a NIF for their business and if they don't then they shouldn't be trusted." (M7, p3)

Although many entrepreneurs are not legally registered, people are aware of what legal registration means and perceive it as a signal of legitimacy.

Togo is representative of developing economies where there are few legitimate economic actors and as a result the state plays an important role in legitimating small entrepreneurs. Togo is a small country in West Africa, located between Ghana and Benin, that is a former French colony. Income per capita is under two dollars per day, making it a highly impoverished country.

According to the World Bank the informal economy is prominent in Togo, as it accounts for approximately 90 percent of non-agricultural employment (World Bank 2019).

In Togo, the process of formally registering a business consists of four steps:

1. Registration of the business name with the Chamber of Commerce (Chambre de Commerce et d'Industrie du Togo).
2. Registration of the business with the tax authorities (Office Togolais des Recettes) and obtaining a tax identification number (Numéro d'identification fiscale).
3. Sign up for social security payments with the Caisse Nationale de Sécurités Sociales.
4. Announcement of the company's name on the Centre de Formalite's website.

The official cost of registering a business with the Chamber of Commerce is 26,400 XOF (approximately 45 USD), although there usually are additional fees related to notary services and bank statements. The World Bank estimates that it takes approximately four days in order to complete all the paperwork, which is slightly below the average of seven days for Sub-Saharan countries (World Bank 2019). In practice, registering one's business is considerably more complicated. Queues at the Chamber of Commerce are long and it's not guaranteed you'll be seen the same day you visit. The offices of the Chamber of Commerce are located in the old center of the city and transportation there is problematic. Entrepreneurs without their own means of transportation must rent a seat on a taxi or a moto-taxi, which can be expensive and time consuming. Even if entrepreneurs do get beyond these steps, corruption may create additional roadblocks for entrepreneurs.

METHODS

Data sources and sample

To investigate the gendered effects of institutional linkages on entrepreneurs in developing countries, I ran a survey of entrepreneurs in the capital of Togo, Lomé. Lomé is a city on the Gulf of Guinea in Togo, with about two million inhabitants it is the administrative and economic center of the country. During 2017 and 2018 I ran a survey that was designed to capture entrepreneurs' business performance, their business practices, ego-centric advice networks, embeddedness in local community and institutions, and legal status.

To participate in the survey entrepreneurs had to commit to being available to participate in the three waves of survey and their businesses must have been in operation for at least one year. The survey was made up of three waves, each conducted at six month intervals. The first wave took place in May 2017, the second in November 2017, and the third in May 2018. The survey was administered by a team of four management consultants, each with their own consulting firm in Lomé. Each of the consultants had over 15 years of experience consulting with businesses on behalf of various government agencies, local universities, and had conducted similar business surveys for the World Bank.

The survey included questions about the legal status of entrepreneurs' businesses, which can be considered sensitive. These questions were therefore only asked in the final wave, when surveyors had developed a relationship of trust with respondents and could assure them of the confidentiality of their responses. Each participant in the survey was visited in each wave of the survey by the same consultant, this helped wit the development of a relationship between the entrepreneur and the consultant. Moreover, to give back to participants and to discourage attrition, each consultant spent approximately 1 to 2 hours giving advice to the micro-business owner after they had filled out the survey.

Participants for the survey were solicited from two sources. The first was a list of participants assembled by three teams of canvassers that systematically visited all the major commercial districts of Lomé, about 90 neighborhoods in total, and approached all businesses that met the criteria to participate in the survey within those areas. After describing the survey and the goals of the survey, business owners were asked if they would be interested in participating. The list of business owners who desired to participate was handed off to the consultants administering the questionnaire. The canvassing process took 3 months of work. The three teams were made up of undergraduate students from the local university, who had been trained and provided with a script about the survey. At the end of each week they reconvened to compare notes on the districts visited and the businesses approached. The second source of participants was a business training program that was being held in Lomé and in which business owners were participating. Business owners in this training program were approached to participate in the survey. Contact information for all those who agreed were given to the team of consultants.

The first wave of the survey contained 321 entrepreneurs, of whom 319 participated in the second wave, and 319 in the last wave. This represents an attrition rate of X% from the sample, which does not raise significant cause for concern.

Dependent variables

There are two dependent variables relevant to testing the hypotheses. The first hypothesis stated the institutional linkage will lead to a higher proportion of male business advisors in women entrepreneurs' advice network. To test this the outcome variable used is the *proportion of men in entrepreneurs' advice network*. Following established survey network methods, I began by asking each entrepreneur to name up to five individuals with whom they discussed their business and from whom they asked for advice (B Vissa & Chacar, 2009). For each individual named, the

entrepreneur was asked whether they were a man or woman. The outcome variable was then constructed as the ratio of men to the total number of advisors in the entrepreneurs' portfolio.

The second hypothesis predicted that women entrepreneurs who register their businesses with tax authorities will experience larger increases in performance than their male counterparts. The outcome variable used to test this hypothesis is the entrepreneurs' *logged monthly profits*. Following common practice for small businesses in developing markets, entrepreneurs were asked what their profits were during the last month, which has been found to be a reliable estimate (De Mel et al., 2009b).

Independent variables

The main independent variables of interest in the analyses are whether the entrepreneurs' business was *registered at the Chamber of Commerce* and whether the entrepreneur was *female*. As mentioned earlier, becoming a fully registered business involves four steps. Each entrepreneur was asked about each step separately, except for paying the fees. With the exception of one entrepreneur, all those who were registered at the Chamber of Commerce, had a tax identification number (NIF). There were twelve entrepreneurs who had registered with the Chamber of Commerce, but not with social security and this was due to their not having any employees at the time. Therefore, I selected the registration at the Chamber of Commerce as the most accurate measure of formality for this population. The registration at the Chamber of Commerce variable is a dummy, which is equal to '1' if the entrepreneur's firm is registered and '0' otherwise.

The second independent variable of interest is entrepreneur's gender. Surveyors noted entrepreneurs' gender at the time of the first survey wave. *Female* is a dummy variable equal to '1' when the entrepreneur was female and '0' when male.

Control variables

In order to control for additional factors that might be affecting entrepreneurs' composition of advice relationships and their profits I included a series of control variables in the analyses.

The first control variable was a binary indicator for whether the entrepreneurs was *illiterate*. Each entrepreneurs was asked what their highest level of educational attainment was and entrepreneurs who had only completed primary school or less were categorized as functionally illiterate. Generally more educated entrepreneurs have higher odds of finding knowledgeable advisors for their businesses and register more sales.

The second control variable is the entrepreneur's *ethnic minority* status. During the first survey wave entrepreneurs were asked what language they speak at home, which is an indicator of their ethnic group. A dummy variable was created equal to '1' if the entrepreneur did not speak Ewe, the ethnic majority's language, at home and '0' if they did. The majority of respondents who were ethnic minorities were members of the Kabiye ethnicity, with a few cases of Yoruba ethnics.

Number of association meetings is a variable that measures the number of civic association meetings each entrepreneur attended over the previous six months. Civic associations include religious groups, non-governmental organizations, professional associations, and sports associations. Entrepreneurs are frequently members of such associations in order to gain better information about markets and to meet useful contacts. It is therefore important to control for entrepreneurs' associational life, which may greatly affect their ability to create a portfolio of adviser relationships.

Employee at established business is another control variable that helps capture entrepreneurs' access to potential advisers. This variable is a dummy that is equal to '1' when the

entrepreneur is working for an established business that they do not own, while simultaneously running their own business. The workplace can be an important source of contacts for entrepreneurs' and therefore needs to be controlled for (Sørensen & Sharkey, 2014).

Firm age was a variable that measures the number of years lapsed since the entrepreneur launched their business. More established businesses are likely to face less of a liability of newness penalty, which could enable them to form more new business relationships. This variable helps control for that contingency.

I also controlled for the *number of employees* each entrepreneur had. The number of employees is an indication of the size of the business, which may not only influence the entrepreneurs' ability to attract advisors, but it may also affect their sales performance.

Financial planning practices could also account for the composition of advice relationships that an entrepreneur possesses and they are very likely to affect profits. To control for this factor I included as a control variable the *financial practices score* for each entrepreneur in the survey. The index was developed by McKenzie and Woodruff (2018) and consists of seven items covering best practices for micro-businesses in developing markets in the area of financial planning.

The *logged distance from the nearest market* controls for how far the entrepreneurs' businesses are from a commercial center in Lomé, which could account for differences in the ability of the entrepreneur to network or to make sales. The measure was constructed by geolocating each business on a map using ArcGIS and measuring the distance from the nearest marketplace in a straight line. The measure was in kilometers.

Finally, the last control variable included in the analyses was the *number of local competitors*, which was the number of businesses within the same neighborhood that the

entrepreneur reported to be their competitors. This variable helps control for differences in the competitiveness of different neighborhoods.

I report the sample summary statistics and bivariate correlations in Table 4.1. The bivariate correlations show that the variables are related as we would expect them to be. Entrepreneurs with better financial planning practices performed better, as did entrepreneurs who were literate and who participated more in associations. The correlations do not give rise to concerns of multicollinearity in the regressions. The variance inflation factor (VIF) test reveals that the mean VIF was 2.37, indicating no cause for concern.

Table 4.1: Summary statistics and bivariate correlation matrix

		Mean	S.D.	1	2	3	4	5	6	7	8	9	10	11	12	13
1	Profits last month (log)	11.125	0.980													
2	Proportion of men in advice network	0.565	0.438	0.100												
3	Female	0.292	0.455	-0.018	-0.309											
4	registered at the Chamber of Commerce	0.306	0.461	0.282	0.076	-0.071										
5	Illiterate	0.334	0.472	-0.031	-0.129	0.062	-0.099									
6	Ethnic minority	0.105	0.307	-0.096	-0.095	0.135	-0.214	0.085								
7	Number of association meetings	14.400	10.777	0.048	0.059	-0.004	-0.082	-0.034	-0.012							
8	Employee at established business	0.067	0.251	0.037	0.082	-0.036	0.019	-0.155	0.110	-0.035						
9	Firm age	12.842	8.528	0.056	-0.055	0.054	0.034	0.368	-0.055	0.103	-0.174					
10	Number of employees	0.886	2.615	0.214	0.065	-0.010	0.228	-0.081	-0.069	0.024	0.042	-0.018				
11	financial practices score	0.409	0.264	0.291	0.151	-0.053	0.417	-0.278	-0.067	0.034	0.064	-0.047	0.282			
12	Distance from the nearest market (log)	7.370	0.862	-0.101	0.126	-0.173	-0.009	-0.054	-0.040	0.061	-0.010	-0.034	-0.029	0.046		
13	Number of local competitors	4.812	5.082	0.039	-0.112	0.095	-0.045	0.056	0.058	0.035	-0.035	0.093	-0.055	-0.063	-0.189	
14	Distance from Chamber of Commerce (log)	1.956	0.718	-0.079	0.116	-0.015	-0.056	-0.172	0.007	0.115	0.005	-0.149	0.027	0.123	0.453	-0.143

n = 958

Estimation approach

The outcomes of interest are longitudinal, while the main independent variables of interest – legal registration and gender - do not vary over time. Therefore all regressions were estimated using a generalized least squares approach with random effects. This approach assumes that each entrepreneur's business has its own average values, which differ from the population average. To account for unobserved heterogeneity I include survey wave, neighborhood, and sector fixed effects. Robust standard errors, clustered by entrepreneur, are reported.

RESULTS

Table 4.2 reports the regression results testing Hypotheses 1 and 2. The first hypothesis predicted that women entrepreneurs who legally registered their businesses would have a higher proportion of men in their network of business advisers. This is tested in Model 2 of Table 4.2 with the interaction term between female and registered at the Chamber of Commerce. The interaction term is positive and statistically significant. This indicates that women who are registered are more likely to have more men in their advice networks. Figure 4.1 confirms this by plotting the predicted proportion of men in entrepreneurs' network of advice relationships for men and women. The figure indicates that the proportion of men increases by about 15 percent for women that register. As a result Hypothesis 1 is confirmed.

The second hypothesis stated that women would benefit more from legally registering than their male counterparts. This is tested in model 4 of Table 4.2 with the interaction term between female and registered at the Chamber of Commerce. The coefficient is positive and statistically significant, indicating that women benefit more than men from legal registration.

This is also confirmed by Figure 4.2 where the slope of the effect of legal registration is steeper for women than it is for men. This provides empirical support for Hypothesis 2.

Table 4.2: Gender, legal registration, and performance

	proportion of men in advice network		Profits last month (log)	
	(1)	(2)	(3)	(4)
Registered at the Chamber of Commerce X Female		1.000*		0.908***
		(0.508)		(0.247)
Female	-0.809***	-1.096***	-0.069	-0.308*
	(0.237)	(0.269)	(0.123)	(0.132)
Registered at the Chamber of Commerce	-0.067	-0.363	0.396**	0.172
	(0.233)	(0.270)	(0.129)	(0.134)
Illiterate	-0.318	-0.312	0.040	0.046
	(0.246)	(0.246)	(0.117)	(0.113)
Ethnic minority	-0.189	-0.138	-0.261	-0.218
	(0.334)	(0.344)	(0.168)	(0.166)
Number of association meetings	-0.001	-0.001	0.009**	0.009**
	(0.007)	(0.007)	(0.003)	(0.003)
Employee at established business	0.522	0.560	0.117	0.126
	(0.309)	(0.315)	(0.161)	(0.161)
Firm age	-0.018	-0.016	0.003	0.005
	(0.014)	(0.013)	(0.006)	(0.006)
Number of employees	0.017	0.015	0.000	-0.004
	(0.031)	(0.031)	(0.024)	(0.023)
Financial practices score	0.566	0.596*	0.546***	0.557***
	(0.300)	(0.294)	(0.150)	(0.150)
Distance from the nearest market (log)	0.259	0.213	-0.117	-0.143
	(0.192)	(0.191)	(0.097)	(0.097)
Number of local competitors	0.006	0.005	0.003	0.004
	(0.014)	(0.014)	(0.009)	(0.009)

Note: n = 958. Survey wave, sector, and neighborhood dummy variables included in all models; constant estimated in each model but not shown. Robust standard errors clustered at the entrepreneur level shown in parentheses. * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Figure 4.1: The effect of legal formalization on the gender composition of women's advice network

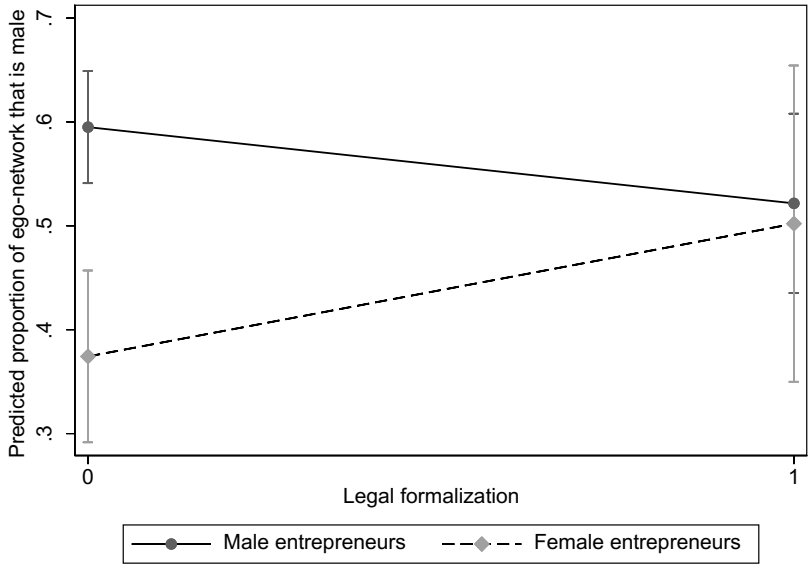
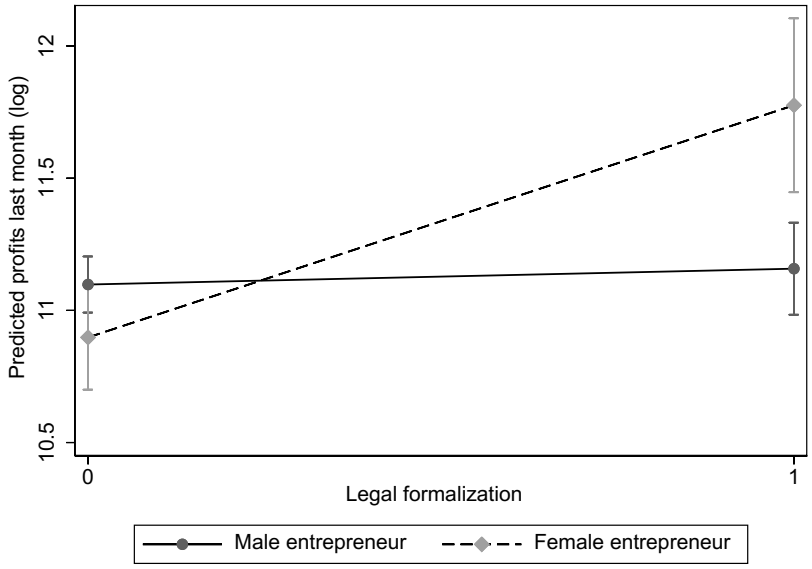


Figure 4.2: The effect of legal formalization on women's profits



ROBUSTNESS CHECKS

To ensure that the results were not susceptible to omitted variable bias, I ran all models including a set of additional control variables. Specifically, I included controls for whether the entrepreneur was married and the number of children they had. I also included controls for the size of entrepreneurs' advice network and whether their business owned a computer. Each control variable was included separately and in combination with the others and the results remained unchanged.

Furthermore, to ensure that the results were not influenced by measurement error in the dependent variable, I ran all models using monthly sales as the dependent variable, rather than monthly profits. All the results held unchanged.

INSTRUMENTAL VARIABLE APPROACH

Since the survey data on entrepreneurs' businesses and their registration provides only associational evidence of the relationship between formality and entrepreneurs' advice portfolios, I use an instrumental variable approach, adapted from McKenzie and Sakho (2010), that helps provide causal evidence of the relationship. In this approach, legal registration is instrumented by the businesses' distance in kilometers from the Chamber of Commerce. In Lomé, for an entrepreneur to register their business they must visit the Centre de Formalité, which is in the Chamber of Commerce building. The Chamber of Commerce is situated in the oldest part of the city of Lomé, near the old administrative district. In this location they can perform all four steps involved in the registration process described above. I obtained the geographic coordinates of the Chamber of Commerce and estimated the distance between each business' location and the Chamber of Commerce using the 'geodist' function in Stata, which reports the length of the

shortest distance between two points on the earth's coordinates system. Straight line distances are assumed to be a good approximation of the travel time and cost required to reach the Chamber of Commerce.

The identification strategy rests on two assumptions. First, that the distance of entrepreneurs' businesses from the Chamber of Commerce is correlated with their knowledge about how to register their business, their risk of being inspected (which would motivate registration), and the cost to them (in terms of transportation and time) to register their business. In other words, the further the entrepreneur is located from the Chamber of Commerce the less likely they are to know about how to register, the less motivation they will have to register, and the more it will cost to register. Therefore, the further an entrepreneur is located from the Chamber of Commerce the less likely we would expect them to be formally registered.

The second assumption, is that although the distance is correlated with formal registration it should not independently affect the entrepreneurs' size of advice portfolio or business performance, while controlling for other locational factors. Given that the Lomé Chamber of Commerce is located in the old center of the city, it is near many government offices and ministries, as well as one of Lomé's many outdoor markets, the Grand Marché. However, there are many other markets throughout the city, with each major neighborhood having its own outdoor market and centers of economic activity. Therefore, it is unlikely that that a disproportionate amount of business takes place near the Chamber of Commerce. Similarly, the population density is not particularly higher around the Chamber of Commerce, if anything the density of some of the newer neighborhoods of Lomé, near the outskirts are probably denser in population.

To understand the effect of legal registration on profits for entrepreneurs who are women I estimated instrumental variable regressions for samples split by entrepreneurs' gender. First,

because there are more men than women in the sample, I limited the sample to only women entrepreneurs. Then I used coarsened exact matching (CEM) with the control variables to find a balanced control group that is made up of only men. Model 1 of Table 4.3 presents the MLE of the instrumental variable regression for only women entrepreneurs. The effect is positive and statistically significant. Model 2 of Table 4.3 presents the same model estimated on the matched subsample of male entrepreneurs, the effect of registration is not statistically significant. When this model is estimated for the entire subsample of male entrepreneurs the effect is still not statistically significant. These results mirror those found in the random effects regressions, where the positive effect of registration on profits was mainly driven by female entrepreneurs and therefore support Hypothesis 2.

Table 4.3: Instrumental variable regression with matching

	Women entrepreneurs	Men entrepreneurs
	Profits	Profits
	(1)	(2)
Registered at the Chamber of Commerce	1.125**	1.020
	(0.340)	(0.738)
Illiterate	0.344*	0.001
	(0.138)	(0.150)
Ethnic minority	0.201	-0.102
	(0.201)	(0.269)
Number of association meetings	0.017*	0.013
	(0.007)	(0.007)
Employee at established business	0.408	-0.010
	(0.283)	(0.223)
Firm age	0.007	-0.006
	(0.008)	(0.011)
Number of employees	0.052	0.014
	(0.039)	(0.025)
Financial practices score	0.840**	0.129
	(0.304)	(0.579)
Distance from the nearest market (log)	-0.064	-0.139
	(0.060)	(0.071)
Number of local competitors	0.007	-0.020
	(0.009)	(0.016)
First stage chi squared	181.24***	201.97***

Note: N = 274. Survey wave, sector, and neighborhood dummy variables included in all models; constant estimated in each model but not shown. Robust standard errors clustered at the entrepreneur level shown in parentheses. * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

DISCUSSION

In this study I have examined how the legal registration of women entrepreneurs' businesses affects the composition of their advice relationships and their business performance. Using data from a longitudinal survey of entrepreneurs in Lomé, Togo, I found that although the average effect registration on performance, across all entrepreneurs, is positive, this effect is mainly driven by women entrepreneurs. In other words, the main beneficiaries of legal registration are women, rather than men. These results were replicated using an instrumental variables approach, where registration was instrumented by the distance

from the Chamber of Commerce, which is the location that entrepreneurs must visit to register their businesses. These results help contribute to the study of institutional linkages, gender, and entrepreneurship in developing markets.

Despite a long tradition in the study of informal markets, recent research on this phenomenon has been scarce. In this study, I show that the performance effects of formal registration are not distributed equally among entrepreneurs, women tend to benefit significantly more than men from registering their businesses. Part of the reason why this seems to be the case is that participation in the formal institution affects the activation of cultural beliefs about the abilities of women as entrepreneurs. This emphasizes the fact that the interplay between formal institutions and cultural beliefs is complex and must be taken into account.

This study also helps contribute to research on gender. The empowerment of women is a central development goal in and of itself, as well as part of broader economic development policies (Duflo, 2012). However, research has not found many ways to boost women's entrepreneurial success. Studies have shown that financial investments and education programs can have some limited effects, but the current study shows that legal registration can have a significant impact on women entrepreneurs' profits. This indicates that perhaps measures that are aimed at mitigating negative cultural beliefs about women are more successful than interventions that are structured as infusions of financial or human capital.

Finally, this study also contributes to the study of entrepreneurship in developing markets. Developing markets often have weak formal institutions that facilitate market transactions and therefore entrepreneurs tend to face a lot of skepticism from audiences. This can be particularly difficult for women entrepreneurs who already face discrimination. This study helps to show that the institutional inclusion of different actors can affect the way uncertainty in interactions plays out and affects entrepreneurial performance.

Conclusion

This study shows that not all entrepreneurs benefit equally from legal registration. The evidence suggests that it disproportionately benefits women entrepreneurs. In terms of policy implications, the results from this study should be used to inform public policy about encouraging entrepreneurs to legally register their businesses. Given the additional gains for women, public policies should target them and provide them with the resources they need to register.

Chapter 5.

Conclusion

Contrary to entrepreneurs in developed economies, whose goal is often to innovate and disrupt markets, many entrepreneurs in low resource environments are mainly trying to survive. The difference in goals isn't a reflection of disparities in ability or ambition, but rather a reflection of the vastly different realities in which they work. Research in organization theory has only begun to scratch the surface of entrepreneurial environments in developing countries and to understand the various barriers that entrepreneurs contend with in those places. My dissertation has looked at three specific issues which matter to entrepreneurs in low resource environments: building business relationships, withstanding political violence, and choosing to legally register a business.

The first study explores relationship formation among entrepreneurs and its implications for the performance of their businesses. The study specifically looks at the role of framing interactions cooperatively in order to encourage the formation of new business relationships among entrepreneurs. Using a field experiment, I showed that cooperative frames increase the propensity of entrepreneurs to form new relationships and that these relationships help increase the performance of their businesses.

The second study looks at the effects of violent protests on the performance of entrepreneurs' businesses, when those businesses are not explicitly targeted by protesters. The data suggest that close proximity to violent protests can significantly harm business profits. However, there are strategies that entrepreneurs can use to mitigate these losses. First, entrepreneurs who are involved in their community have more of a support basis to call upon for help during these times. Second, entrepreneurs with advice relationships to peer entrepreneurs tend to able to

receive critical information and learn practices to better withstand the violent protests. Collectively I label these two factors 'entrepreneur social resilience.'

The final study of the dissertation looks at which entrepreneurs benefit from legally registering their businesses with the government. In developing countries, the majority of entrepreneurs operate in informal markets, outside the scope of the law. Although on average the effect of registration is positive for entrepreneurs, the effect differs by entrepreneurs' social characteristics, in particular their gender. For women entrepreneurs, the benefits of registering are higher than for men. The difference in effects is explained by how registration can dampen audiences' reliance on cultural beliefs about women and business.

Although each study makes its own contributions to various literatures, I believe that the main contribution of this dissertation as a whole is to draw attention to the need for OT research on entrepreneurs in low resource environments. Many of the factors that shape their environment – in this dissertation I highlighted business relationships, violent protests, and legal registration – remain relatively understudied. Yet, in studying them we not only add to the richness of existing organization theories, we also find that they are relevant to entrepreneurs in developed economies as well.

Here are some of the factors that I believe play a major role in shaping market dynamics in low resource environments but remain relatively understudied:

1. Ethnic diversity

   The ethnic diversity in some countries is staggering and this is particularly true in Africa where many different ethnic groups were forcefully brought together by colonizers. Ethnic diversity brings with it immense complexity in the way people exchange and work together. Entrepreneurs in developing markets must manage this complexity inside and

outside their businesses. Management research could contribute to understanding the tensions and exploring ways to mitigate it. Lessons from this research are becoming increasingly relevant to entrepreneurs in developed markets, as mass migration and refugee crises change the demographic composition of developed countries.

2. Cultural beliefs about gender

   The study of gender and entrepreneurship is rapidly growing in developed country contexts, but it remains understudied in developing markets. I think it would be a mistake to assume that cultural beliefs about gender work similarly in Africa or India or China as they do in North America, and so we need more studies to understand gender in these new contexts.

3. Mass migration

   Mass migration is quickly changing the demographics of many developed countries, while also changing the economic landscapes of the countries that migrants leave. I think there are many important questions that will need to be answered regarding what happens to markets where a large proportion of young people leave. What are entrepreneurial opportunities like? Does entrepreneurship depend on remittances? What happens when migrants return, do they create more opportunities?

4. Conflict, violence, and organized crime

   Criminal economies are difficult to study, but in developing countries they can be important economic forces that are closely intertwined with legitimate economic activity.

Economies are made up of legal, illegal but legitimate, and illegal and illegitimate markets, and all three are connected. In developing countries criminal economies may be particularly influential. What kinds of effects do they have on market opportunities, the growth of entrepreneurial ventures, and the personal security of entrepreneurs?

5. Technology

   New technologies are rapidly reshaping markets in both developed and developing countries. The kinds of technologies that impact developing markets are generally different from those affecting developing markets, they are simpler and more amenable to 'hacks.' Yet, surprisingly, there haven't been many rigorous studies of technology and entrepreneurship in developing markets.

6. Subsistence vs disruptive entrepreneurship

   The vast majority of entrepreneurship in developing countries is subsistence entrepreneurship, meaning that it aims to provide a sustainable income to the business owner. By contrast, disruptive entrepreneurship aims to create a new market or disrupt the way business is done in an existing market. Disruptive entrepreneurs do exist in developing markets, but they lack the resources needed to bring their ideas to market and effect the change they are aiming for. There is, therefore, a need for research on how to identify disruptive entrepreneurs and how to enable them to achieve their goals.

In addition to these themes, I hope to also explore certain topics at the intersection of social networks and entrepreneurship in low resource environments.

1. There are limits to individuals' abilities to perceive social networks and their positions in them (Casciaro 1998). Can external summary information about their networks and simple recommendations related to these motivate entrepreneurs to expand and diversify their networks? Also, how does this effect differ when it is framed as an instrumental process of acquiring resources vs a collaborative exchange of help? Is this information more effective when entrepreneurs are given the option to connect directly with others or indirectly at a space of interaction?
2. Spaces of interaction are critical to how entrepreneurs form relationships, yet they remain understudied. Spaces of interaction, or foci, have both a structural component and a cultural component, both of which influence the way actors in those spaces interact and communicate. These patterns then determine how new connections are formed and how they are maintained over time. I think there is a lot of scope for new research that looks at how different norms at the interaction-space level can spur the diversity and meaningfulness of interactions.
3. How do entrepreneurs "click" with other market actors (such as investors or consultants)? Meetings with investors and with prospective consultants can be stressful. I'm curious about what exactly makes entrepreneurs click with different actors. If we take homophily and propinquity out of the equation, is is it a purely instrumental evaluation? Is there a communication component? If so, what is it? Is there an emotional or status component? These interactions are incredibly complex and they are at the foundation of how these important ties are formed, as a result they have a lot of consequences later on. What does it look like, in terms of communication, when an entrepreneur and another business actor

"click" or feel like they've made a connection. Does it matter at all for the formation of a relationship?

4. How do entrepreneurs form relationships with people from different cultures? How do they navigate culturally diverse environments? That is, how do they communicate with others who might come from different cultures or socio-economic backgrounds? What factors can enable this communication and do they improve economic outcomes? As migration flows increase the world is becoming increasingly diverse and being able to form a productive working relationship with someone from a different culture is important.

As our understanding of modern firms and organizations changes in developed markets, our understanding of what organizations look like and how they operate in low resource environments must also evolve. I hope that this dissertation has, to some extent, made the case that organization theorists should take an interest in entrepreneurs and organizations in low resource environments and that pursuing research questions in those contexts is a rewarding endeavor.

References

Abebe, G., Caria, S., Fafchamps, M., Falco, P., Franklin, S., Quinn, S., & Shilpi, F. (2017). Job Fairs: Matching Firms and Workers in a Field Experiment in Ethiopia. *World Bank Working Paper*.

Abraham, M. (2019). Gender-role Incongruity and Audience-based Gender Bias: An Examination of Networking among Entrepreneurs. *Administrative Science Quarterly*, 0001839219832813.

ACLED. (2019). *ACLED 2018: The year in review*. Armed Conflict Location & Event Data Project. Madison, WI. Retrieved from https://www.acleddata.com/2019/01/11/acled-2018-the-year-in-review/

Acquaah, M. (2007). Managerial social capital, strategic orientation, and organizational performance in an emerging economy. *Strategic Management Journal, 28*(12), 1235-1255.

Acquaah, M. (2012). Social networking relationships, firm-specific managerial experience and firm performance in a transition economy: A comparative analysis of family owned and nonfamily firms. *Strategic Management Journal, 33*(10), 1215-1228.

Aldrich, D. P., & Meyer, M. A. (2015). Social capital and community resilience. *American Behavioral Scientist, 59*(2), 254-269.

Aldrich, H. E., & Elam, A. B. (1997). Strong ties, weak ties and strangers: do women owners differ from men in their use of networking to obtain assistance? *Entrepreneurship in a global context* (pp. 15-39): Routledge.

Allison, P. D. (1999). *Multiple Regression: A Primer*. Thousand Oaks, CA: Pine Forge Press.

Amnesty International. (2018a). Amnesty International Report Togo Human Rights 2017/18. Retrieved from https://www.amnesty.org/en/countries/africa/togo/report-togo/

Amnesty International. (2018b). Togo: Spiraling violence and repressive cybersecurity law hit the country ahead of contested parliamentary elections. Retrieved from https://www.amnesty.org/en/latest/news/2018/12/togo-spiraling-violence-and-repressive-cybersecurity-law/

Amodio, F., & Di Maio, M. (2017). Making do with what you have: Conflict, input misallocation and firm performance. *Economic Journal, 128*(615), 2559-2612.

Anderson, S. J., Chandy, R., & Zia, B. (2018). Pathways to profits: the impact of marketing vs. finance skills on business performance. *Management Science, 64*(12), 5559-5583.

Anthony, D. (2005). Cooperation in microcredit borrowing groups: Identity, sanctions, and reciprocity in the production of collective goods. *American Sociological Review, 70*(3), 496-515.

Armanios, D. E., Eesley, C. E., Li, J., & Eisenhardt, K. M. (2017). How entrepreneurs leverage institutional intermediaries in emerging economies to acquire public resources. *Strategic Management Journal, 38*(7), 1373-1390.

Assenova, V. A., & Sorenson, O. (2017). Legitimacy and the benefits of firm formalization. *Organization Science, 28*(5), 804-818.

Atkin, D., Khandelwal, A. K., & Osman, A. (2017). Exporting and firm performance: Evidence from a randomized experiment. *Quarterly Journal of Economics, 132*(2), 551-615.

Ault, J. K., & Spicer, A. (2014). The institutional context of poverty: State fragility as a predictor of cross-national variation in commercial microfinance lending. *Strategic Management Journal, 35*(12), 1818-1838.

Axelrod, R. M. (1984). *The complexity of cooperation: Agent-based models of competition and collaboration*: Princeton University Press.

Batjargal, B., Hitt, M. A., Tsui, A. S., Arregle, J.-L., Webb, J. W., & Miller, T. L. (2013). Institutional polycentrism, entrepreneurs' social networks, and new venture growth. *Academy of Management Journal, 56*(4), 1024-1049.

Battilana, J., Sengul, M., Pache, A.-C., & Model, J. (2015). Harnessing productive tensions in hybrid organizations: The case of work integration social enterprises. *Academy of Management Journal, 58*(6), 1658-1685.

Baudains, P., Braithwaite, A., & Johnson, S. D. (2013). Target choice during extreme events: A discrete spatial choice model of the 2011 London riots. *Criminology, 51*(2), 251-285.

Baum, J. A., & Mezias, S. J. (1993). Competition, institutional linkages, and organizational growth. *Social Science Research, 22*(2), 131-164.

Baum, J. A., & Oliver, C. (1991). Institutional linkages and organizational mortality. *Administrative Science Quarterly*, 187-218.

Baum, J. A., & Oliver, C. (1992). Institutional embeddedness and the dynamics of organizational populations. *American Sociological Review*, 540-559.

BBC. (2017, 18 April). Ethiopia rights body: 'More than 600 protest deaths'. *BBC.* Retrieved from https://www.bbc.com/news/world-africa-39619979

Beaman, L., Chattopadhyay, R., Duflo, E., Pande, R., & Topalova, P. (2009). Powerful women: does exposure reduce bias? *The Quarterly Journal of Economics, 124*(4), 1497-1540.

Beaman, L., Duflo, E., Pande, R., & Topalova, P. (2012). Female leadership raises aspirations and educational attainment for girls: A policy experiment in India. *Science, 335*(6068), 582-586.

Bearak, M. (2017). One family has ruled Togo for 50 years. Huge protests are shaking its grip on power. *Washington Post.* Retrieved from https://www.washingtonpost.com/news/worldviews/wp/2017/09/13/one-family-has-ruled-togo-for-50-years-huge-protests-are-shaking-their-grip-on-power/?utm_term=.bfe7d5dd4178

Berk, R. A., & Aldrich, H. (1972). Patterns of vandalism during civil disorders as an indicator of selection of targets. *American Sociological Review, 37*(5), 533-547.

Besley, T., & Persson, T. (2011). The logic of political violence. *Quarterly Journal of Economics, 126*(3), 1411-1445.

Blau, P. M. (1964). *Exchange and power in social life*: Transaction Publishers.

Bloom, N., & Van Reenen, J. (2010). Why do management practices differ across firms and countries? *Journal of Economic Perspectives, 24*(1), 203-224.

Blumenstock, J., Ghani, T., Herskowitz, S., Kapstein, E. B., Scherer, T., & Toomet, O. (2018). *Insecurity and industrial organization: Evidence from Afghanistan*. Policy Research Working Paper 8301. World Bank. Washington, D.C. Retrieved from http://documents.worldbank.org/curated/en/929591516198334068/Insecurity-and-industrial-organization-evidence-from-Afghanistan

Bodea, C., & Elbadawi, I. A. (2008). *Political violence and economic growth*. Policy research working paper 4692. World Bank. Washington, D.C.

Botelho, T. L., & Abraham, M. (2017). Pursuing quality: how search costs and uncertainty magnify gender-based double standards in a multistage evaluation process. *Administrative Science Quarterly, 62*(4), 698-730.

Brooks, A. W., Huang, L., Kearney, S. W., & Murray, F. E. (2014). Investors prefer entrepreneurial ventures pitched by attractive men. *Proceedings of the National Academy of Sciences, 111*(12), 4427-4431.

Brush, C. G., & Cooper, S. Y. (2012). Female entrepreneurship and economic development: An international perspective. *Entrepreneurship & Regional Development, 24*(1-2), 1-6.

Brush, C. G., De Bruin, A., & Welter, F. (2009). A gender-aware framework for women's entrepreneurship. *International Journal of Gender and entrepreneurship, 1*(1), 8-24.

Burt, R. S. (1992). *Structural holes: The social structure of competition*: Harvard university press.

Cameron, A. C., & Trivedi, P. K. (2009). Microeconometrics with STATA. *College Station, TX: StataCorp LP*.

Castellacci, F. (2015). Institutional voids or organizational resilience? Business groups, innovation, and market development in Latin America. *World Development, 70*, 43-58.

Castells, M., & Portes, A. (1989). World underneath: The origins, dynamics, and effects of the informal economy. *The informal economy: Studies in advanced and less developed countries, 12*.

Chakrabarti, A. (2015). Organizational adaptation in an economic shock: The role of growth reconfiguration. *Strategic Management Journal, 36*(11), 1717-1738.

Chatterji, A., Delecourt, S., Hasan, S., & Koning, R. M. (2018). When Does Advice Impact Startup Performance? *Strategic Management Journal, 40*(3), 331-356.

Chung, S., Singh, H., & Lee, K. (2000). Complementarity, status similarity and social capital as drivers of alliance formation. *Strategic Management Journal*, 1-22.

Cress, D. M., & Snow, D. A. (2000). The outcomes of homeless mobilization: The influence of organization, disruption, political mediation, and framing. *American Journal of Sociology, 105*(4), 1063-1104.

Dahlander, L., & McFarland, D. A. (2013). Ties that last: Tie formation and persistence in research collaborations over time. *Administrative Science Quarterly, 58*(1), 69-110.

Dai, L., Eden, L., & Beamish, P. W. (2017). Caught in the crossfire: Dimensions of vulnerability and foreign multinationals' exit from war-afflicted countries. *Strategic Management Journal, 38*(7), 1478-1498.

Datta, P. B., & Gailey, R. (2012). Empowering women through social entrepreneurship: Case study of a women's cooperative in India. *Entrepreneurship Theory and Practice, 36*(3), 569-587.

Davis, A. E., Renzulli, L. A., & Aldrich, H. E. (2006). Mixing or matching? The influence of voluntary associations on the occupational diversity and density of small business owners' networks. *Work and Occupations, 33*(1), 42-42.

Davis, G. F., McAdam, D., Scott, W. R., & Zald, M. N. (2005). *Social Movements and Organization Theory*. Cambridge, U.K.: Cambridge University Press.

De Mel, S., McKenzie, D., & Woodruff, C. (2009a). Are women more credit constrained? Experimental evidence on gender and microenterprise returns. *American Economic Journal: Applied Economics, 1*(3), 1-32.

De Mel, S., McKenzie, D. J., & Woodruff, C. (2009b). Measuring microenterprise profits: Must we ask how the sausage is made? *Journal of Development Economics, 88*(1), 19-31.

della Porta, D. (2006). *Social Movements, Political Violence, and the State: A Comparative Analysis of Italy and Germany*. Cambridge, U.K.: Cambridge University Press.

della Porta, D. (2013). Policing protest. In D. A. Snow, D. della Porta, B. Klandermans, & D. McAdam (Eds.), *Wiley-Blackwell Encyclopedia of Social and Political Movements*. Hoboken, NJ: Wiley-Blackwell.

Dess, G. G., & Beard, D. W. (1984). Dimensions of organizational task environments. *Administrative Science Quarterly, 29*(1), 52-73.

Diehl, D., & McFarland, D. A. (2012). Classroom ordering and the situational imperatives of routine and ritual. *Sociology of education, 85*(4), 326-349.

Dorobantu, S., Aguilera, R. V., Luo, J., & Milliken, F. J. (2018). Introduction: Contemplating the Connections between Sustainability, Stakeholder Governance, and Corporate Social Responsibility *Sustainability, Stakeholder Governance, and Corporate Social Responsibility* (pp. 1-14): Emerald Publishing Limited.

Dorobantu, S., Henisz, W. J., & Nartey, L. (2017). Not all sparks light a fire: Stakeholder and shareholder reactions to critical events in contested markets. *Administrative Science Quarterly, 62*(3), 561-597.

Down, S., & Reveley, J. (2004). Generational encounters and the social formation of entrepreneurial identity:'young guns' and 'old farts'. *Organization and Environment, 11*(2), 233-250.

Downey, L. (2006). Environmental racial inequality in Detroit. *Social forces, 85*(2), 771-796.

Drexler, A., Fischer, G., & Schoar, A. (2014). Keeping it simple: Financial literacy and rules of thumb. *American Economic Journal: Applied Economics, 6*(2), 1-31.

Duflo, E. (2012). Women empowerment and economic development. *Journal of Economic Literature, 50*(4), 1051-1079.

Dutt, N., Hawn, O., Vidal, E., Chatterji, A., McGahan, A., & Mitchell, W. (2016). How open system intermediaries address institutional failures: The case of business incubators in emerging-market countries. *Academy of Management Journal, 59*(3), 818-840.

Dutta, S. (2017). Creating in the crucibles of nature's fury: Associational diversity and local social entrepreneurship after natural disasters in California, 1991–2010. *Administrative Science Quarterly, 62*(3), 443-483.

Fafchamps, M. (2006). Development and social capital. *The Journal of Development Studies, 42*(7), 1180-1198.

Fafchamps, M., & Quinn, S. (2015). Networks and Manufacturing Firms in Africa: Results from a Randomized Field Experiment. *The World Bank Economic Review*.

Fajnzylber, P., Maloney, W. F., & Montes-Rojas, G. V. (2011). Does formality improve micro-firm performance? Evidence from the Brazilian SIMPLES program. *Journal of Development Economics, 94*(2), 262-276.

Feld, S. L. (1981). The focused organization of social ties. *American Journal of Sociology, 86*(5), 1015-1035.

Field, E., Jayachandran, S., & Pande, R. (2010). Do traditional institutions constrain female entrepreneurship? A field experiment on business training in India. *American Economic Review, 100*(2), 125-129.

Fisman, R., & Khanna, T. (1999). Is trust a historical residue? Information flows and trust levels. *Journal of Economic Behavior & Organization, 38*(1), 79-92.

Frey, R. S., Dietz, T., & Kalof, L. (1992). Characteristics of successful American protest groups: Another look at Gamson's strategy of social protest. *American Journal of Sociology, 98*(2), 368-387.

Fung, A. (2003). Associations and democracy: Between theories, hopes, and realities. *Annual Review of Sociology, 29*(1), 515-539.

Gamson, W. A. (2004). Bystanders, public opinion, and the media. In D. A. Snow, S. Soule, & H. Kriesi (Eds.), *Blackwell companion to social movements* (pp. 242-261). Oxford, UK: Blackwell Publishing.

Gao, C., Zuzul, T., Jones, G., & Khanna, T. (2017). Overcoming Institutional Voids: A Reputation-Based View of Long-Run Survival. *Strategic Management Journal, 38*(11), 2147-2167.

Geertz, C. (1978). The bazaar economy: Information and search in peasant marketing. *The American economic review, 68*(2), 28-32.

George, G., Corbishley, C., Khayesi, J. N., Haas, M. R., & Tihanyi, L. (2016). Bringing Africa in: Promising directions for management research. *Academy of Management Journal, 59*(2), 377-393.

George, G., Kotha, R., Parikh, P., Alnuaimi, T., & Bahaj, A. S. (2016). Social structure, reasonable gain, and entrepreneurship in Africa. *Strategic Management Journal, 37*(6), 1118-1131.

Gerber, A., Arceneaux, K., Boudreau, C., Dowling, C., Hillygus, S., Palfrey, T., . . . Hendry, D. J. (2014). Reporting guidelines for experimental research: A report from the experimental research section standards committee. *Journal of Experimental Political Science, 1*(1), 81-98.

Ghani, E., Kerr, W. R., & O'connell, S. D. (2013). Local industrial structures and female entrepreneurship in India. *Journal of Economic Geography, 13*(6), 929-964.

Gibbons, R., & Henderson, R. (2012). Relational contracts and organizational capabilities. *Organization Science, 23*(5), 1350-1364.

Giugni, M. G. (1998). Was it worth the effort? The outcomes and consequences of social movements. *Annual Review of Sociology, 24*(1), 371-393.

Goffman, E. (1974). *Frame analysis: An essay on the organization of experience*. Cambridge, MA: Harvard University Press.

Goodman-Bacon, A. (2018). *Difference-in-Differences with Variation in Treatment Timing*. Research Working Paper Series 10.3386/w25018. National Bureau of Economic. Cambridge, MA.

Greenberg, J., & Mollick, E. (2017). Activist choice homophily and the crowdfunding of female founders. *Administrative Science Quarterly, 62*(2), 341-374.

Greif, A. (1993). Contract enforceability and economic institutions in early trade: The Maghribi traders' coalition. *The American economic review*, 525-548.

Greve, A., & Salaff, J. W. (2003). Social networks and entrepreneurship. *Entrepreneurship Theory and Practice, 28*(1), 1-22.

Grossman, E. B., Yli-Renko, H., & Janakiraman, R. (2012). Resource search, interpersonal similarity, and network tie valuation in nascent entrepreneurs' emerging networks. *Journal of Management, 38*(6), 1760-1787.

Hallen, B. L. (2008). The causes and consequences of the initial network positions of new organizations: From whom do entrepreneurs receive investments? *Administrative Science Quarterly, 53*(4), 685-718.

Hallen, B. L., & Eisenhardt, K. M. (2012). Catalyzing strategies and efficient tie formation: how entrepreneurial firms obtain investment ties. *Academy of Management Journal, 55*(1), 35-70.

Hansen, M. T., Podolny, J. M., & Pfeffer, J. (2001). So many ties, so little time: A task contingency perspective on corporate social capital in organizations *Social capital of organizations* (pp. 21-57): Emerald Group Publishing Limited.

Hardin, R. (2002). *Trust and Trustworthiness*. New York, NY: Russell Sage Foundation.

Haveman, H. A. (1992). Between a rock and a hard place: Organizational change and performance under conditions of fundamental environmental transformation. *Administrative Science Quarterly, 37*(1), 48-75.

Henisz, W. J., Mansfield, E. D., & Von Glinow, M. A. (2010). Conflict, security, and political risk: International business in challenging times. *Journal of International Business Studies, 41*(5), 759-764.

Hess, D., & Martin, B. (2006). Repression, backfire, and the theory of transformative events. *Mobilization, 11*(2), 249-267.

Hiatt, S. R., Carlos, W. C., & Sine, W. D. (2018). Manu Militari: The institutional contingencies of stakeholder relationships on entrepreneurial performance. *Organization Science, 29*(4), 633-652.

Hiatt, S. R., & Sine, W. D. (2014). Clear and present danger: Planning and new venture survival amid political and civil violence. *Strategic Management Journal, 35*(5), 773-785.

Hjort, J. (2014). Ethnic divisions and production in firms. *Quarterly Journal of Economics, 129*(4), 1899-1946.

Homans, G. C. (1958). Social behavior as exchange. *American Journal of Sociology, 63*(6), 597-606.

Hoskisson, R. E., Eden, L., Lau, C. M., & Wright, M. (2000). Strategy in emerging economies. *Academy of Management Journal, 43*(3), 249-267.

Huang, L., & Knight, A. P. (2017). Resources and relationships in entrepreneurship: an exchange theory of the development and effects of the entrepreneur-investor relationship. *Academy of Management Review, 42*(1), 80-102.

Ibarra, H. (1992). Homophily and differential returns: Sex differences in network structure and access in an advertising firm. *Administrative Science Quarterly*, 422-447.

Ibarra, H. (1993). Personal networks of women and minorities in management: A conceptual framework. *Academy of Management Review, 18*(1), 56-87.

Ibarra, H. (1997). Paving an alternative route: Gender differences in managerial networks. *Social psychology quarterly*, 91-102.

IEP. (2019). *Global Peace Index: Measuring peace in a complex world*. Institute for Economics and Peace. Sydney.

Ingram, P., & Morris, M. W. (2007). Do people mix at mixers? Structure, homophily, and the "life of the party". *Administrative Science Quarterly, 52*(4), 558-585.

Ingram, P., & Roberts, P. W. (2000). Friendships among competitors in the Sydney hotel industry. *American Journal of Sociology, 106*(2), 387-423.

Ingram, P., & Yue, L. Q. (2008). Structure, Affect and Identity as Bases of Organizational Competition and Cooperation. *Academy of Management Annals, 2*(1), 275-303.

Jennings, J. E., & Brush, C. G. (2013). Research on women entrepreneurs: challenges to (and from) the broader entrepreneurship literature? *The Academy of Management Annals, 7*(1), 663-715.

Kacperczyk, A. J. (2013). Social influence and entrepreneurship: The effect of university peers on entrepreneurial entry. *Organization Science, 24*(3), 664-683.

Kalnins, A., & Chung, W. (2006). Social capital, geography, and survival: Gujarati immigrant entrepreneurs in the US lodging industry. *Management Science, 52*(2), 233-247.

Khanna, T., & Palepu, K. G. (2010). *Winning in emerging markets: A road map for strategy and execution*: Harvard Business Press.

Kim, P. H., & Aldrich, H. E. (2005). Social capital and entrepreneurship. *Foundations and Trends® in Entrepreneurship, 1*(2), 55-104.

King, B. G. (2011). The tactical disruptiveness of social movements: Sources of market and mediated disruption in corporate boycotts. *Social Problems, 58*(4), 491-517.

Kleinbaum, A. M., Stuart, T. E., & Tushman, M. L. (2013). Discretion within constraint: Homophily and structure in a formal organization. *Organization Science, 24*(5), 1316-1336.

Kogut, B., & Zander, U. (1992). Knowledge of the firm, combinative capabilities, and the replication of technology. *Organization Science, 3*(3), 383-397.

Kossinets, G., & Watts, D. J. (2009). Origins of homophily in an evolving social network. *American Journal of Sociology, 115*(2), 405-450.

Kuhn, K. M., & Galloway, T. L. (2015). With a little help from my competitors: Peer networking among artisan entrepreneurs. *Entrepreneurship Theory and Practice, 39*(3), 571-600.

Kwon, S.-W., Heflin, C., & Ruef, M. (2013). Community social capital and entrepreneurship. *American Sociological Review, 78*(6), 980-1008.

Lamont, M., Small, M. L., & Harding, D. J. (2010). Introduction: Reconsidering Culture and Poverty.

Larson, A. (1992). Network dyads in entrepreneurial settings: A study of the governance of exchange relationships. *Administrative Science Quarterly, 37*(1), 76-104.

Lazarsfeld, P. F., & Merton, R. K. (1954). Friendship as a social process: A substantive and methodological analysis *Freedom and control in modern society* (Vol. 18, pp. 18-66).

Lerner, J., & Malmendier, U. (2013). With a little help from my (random) friends: Success and failure in post-business school entrepreneurship. *Review of Financial Studies, 26*(10), 2411-2452.

Li, S. X., & Rowley, T. J. (2002). Inertia and evaluation mechanisms in interorganizational partner selection: Syndicate formation among US investment banks. *Academy of Management Journal, 45*(6), 1104-1119.

Luders, J. (2006). The economics of movement success: Business responses to civil rights mobilization. *American Journal of Sociology, 111*(4), 963-998.

Lundvall, K., & Battese, G. E. (2000). Firm size, age and efficiency: evidence from Kenyan manufacturing firms. *Journal of Development Studies, 36*(3), 146-163.

Luo, X. R., & Chung, C.-N. (2013). Filling or abusing the institutional void? Ownership and management control of public family businesses in an emerging market. *Organization Science, 24*(2), 591-613.

Mair, J., & Marti, I. (2009). Entrepreneurship in and around institutional voids: A case study from Bangladesh. *Journal of Business Venturing, 24*(5), 419-435.

Mair, J., Marti, I., & Ventresca, M. J. (2012). Building inclusive markets in rural Bangladesh: How intermediaries work institutional voids. *Academy of Management Journal, 55*(4), 819-850.

Marlow, S., & Patton, D. (2005). All credit to men? Entrepreneurship, finance, and gender. *Entrepreneurship Theory and Practice, 29*(6), 717-735.

Marquis, C., & Battilana, J. (2009). Acting globally but thinking locally? The enduring influence of local communities on organizations. *Research in organizational behavior, 29*, 283-302.

Marquis, C., Glynn, M. A., & Davis, G. F. (2007). Community isomorphism and corporate social action. *Academy of Management Review, 32*(3), 925-945.

Marquis, C., & Raynard, M. (2015). Institutional strategies in emerging markets. *Academy of Management Annals, 9*(1), 291-335.

Matfess, H. (2018). Togo: Another wave of demonstrations washes over Gnassingbe's regime. Retrieved from https://www.acleddata.com/2018/12/13/togo-another-wave-of-demonstrations-washes-over-gnassingbes-regime/

McAdam, D. (1982). *Political Process and the Development of Black Insurgency, 1930-1970*. Chicago, IL: University of Chicago Press.

McAdam, D., & Su, Y. (2002). The war at home: Antiwar protests and congressional voting, 1965 to 1973. *American Sociological Review, 67*(5), 696-721.

McCarthy, J. D., & Zald, M. N. (1977). Resource mobilization and social movements: A partial theory. *American Journal of Sociology, 82*(6), 1212-1241.

McFarland, D. A. (2003). When tensions mount: Conceptualizing Classroom situations and the conditions of student-teacher conflict. *Stability and change in American education: Structure, Process and outcomes*, 127-152.

McFarland, D. A. (2004). Resistance as a social drama: A study of change-oriented encounters. *American Journal of Sociology, 109*(6), 1249-1318.

McFarland, D. A., Moody, J., Diehl, D., Smith, J. A., & Thomas, R. J. (2014). Network ecology and adolescent social structure. *American Sociological Review, 79*(6), 1088-1121.

McKenzie, D., & Sakho, Y. S. (2010). Does it pay firms to register for taxes? The impact of formality on firm profitability. *Journal of Development Economics, 91*(1), 15-24.

McKenzie, D., & Woodruff, C. (2013). What are we learning from business training and entrepreneurship evaluations around the developing world? *The World Bank Research Observer, 29*(1), 48-82.

McKenzie, D., & Woodruff, C. (2018). Business Practices in Small Firms in Developing Countries. *Management Science, 63*(9), 2967-2981.

McLean, P. D. (1998). A frame analysis of favor seeking in the Renaissance: Agency, networks, and political culture. *American Journal of Sociology, 104*(1), 51-91.

McLean, P. D. (2007). *The art of the network: Strategic interaction and patronage in renaissance Florence*: Duke University Press.

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.

Mears, A. (2015). Working for Free in the VIP: Relational Work and the Production of Consent. *American Sociological Review, 80*(6), 1099-1122.

Mennis, J. (2002). Using geographic information systems to create and analyze statistical surfaces of population and risk for environmental justice analysis. *Social Science Quarterly, 83*(1), 281-297.

Meyer, A. D. (1982). Adapting to environmental jolts. *Administrative Science Quarterly, 27*(4), 515-537.

Meyer, A. D., Brooks, G. R., & Goes, J. B. (1990). Environmental jolts and industry revolutions: Organizational responses to discontinuous change. *Strategic Management Journal, 11*(2), 93-110.

Meyer, A. D., Gaba, V., & Colwell, K. A. (2005). Organizing far from equilibrium: Nonlinear change in organizational fields. *Organization Science, 16*(5), 456-473.

Meyer, D. S. (2004). Protest and political opportunities. *Annual Review of Sociology, 30*, 125-145.

Mohrenweiser, J., & Zwick, T. (2009). Why do firms train apprentices? The net cost puzzle reconsidered. *Labour Economics, 16*(6), 631-637.

Molm, L. D. (2010). The structure of reciprocity. *Social psychology quarterly, 73*(2), 119-131.

Morenoff, J. D., & Sampson, R. J. (1997). Violent crime and the spatial dynamics of neighborhood transition: Chicago, 1970–1990. *Social forces, 76*(1), 31-64.

Mutz, D. C., & Pemantle, R. (2015). Standards for experimental research: Encouraging a better understanding of experimental methods. *Journal of Experimental Political Science, 2*(2), 192-215.

Myers, D. J. (2000). The diffusion of collective violence: Infectiousness, susceptibility, and mass media networks. *American Journal of Sociology, 106*(1), 173-208.

Myers, D. J., & Caniglia, B. S. (2004). All the rioting that's fit to print: Selection effects in national newspaper coverage of civil disorders, 1968-1969. *American Sociological Review, 69*(4), 519-543.

Nanda, R., & Sørensen, J. B. (2010). Workplace peers and entrepreneurship. *Management Science, 56*(7), 1116-1126.

Nassauer, A. (2016). From peaceful marches to violent clashes: A micro-situational analysis. *Social Movement Studies, 15*(5), 515-530.

Nassauer, A. (2018). Situational dynamics and the emergence of violence in protests. *Psychology of violence, 8*(3), 293.

Nassauer, A. (2019). *Situational Breakdowns: Understanding Protest Violence and Other Surprising Outcomes*. Oxford, U.K.: Oxford University Press.

Neace, M. B. (1999). Entrepreneurs in emerging economies: Creating trust, social capital, and civil society. *Annals of the American Academy of Political and Social Science, 565*(1), 148-161.

New York Times. (2013, May 31). Peaceful Protest Over Istanbul Park Turns Violent as Police Crack Down. *New York Times,* pp. 4-5. Retrieved from https://www.nytimes.com/2013/06/01/world/europe/police-attack-protesters-in-istanbuls-taksim-square.html

New York Times. (2019, January 5). Violence Surges as Yellow Vests Attack French Government Ministry. *New York Times,* p. 8.

Oh, C. H., & Oetzel, J. (2017). Once bitten twice shy? E xperience managing violent conflict risk and MNC subsidiary-level investment and expansion. *Strategic Management Journal, 38*(3), 714-731.

Ortiz-de-Mandojana, N., & Bansal, P. (2016). The long-term benefits of organizational resilience through sustainable business practices. *Strategic Management Journal, 37*(8), 1615-1631.

Ortiz, I., Burke, S., Berrada, M., & Cortés, H. (2013). *World Protests 2006-2013*. Initiative for Policy Dialogue. Columbia University. New York, NY.

Papke, L. E., & Wooldridge, J. M. (2008). Panel data methods for fractional response variables with an application to test pass rates. *Journal of Econometrics, 145*(1-2), 121-133.

Peng, M. W., & Luo, Y. (2000). Managerial ties and firm performance in a transition economy: The nature of a micro-macro link. *Academy of Management Journal, 43*(3), 486-501.

Piven, F., & Cloward, R. (1977). *Poor People's Movements: Why they Succeed, How they Fail*. New York, NY: Vintage Books.

Porta, D. d., & Tarrow, S. (1986). Unwanted children: Political violence and the cycle of protest in Italy, 1966–1973. *European Journal of Political Research, 14*(5-6), 607-632.

Portes, A. (1998). Social capital: Its origins and applications in modern sociology. *Annual Review of Sociology, 24*(1), 1-24.

Portes, A., & Haller, W. (2005). The Informal Economy. *The handbook of economic sociology*, 403.

Pun-Cheng, L. S. (2016). Distance decay. In D. Richardson, N. Castree, M. F. Goodchild, A. Kobayashi, W. Liu, & R. A. Marston (Eds.), *International Encyclopedia of Geography: People, the Earth, Environment and Technology: People, the Earth, Environment and Technology* (pp. 1-5). Hoboken, NJ: John Wiley & Sons.

Putnam, R. D. (2000). *Bowling Alone: America's Declining Social Capital*. New York, NY: Simon and Schuster.

Rand, J., & Torm, N. (2012). The benefits of formalization: Evidence from Vietnamese manufacturing SMEs. *World Development, 40*(5), 983-998.

Rasler, K. (1996). Concessions, repression, and political protest in the Iranian revolution. *American Sociological Review, 61*(1), 132-152.

Renzulli, L. A., & Aldrich, H. (2005). Who can you turn to? Tie activation within core business discussion networks. *Social forces, 84*(1), 323-341.

Renzulli, L. A., Aldrich, H., & Moody, J. (2000). Family matters: Gender, networks, and entrepreneurial outcomes. *Social forces, 79*(2), 523-546.

Ruef, M., Aldrich, H. E., & Carter, N. M. (2003). The structure of founding teams: Homophily, strong ties, and isolation among US entrepreneurs. *American Sociological Review*, 195-222.

Ruef, M., & Kwon, S.-W. (2016). Neighborhood associations and social capital. *Social forces, 95*(1), 159-190.

Rydgren, J., Sofi, D., & Hällsten, M. (2013). Interethnic friendship, trust, and tolerance: Findings from two north Iraqi cities. *American Journal of Sociology, 118*(6), 1650-1694.

Samila, S., & Sorenson, O. (2017). Community and capital in entrepreneurship and economic growth. *American Sociological Review, 82*(4), 770-795.

Sampson, R. J. (2011). *Great American City: Chicago and the Enduring Neighborhood Effect*. Chicago, IL: University of Chicago Press.

Sampson, R. J., McAdam, D., MacIndoe, H., & Weffer-Elizondo, S. (2005). Civil society reconsidered: The durable nature and community structure of collective civic action. *American Journal of Sociology, 111*(3), 673-714.

Sampson, R. J., & Raudenbush, S. W. (2004). Seeing disorder: Neighborhood stigma and the social construction of "broken windows". *Social psychology quarterly, 67*(4), 319-342.

Saxenian, A. (1994). *Regional Advantage*. Cambridge, MA: Harvard University Press.

Schneider, F. (2012). The shadow economy and work in the shadow: what do we (not) know?

Schoar, A. (2010). The divide between subsistence and transformational entrepreneurship. In J. Lerner & S. Stern (Eds.), *Innovation policy and the economy* (Vol. 10, pp. 57-81). Chicago, IL: University of Chicago Press.

Sharkey, P. (2018). The long reach of violence: A broader perspective on data, theory, and evidence on the prevalence and consequences of exposure to violence. *Annual Review of Criminology, 1*, 85-102.

Shi, W., Markóczy, L., & Stan, C. V. (2014). The continuing importance of political ties in China. *Academy of Management Perspectives, 28*(1), 57-75.

Sine, W. D., & David, R. J. (2003). Environmental jolts, institutional change, and the creation of entrepreneurial opportunity in the US electric power industry. *Research Policy, 32*(2), 185-207.

Small, M. L. (2002). Culture, cohorts, and social organization theory: Understanding local participation in a Latino housing project. *American Journal of Sociology, 108*(1), 1-54.

Small, M. L. (2009). *Unanticipated Gains: Origins of Network Inequality in Everyday Life*. Oxford, UK: Oxford University Press.

Small, M. L. (2017). *Someone to Talk to*. Oxofrd, U.K.: Oxford University Press.

Snow, D. A., & Benford, R. D. (1988). Ideology, frame resonance, and participant mobilization. *International social movement research, 1*(1), 197-217.

Sørensen, J. B., & Sharkey, A. J. (2014). Entrepreneurship as a mobility process. *American Sociological Review, 79*(2), 328-349.

Sorenson, O., & Stuart, T. E. (2008). Entrepreneurship: a field of dreams? *Academy of Management Annals, 2*(1), 517-543.

Soule, S., & Davenport, C. (2009). Velvet glove, iron fist, or even hand? Protest policing in the United States, 1960-1990. *Mobilization, 14*(1), 1-22.

Stam, W. (2010). Industry event participation and network brokerage among entrepreneurial ventures. *Journal of Management Studies, 47*(4), 625-653.

Stephens, C., & Long, N. (2000). Communication with police supervisors and peers as a buffer of work-related traumatic stress. *Journal of organizational behavior, 21*(4), 407-424.

Stuart, T. E., Hoang, H., & Hybels, R. C. (1999). Interorganizational endorsements and the performance of entrepreneurial ventures. *Administrative Science Quarterly, 44*(2), 315-349.

Stuart, T. E., & Sorenson, O. (2007). Strategic networks and entrepreneurial ventures. *Strategic Entrepreneurship Journal, 1*(3-4), 211-227.

Tannen, D., & Wallat, C. (1987). Interactive frames and knowledge schemas in interaction: Examples from a medical examination/interview. *Social psychology quarterly*, 205-216.

Thébaud, S. (2010). Gender and entrepreneurship as a career choice: do self-assessments of ability matter? *Social psychology quarterly, 73*(3), 288-304.

Thébaud, S. (2015). Status beliefs and the spirit of capitalism: Accounting for gender biases in entrepreneurship and innovation. *Social forces, 94*(1), 61-86.

Tilcsik, A., & Marquis, C. (2013). Punctuated generosity: How mega-events and natural disasters affect corporate philanthropy in US communities. *Administrative Science Quarterly, 58*(1), 111-148.

Tilly, C. (2003). *The Politics of Collective Violence*. Cambridge, U.K.: Cambridge University Press.

Togo Tribune. (2017, 13 November). Manifestations les jours ouvrables. *Togo Tribune,* pp. 3-4. Retrieved from https://togotribune.com/news/laquonbspnonnbspraquo-aux-manifestations-les-jours-ouvrables-le-collectif-des-victimes-des-manifestations

Turner, R. H. (1970). Determinants of social movement strategies. In T. Shibutani (Ed.), *Human Nature and Collective Behavior: Papers in Honor of Herbert Blumer* (pp. 145-164). Englewood Cliffs, N.J.: Prentice-Hall.

Tushman, M. L., & Anderson, P. (1986). Technological discontinuities and organizational environments. *Administrative Science Quarterly, 31*(3), 439-465.

U.S. Department of State. (2019). *Togo 2018 human rights report*. Country Reports on Human Rights Practices. U.S. Department of State. Washington, D.C. Retrieved from https://www.state.gov/wp-content/uploads/2019/03/Togo-2018.pdf

Venkataraman, S., & Van de Ven, A. (1998). Hostile environmental jolts, transaction set, and new business. *Journal of Business Venturing, 13*(3), 231-255.

Vissa, B. (2011). A matching theory of entrepreneurs' tie formation intentions and initiation of economic exchange. *Academy of Management Journal, 54*(1), 137-158.

Vissa, B. (2012). Agency in action: Entrepreneurs' networking style and initiation of economic exchange. *Organization Science, 23*(2), 492-510.

Vissa, B., & Chacar, A. S. (2009). Leveraging ties: the contingent value of entrepreneurial teams' external advice networks on Indian software venture performance. *Strategic Management Journal, 30*(11), 1179-1191.

Wan, W. P., & Yiu, D. W. (2009). From crisis to opportunity: Environmental jolt, corporate acquisitions, and firm performance. *Strategic Management Journal, 30*(7), 791-801.

White, R. W. (1993). On measuring political violence: Northern Ireland, 1969 to 1980. *American Sociological Review, 58*(4), 575-585.

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. *Academy of Management Annals, 11*(2), 733-769.

Wooldridge, J. M. (2010). *Econometric Analysis of Cross Section and Panel Data*. Cambridge, MA: MIT press.

World Bank. (2017). *Togo - Firm Surveys for Comparing Personal Initiative Training to Traditional Business Training 2013.* Retrieved from: file:///C:/Users/sdimitriadis/Downloads/ddi-documentation-english_microdata-2860%20(1).pdf

World Bank. (2019). *Profiting from parity: Unlocking the potential of women's business in Africa*. Retrieved from Washington, D.C.:

Wright, M., Filatotchev, I., Hoskisson, R. E., & Peng, M. W. (2005). Strategy research in emerging economies: Challenging the conventional wisdom. *Journal of Management Studies, 42*(1), 1-33.

Yang, T., & Aldrich, H. E. (2014). Who's the boss? Explaining gender inequality in entrepreneurial teams. *American Sociological Review, 79*(2), 303-327.

Yenkey, C. B. (2015). Mobilizing a market: Ethnic segmentation and investor recruitment into the Nairobi Securities Exchange. *Administrative Science Quarterly, 60*(4), 561-595.

Yiu, D. W., Lau, C., & Bruton, G. D. (2007). International venturing by emerging economy firms: The effects of firm capabilities, home country networks, and corporate entrepreneurship. *Journal of International Business Studies, 38*(4), 519-540.

Zald, M. N. (1996). Culture, ideology, and strategic framing *Comparative perspectives on social movements: Political opportunities, mobilizing structures, and cultural framings* (pp. 261-274).

Zott, C., & Huy, Q. N. (2007). How entrepreneurs use symbolic management to acquire resources. *Administrative Science Quarterly, 52*(1), 70-105.