

Relational skills, endogenous matching, and business performance:
A field experiment with entrepreneurs in Togo

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May 29, 2020

Abstract

Why do some entrepreneurs have better networks of peer relationships than others? We argue that relational skills—the ability to communicate effectively and interact collaboratively with new acquaintances—are an important but overlooked factor in the formation of peer relationships between entrepreneurs. We hypothesize that improving entrepreneurs’ relational skills will affect the relationships they form and their business performance. To test our theory, we conducted a pre-registered field experiment in Togo with 301 entrepreneurs who were randomized into a relational skills training that was embedded in a business training program. We found that entrepreneurs who were exposed to relational skills training formed 50% more relationships with peer entrepreneurs. These relationships exhibited more matching based on managerial skills and were more ethnically diverse. Finally, relational skills training also substantially increased entrepreneurs’ business performance. Our findings highlight how soft skills, such as relational skills, play a central role in entrepreneurs’ ability to overcome social barriers, match with peers, and create value.

Keywords

Relational skills, entrepreneurs, peer relationships, business training, field experiment

Peer advice is a crucial channel for the spread of business knowledge and best practices between entrepreneurs (Baum et al. 2000, Nanda and Sørensen 2010). Recent work using field experiments demonstrates that who an entrepreneur is partnered with matters for what she learns and how well her business does (Cai and Szeidl 2018, Chatterji et al. 2018, Field et al. 2016, Vega-Redondo et al. 2019). In these field experiments, entrepreneurs who were randomized to have more peers performed substantially better than their counterparts, who relied on pre-existing peer relationships.

These impressive field experiments suggest a puzzle. If researchers can exogenously introduce new peer relationships into entrepreneurs' networks so easily and if the returns to these interventions are significant, why don't entrepreneurs form these relationships themselves? The treatments in question are often relatively simple structural interventions that bring entrepreneurs together for a period time, such as work groups (Fafchamps and Quinn 2018), working with a peer for a day (Sandvik et al. 2018), or being in a training program for a week (Chatterji et al. 2018). All these interventions entrepreneurs could do for themselves. Yet, despite the significant impact of exogenously assigned peers on entrepreneurs' performance, there is consistent evidence that entrepreneurs fail to endogenously form peer relationships, even when search costs are minimal (Caria and Fafchamps 2019, Ingram and Morris 2007).

We argue that entrepreneurs fail to endogenously form valuable peer relationships because they lack the necessary *relational skills*. We take *relational skills* to be entrepreneurs' ability to reach out to others, communicate effectively, and approach interactions collaboratively with new acquaintances. Such "social" skills have been found to be valuable in jobs that involve teamwork and high levels of interaction (Deming 2017, Hoffman and Tadelis 2018), which suggests that they might also help entrepreneurs. Yet, research suggests that relational skills are

not prevalent among managers and entrepreneurs, and that they often acquired over long periods of time (Bensaou et al. 2013, Hallen and Eisenhardt 2012, Kuwabara et al. 2018).

We use a field experiment in Togo to test if training entrepreneurs in relational skills leads them to build more useful peer relationships and improves their performance. We worked with a business training program to develop a two-hour relational skills training intervention. Crucially, we randomized which cohorts of entrepreneurs received this additional training. The experimental design allowed us to separate the impact of relational skills from observed and unobserved differences in an entrepreneurs' network composition and business ability. Of the 301 entrepreneurs who enrolled in the program roughly half received the intervention. Entrepreneurs were surveyed at the start of the training program, at the end of the program, six weeks after, and six months after.

Results from our analyses show that, even when limited to a brief introduction, teaching relational skills leads to a cascade of changes in entrepreneurs' patterns of interaction and relationship formation. First, we find that entrepreneurs who received the treatment formed approximately 50% more new relationships with other participating entrepreneurs after the end of the training program. Moreover, the matching exhibited in these peer relationships was based on business needs rather than similarity on social characteristics. Specifically, we find that they formed more relationships with peers possessing skills they wanted to learn and also ended up with more ethnically diverse ties.

Finally, we also found that six months after the training program entrepreneurs in the treatment group showed increases in their performance of approximately 50 % compared with the control group. Mean profits for entrepreneurs at baseline was approximately 132 USD per month, the treatment represented an additional 65 USD in profits six months after the training

program. Although testing the mechanism for this finding is outside the scope of the field experiment, this performance effect can likely be explained by a combination of the information that entrepreneurs gained from their interactions, the advice they received, and the referrals, which we expect enabled them to seize more market opportunities and improve their business practices.

Our results contribute to three literatures. First, a growing literature on social skills has explored their effects on employment, wages, and firm productivity (Deming 2017, Heckman and Kautz 2012). This study builds on social skills research by introducing the related concept of *relational skills* and demonstrating its strategic value for entrepreneurs. We show that investing in these skills enables entrepreneurs to overcome social barriers and generate value in a non-zero-sum fashion. Second, this study also contributes to the literature on entrepreneurial performance and social networks (Chatterji et al. 2018, Shane and Cable 2002). This literature has shown through randomized assignments of peers that peer relationships have a meaningful impact on entrepreneurs' business performance. Yet, it does not explain why entrepreneurs are not able to endogenously form optimal portfolios of peer relationships. This study resolves this puzzle by showing that relational skills can promote endogenous network formation among entrepreneurs. Moreover, this study does so with clean exogenous variation on relational skills, which rules out selection effects. Finally, this study also contributes to research on entrepreneur training programs (Cohen et al. 2019, Yu 2020). A rapidly growing literature on bootcamps, incubators, and other training spaces for entrepreneurs has shown that they can effectively teach technical skills. Our results show that these programs can also teach entrepreneurs soft skills and that they can be spaces where entrepreneurs build valuable peer relationships.

Entrepreneur Peer Relationships

Entrepreneurs rely on their relationships with clients, investors, advisors, and many others, to launch and grow their businesses. Among these relationships, those with peer entrepreneurs are particularly influential.

Peers help entrepreneurs learn about the process of opportunity identification and business launch (Lerner and Malmendier 2013, Nanda and Sørensen 2010, Vega-Redondo et al. 2019). They are sources of valuable information, such as client referrals or financing opportunities (Cai and Szeidl 2018). Their informal advice improves entrepreneurs' management practices (Chatterji et al. 2018) and peers who are executives encourage the adoption of innovations (Fafchamps and Quinn 2018, Giorcelli 2019). Finally, peers motivate business owners to continue improving and growing their businesses in spite of challenging circumstances (Zuckerman and Sgourev 2006). These various processes contribute to improving entrepreneurs' sales, venture growth, and odds of surviving in the long term.

Much of the evidence about the value of peer relationships has emerged out of field experiments that exogenously introduce peers into entrepreneurs' networks through a variety of mechanisms including assignment to groups, training bootcamps, or mentoring programs. These interventions causally identify the impact of peer relationships on entrepreneurs' business performance, thereby revealing that entrepreneurs benefit from gaining additional peer relationships. An important implication of this research is that most entrepreneurs may be operating with suboptimal portfolios of peer relationships.

Relational Skills and the Formation of Peer Relationships

Many entrepreneurs have suboptimal portfolios, at least in part, because forming new relationships requires social skills that are difficult to acquire. Qualitative research and practitioner publications have long documented the “people” skills that managers and entrepreneurs use to build portfolios of relationships and the effort they expend to acquire those skills (Bensaou et al. 2013, Casciaro et al. 2016, Hallen and Eisenhardt 2012, Vissa 2012). Research in economics labels these non-cognitive skills as “social,” “interpersonal” or “soft” and they involve the ability to work well with others by communicating effectively and establishing a cooperative rapport (Borghans et al. 2014, Deming 2017, Heckman et al. 2013).

In the context of markets and businesses, such social skills are necessary because interacting with new people is fraught with uncertainty and entails costs. During initial interactions there is often interactional uncertainty about what is the appropriate way to interact (Brashers 2001). There is also uncertainty about others’ trustworthiness and their potential value as contacts (Dahlander and McFarland 2013, Yamagishi et al. 1998). Moreover, these uncertainties are amplified when others differ from the focal entrepreneur in terms of their social characteristics, such as their gender, ethnicity, or education. Interactions with people from different social categories are perceived as more uncertain (Prisbell and Andersen 1980) and less trustworthy (Brewer 1979). Even when individuals are able to overcome these uncertainties, forming new relationships requires establishing mutual trust and positive affect, as well as creating a pattern of repeated exchanges. Establishing these interactional patterns can cost time, patience, and effort. For these reasons, entrepreneurs often fail to endogenously form new relationships, even in cases when there are minimal search costs and peers are located in close proximity (Caria and Fafchamps 2019, Ingram and Morris 2007).

Overcoming uncertainties and costs associated with creating new relationships in the context of entrepreneurship requires a kind of social skill that we label *relational skills*. Relational skills in the context of business involve the ability to approach and interact well with new acquaintances. This means being able to communicate effectively about business issues and bring a collaborative attitude to those interactions. In contrast to cognitive skills, which refer to individuals' intelligence or technical abilities, relational skills are about people's ability to engage with others in a business context, especially when meeting them for the first time. Existing research has found that within firms, managers with better social skills, that is who communicate better, are more collaborative, and have a positive attitude, tend to increase firm productivity (Hoffman and Tadelis 2018, Schoar 2016) and earn higher wages (Deming 2017, Weinberger 2014). Building on this research, relational skills are likely to be particularly important for entrepreneurs because their work frequently requires them to meet new people, in a variety of different contexts, and build relationships with them.

Introducing Entrepreneurs to Relational Skills

Research on social skills shows that these skills tend not to be prevalent among employees in firms or entrepreneurs (Bedwell et al. 2014, Börner et al. 2018). This is partly reflected in the wages they tend to garner (Heckman and Kautz 2012). Employees and entrepreneurs who possess such skills often have either been able to learn them from mentors or developed them over long careers (Bensaou et al. 2013, Hallen and Eisenhardt 2012).

Nevertheless, field experiments that have trained people in various kinds of social skills have had considerable success. An early childhood intervention in the United States that taught children personality skills, involving conflict resolution and cooperation, found large effects

during adulthood on their employment and earnings (Heckman et al. 2013). Similarly, teaching young women negotiation skills improved their educational outcomes (Ashraf et al. 2020). Finally, teaching managers supervisory skills led to improvements in firm productivity (Schoar 2016).

This suggests that an introductory training for entrepreneurs in relational skills may be a particularly effective. Prior studies have used training programs to teach entrepreneurs managerial best practices (McKenzie and Woodruff 2014). We believe that relational skills can also be taught using a similar approach. In this section we develop a set of five hypotheses about the immediate and long-term effects of introducing entrepreneurs to relational skills.

Interactions. Introducing entrepreneurs to relational skills will have a series of cascading effects, beginning with entrepreneurs' perceptions of and engagement in interactions with other entrepreneurs who have received the same training. The introduction is likely to make entrepreneurs perceive prospective interactions with those entrepreneurs as more collaborative. Relational skills involve approaching new interactions with a collaborative attitude, which involves asking new acquaintances questions about their businesses and giving advice. These activities are known to inspire positive affect and a stronger sense of closeness between individuals (Lawler et al. 2008, Small 2009). Similarly, relational skills involve effective communication about business issues. This means that entrepreneurs with better relational skills are able to focus their communication on issues related to business and exchange more information. We therefore hypothesize that:

Hypothesis 1: Entrepreneurs trained in relational skills will perceive interactions as more collaboratively and exchange more information during interactions.

Relationship formation. Beyond changes in their immediate interactions with other entrepreneurs, we also expect the relational skills training will make entrepreneurs likelier to form more new relationships based on those interactions. As described above, relational skills enable entrepreneurs to communicate better and to approach others with a collaborative attitude. This makes it likelier that they identify more entrepreneurs with whom they want to keep in touch. These may be people that entrepreneurs felt like they connected well with, whom they felt were trustworthy, or whom they believed to possess information that is useful to them, which are all factors that are predictive of relationship formation (McFarland et al. 2013). For this reason, we expect that:

Hypothesis 2: Entrepreneurs trained in relational skills will form more new relationships with other entrepreneurs from the training program after program has ended.

Skill complementarity. An important concern with any intervention that increases entrepreneurs' number of relationships is that the intervention might lead to redundant business ties, which are connections that do not provide access to helpful information or new resources. We argue that, unlike mixers or other structural interventions (Carrell et al. 2013, Ingram and Morris 2007), improving entrepreneurs' relational skills will result in the formation of fewer redundant business relationships.

Entrepreneurs with better relational skills will form fewer redundant business relationships because they base their decision on more information about their peers. Better relational skills lead to more information transfer in any given interaction and with more information entrepreneurs can better evaluate the potential value of connecting with a peer. Conversely, entrepreneurs can also better recognize when they have useful knowledge to share with their partner.

These arguments suggest that improved relational skills should not just increase the number of relationships, but also the quality of the match between any given pair. A first-order concern for entrepreneurs is the acquisition of better management skills and practices (Bloom et al. 2013). We expect that entrepreneurs with better relational skills will be more likely to connect with peers who have complementary managerial skills they want to learn and, conversely, they possess a skill the peer would like to learn. Building on Vissa's (2011) concept of task complementarity, we define skill-complementary business relationships as those that connect an entrepreneur with another entrepreneur who possesses a management skill that the focal entrepreneur has expressed a desire to learn. This leads us to predict:

Hypothesis 3: Entrepreneurs trained in relational skills will form more skill-complementary relationships with other entrepreneurs from the training program after program has ended.

Ethnic diversity of relationships. If entrepreneurs are forming connections on the basis of skill complementarity, then what dimensions are they no longer building relationships on? An important pattern in relationship formation is homophily (McPherson et al. 2001). People who

are similar in terms of social characteristics, such as ethnicity, are likelier to form a relationship (Vissa 2011).

We argue that improving relational skills diminishes the role of ethnic homophily in the formation of new business relationships between entrepreneurs. Relational skills reduce entrepreneurs' reliance on demographic similarity and other forms of non-deliberative matching, which occurs when actors match on a small, limited number of attributes (Azoulay et al. 2017). As a result, entrepreneurs who have been introduced to relational skills will form more new relationships based on skill complementarity rather than demographic similarity, which should lead entrepreneurs to form more ethnically diverse relationships. This leads us to predict:

Hypothesis 4: Entrepreneurs trained in relational skills will form relationships with entrepreneurs from the training program after program has ended that are less concentrated in one ethnic group.

Entrepreneurial performance.

As described earlier, existing research suggests that entrepreneurs with larger and more diverse sets of peer entrepreneur relationships are likely to perform better in terms of their survival, financing, and profitability (Baum et al. 2000, Shane and Cable 2002). Portfolios of peer relationships improve entrepreneurs' performance because they provide access to information about market opportunities, increase the chance that an entrepreneur will come across a valuable new practice, and provide better access to funding and investments (Hochberg et al. 2007).

Given that entrepreneurs with better relational skills are likely to form more new relationships that are skill-complementary, which increase the diversity of their portfolios

relationships, we expect that this will improve their business performance. We therefore predict that:

Hypothesis 5: Entrepreneurs trained in relational skills will earn more profits.

Note on Performance Mechanisms

We expect entrepreneurs' performance to improve because relational skills shift a variety of key mechanisms simultaneously. While this improves our confidence in Hypothesis 5, it does make it difficult to say precisely whether one single mechanism accounts for the change. For example, changes in relational skills will affect the information entrepreneurs gain during one-off interactions. They also affect the number and diversity of relationships they form, which might lead entrepreneurs to learn a new practice or to gain a customer referral. The new relationships could also lift entrepreneurs' benchmarks and expectations about appropriate levels of performance, motivating them to improve their businesses. It is likely that some combination of all of these effects works to benefit entrepreneurs and translates into higher performance. As a result, although we are able to hypothesize that exposure to relational skills training is likely to increase performance, we defer on identifying which of the mechanisms are most responsible for shifts in performance. Our goal, with this hypothesis, is to test whether a deficit in social skills explains why entrepreneurs have suboptimal networks. We hope future work will unpack the many interesting implications of such a finding.

EXPERIMENTAL METHODS

Research Setting: “Marketing in Action” Business Training Program

To study the impact of relational skills, we worked with a business training program for entrepreneurs in Togo’s capital, Lomé. The context of the program allowed us to exogenously change entrepreneurs’ relational skills by exposing a subset of participants to an introduction to relational skills in business. The business training program was organized by the Association of Young Entrepreneurs of Togo (Association des Jeunes Entrepreneurs Togolais) in collaboration with the Energy Generation Academy. Both organizations are leading nonprofit organizations in Togo whose social missions are to promote entrepreneurship and have been doing so in part by hosting training events for entrepreneurs since 2012. In the spring of 2017, they invited entrepreneurs to participate in a training program called “Marketing in Action,” which taught entrepreneurs basic marketing practices for their businesses. In collaboration with the organizers, we created an experimental intervention to expose entrepreneurs to relational skills. We randomly selected half of the participating cohorts of entrepreneurs into this “relational skills” condition.¹

Togo is a small, francophone country in West Africa and representative of countries designated by the World Bank as low-income. According to the World Bank’s “Doing Business Index” measure of the difficulty involved in starting and operating a business, Togo scored 54.9 out of 100 in 2018, which is close to the regional sub-Saharan average of 52.6 (World Bank 2018). In settings such as Togo, social relationships are central to most aspects of business because formal institutions are too weak to safeguard market transactions (Khanna and Palepu 2010). Togo was therefore a promising field site because entrepreneurs were likely to place value

¹ The surveys, intervention, and randomization were approved by the authors’ Institutional Review Board (IRB) (Protocol # IRB17-0319).

on social ties, but not have access to training on relational skills. We anticipated that this would make them receptive to an introductory training on relational skills.

Interviews with entrepreneurs in Lomé revealed that they were largely aware of the value of peer relationships, but they often struggled to connect with new acquaintances². For example, one entrepreneur said: “I find that the way we are educated here is that entrepreneurs have good ideas but they cannot implement them because they cannot approach other people to discuss them.”

(YE 13) When trying to understand why these difficulties existed, entrepreneurs often turned to cultural narratives related to a lack of knowledge about how to build relationships. One entrepreneur expressed it like this:

“I think you have to train yourself in order to form new relationships. There may be a cultural side that plays a role. For example, culturally, we go to the market, and the process of entrepreneurship that we have always known is seeing our mothers at the market. It’s essentially that—it’s customers coming to them and them never really having worked on a business strategy to attract customers. But it is also perhaps a lack of training on this [building relationships]! All training is on the business plan and the sources of financing that may exist—loans or something like that—but not enough on the relational side.” (YE 6)

² Appendix A describes the qualitative methods used and additional illustrative quotes from entrepreneurs interviewed.

Participating Entrepreneurs and Randomization

The Marketing in Action program solicited participants from throughout Lomé. The program was advertised to local entrepreneurs through social media and a network of local nonprofit organizations. In addition to advertising, a team of three canvassers visited businesses door-to-door in all major commercial districts to invite the owners to participate. The requirements for participation were that entrepreneurs' businesses had been in operation for at least one year and that they be based in the city of Lomé. In addition, participants were asked to pay a small participation fee (approximately 5 USD), which was reimbursed to them upon successful completion of the training. All of the entrepreneurs who participated in the training were both owners and founders of their businesses.

The recruitment process yielded 326 participants, whom we split into 14 groups, each with 20–25 entrepreneurs.³ Program dates were filled one after the other on a sequential basis as individuals registered. Once all the groups had been filled, 7 of the 14 groups were randomly selected into the communication practices condition using a random number generator in Excel. The timeline and implementation of the field experiment are detailed in Appendix A.

Business Training Content and Instructors

The training program curriculum was adapted from programs carried out by the International Labor Organization (ILO) in developing countries (for a review, see). Typically, these programs bring together business owners for short courses on basic management practices. The

³ Ex-post power calculations based on our study's sample of 301 observations and the cluster randomized trial design with 14 clusters have 91% power to detect an effect of the size we observe using a 5% significance level. This level of power is standard in research on entrepreneurship in strategy; see, for example, Chatterji et al. (2018), who use a field experimental design with entrepreneurs and have a similar sample size.

Marketing in Action program used the 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 days, from 8 a.m. to 6 p.m. each day, for an approximate total of 20 hours per cohort. Two new groups of entrepreneurs started each week, one on Monday and one on Wednesday.

The training program was taught by two instructors, who were local consultants. The instructors taught the classes together, following a strict schedule. There were catered coffee and lunch breaks each day. The program also included a networking event at the end of the two days. During this networking event, after all the teaching material had been covered, participants were randomly assigned three discussion partners from within the same class. Participants were then given space for private one-on-one conversations with each of their discussion partners. These conversations lasted approximately 30–45 minutes each. During the conversations, participants were given writing materials to take notes on their conversations.

Experimental Treatment

To test whether improving relational skills shapes entrepreneurs’ interactions, business relationships, and profitability, we randomly assigned cohorts of entrepreneurs in the Marketing in Action program into two conditions, a “relational skills” treatment condition and a control condition. Participants in the treatment condition began the two-day training program with a two-hour training session on relational skills. Prior field experimental research has used such training sessions and lectures as treatments to improve people’s skills and practices (e.g., Ashraf et al.

(2020); Cable et al. (2013); and Paluck (2011)). After the relational skills training session, the treatment groups followed a series of interactive lectures during the remaining two days that covered the marketing practices. The control group followed the exact same training program, except that they were not given the two-hour training session on relational skills. Instead, the lectures on marketing practices were covered at a slightly slower pace to make up for the two hours that the treatment group spent on relational skills.⁴ As a result, both control and treatment groups spent exactly the same number of hours together.

Our treatment, the two-hour interactive training session, introduced entrepreneurs to relational skills in business. The main objective of the training session on relational skills was to equip entrepreneurs with a collaborative attitude towards interactions with peers who were previously unknown to them and to teach them how to communicate effectively about business issues.

Table 1 provides an overview of the structure of the session. During the first hour, the first 20 minutes were spent defining interpersonal interactions in business settings. This created a common baseline for all participants about what interactions entail, what steps are involved, and which interactions are about business and which are not. It connected the subject with their lived experiences to help them relate the content of their training to their work lives. Moreover, taking time to define business interactions as a topic gave instructors the opportunity to acknowledge that interactions with people can often be complex and difficult, especially when involving strangers. Having established this common baseline, the instructors spent the next 20 minutes

⁴ In order to introduce the two-hour training session into the program, we chose to condense the amount of time spent on marketing practices rather than add an additional two hours for the treatment condition because this would have represented an approximate increase of 10% in the total time that entrepreneurs in the treatment condition spent together. We chose to avoid this increase in total time spent together because it could have confounded the effects of the relational skills intervention on our outcomes of interest related to relationship formation. Notably, test scores for comprehension of the marketing practices showed no difference between the control and relational skills conditions.

discussing what collaborative interactions entail and why they are important. Entrepreneurs were taught that collaborative interactions involve learning about others by asking them questions about their businesses and using their own experiences and knowledge to give advice (Casciaro et al. 2016). The act of giving advice signals generosity and caring, which helps establish a collaborative atmosphere for the interaction. It was then explained to entrepreneurs that collaborative interactions are important because they could also gain from those interaction. Instructors illustrated the impact of the other party's gains on one's own outcomes and how early collaborative interactions could lead to long-term cooperation. Finally, in the next 20 minutes, entrepreneurs were taught about effective communication with other entrepreneurs. Instructors emphasized the importance of keeping the communication focused on issues related to business. They emphasized the importance of being clear and direct when asking questions or offering a perspective. Effective communication practices also involved simple steps like making sure to ask for contact information, sending thank-you notes, and following-up.

The final hour of the training session involved working through an example of two entrepreneurs interacting, which mimicked real situations that entrepreneurs might face. This case was meant to reinforce entrepreneurs' understanding of relational skills in practice and to provide an opportunity for them to engage interactively with the content of the session. This was followed by time for questions and answers.

As a whole, entrepreneurs were taught how to initiate collaborative interactions with their peers that enable them to effectively exchange information about business issues. This treatment was also designed so that entrepreneurs could take advantage of their time in the training program to put into practice the relational skills they were taught, during breaks and the networking exercise at the end.

*** Insert Table 1 about here ***

The instructors who taught the relational skills training session also taught the other materials in the two-day training program. The two instructors co-taught all materials; as a result, they were both present in all classes. As well as being consultants, the instructors were graduates of the local university and each had several years of experience teaching courses to entrepreneurs. One of the authors taught the two instructors the content of the relational skills training session and provided detailed instructions for the delivery of the training session. The delivery of the relational skills training was then practiced and refined in the presence of one of the authors. Although the instructors were trained to deliver the relational skills session, they were blind to the design of the field experiment and the authors' outcomes of interest. The PowerPoint slides developed with the instructors for this session can be found in Appendix I.

Data

The data for this study come from five sources: (1) pre-treatment survey; (2) digitized participant notes; (3) training program exit survey; (4) six-weeks post-treatment survey; and (5) six-months post-treatment survey. The pre-treatment survey and the two post-treatment surveys (sources 1, 4, and 5) collected information from all participant entrepreneurs about their management practices, expenditures, revenues, employees, and their demographic information. The two follow-up surveys conducted after the training program (sources 4 and 5) contained additional questions on participants' contact with other participants from their class in the training program;

these were used to measure relationship formation. The digitized participant notes (source 2) are handwritten notes that participants took of their discussions with other participants during a structured networking event, which were electronically scanned. The exit survey (source 3), asked all participants questions about their interactions during the two days of the program and their perceptions of other participants, as well as their comprehension of the material taught. The survey questions used to construct the variables for our analyses can be found in Appendix J.

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

Although 326 entrepreneurs signed up to participate in the training program, 10 did not finish their training. Five entrepreneurs were unable to attend the second day of training due to unforeseen circumstances, such as a health condition or business emergency, while five dropped out. During 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 for travel or had to stay away from their work due to health issues, such as malaria.⁵

Dependent Variables

⁵ To further check that attrition did not bias the randomization of the treatment, we ran an OLS 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 insignificant (*Coef* 0.148; *St. Err.* 0.126), indicating that attrition did not impact treatment.

Cooperative perception of interactions. Our first hypothesis (H1) is that entrepreneurs will perceive interactions during the training program as more collaborative than competitive after they are introduced to relational skills. To measure entrepreneurs' perception of interactions, we asked them to think about the interactions they had had during the two days of the training program. We then provided them with a sheet of paper with a grid of 24 words, of which half represented concepts related to collaboration (such as *help*, *trust*) and the other half represented concepts related to competition (such as *grow*, *dominate*), and asked them to circle five words that they believed best represented these interactions.⁶ Using this information, we created a measure of *collaborative perception of interactions* for each entrepreneur, which was a count variable equal to the total number of collaborative words selected from the grid of 24 words.

Information exchange. The first hypothesis (H1) also states that entrepreneurs will exchange more information after they've been trained in relational skills. To measure information exchange between entrepreneurs, we created a structured networking event at the end of the training program, during which each entrepreneur was successively paired with three randomly selected discussion partners. All participants were given pen and paper, and at the end of the event, their written notes from their discussions were scanned. The total number of words that each participant wrote during their three discussions was used as a measure of *information exchange* (Aral and Van Alstyne 2011).

Relationship formation. The first outcome of interest is how many relationships each entrepreneur formed with other participants in their training class (H2). To measure relationship

⁶ Other cooperative words included *friendship*, *sharing*, and *alliance*, while other competitive words included *adversarial*, *beat*, and *dominate*. For the full list of words, see Appendix J.

formation, we used data from the follow-up survey conducted six weeks after the training program. During the follow-up survey, all participants were asked whether they had spoken over the phone or met in person with any other participants from the same training group after the program had ended, 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, we calculated the *number of relationships formed* as the total number of people entrepreneurs had kept in touch with (Piezunka and Dahlander 2019, Vissa 2011).

Skill complementarity. Hypothesis H3 relates to the proportion of relationships formed with entrepreneurs who possess complementary business skills. The measure for skill complementarity is adapted from the dyad-level measure used by Vissa (2011) for task complementarity and captures whether the focal entrepreneur formed a relationship with another training-class participant who had a skill that the focal entrepreneur expressed a desire to learn.

To construct this measure, we use survey responses in which 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. We used the list of business best practices (which cover all five areas of expertise) developed by the World Bank (McKenzie and Woodruff 2018). In parallel, based on their responses to the pre-treatment survey, we 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), we 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 in which participant i indicated that they wanted to improve. Then, to bring this measure from the dyadic level to the individual level, we 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 meant that none of the connections formed exhibited skill complementarity and 1 meant that all connections formed exhibited skill complementarity.

Ethnic concentration. Hypothesis H4 states that better relational skills will lead to the formation of more diverse relationships. *Ethnic concentration* of relationships represents the level of concentration of the newly formed relationships across ethnic groups. Using the pre-treatment data regarding each entrepreneur's ethnicity, we calculated the ethnic concentration of the relationships formed using Herfindahl indexes, a common approach for measuring diversity in egocentric portfolios of relationships (Uzzi 1996). 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 ethnicities, 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 five possible cases, making the minimum value of the index 0.20.

Performance. Finally, Hypothesis 5 is about the performance of entrepreneurs' businesses. The measure for business performance comes from three surveys: a pre-treatment survey at the

beginning of the training and two post-treatment surveys at six weeks and six months after the training. In each survey, we asked participants about their businesses' profits in the month previous to the survey. Self-reported monthly profits is a standard measure of performance for small businesses in developing economies, which is highly correlated with other measures of performance based on accounting books (Atkin et al. 2017, De Mel et al. 2009).

Independent Variable

Treatment group. The main independent variable in the analyses was whether the individual participated in a group that received the relational skills treatment. Accordingly, we 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 relational skills, we also accounted for variation in the characteristics of entrepreneurs and their businesses in the regression models. Specifically, we included as control variables several conventional factors that may be related to perceptions of interactions, information exchange, relationships formed, and performance.

First, we controlled for *Ewe ethnicity*, coded as 1 if the participant was Ewe (the majority ethnic group in Lomé) and 0 otherwise. 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 interaction partners during the training program, thereby making it easier

to form more relationships. In addition to ethnicity, we controlled for entrepreneurs' gender by including an indicator for *female* entrepreneurs. Cultural beliefs about gender and entrepreneurship could make it more difficult for women entrepreneurs to form new relationships (Field et al. 2010); therefore, we controlled for this factor. We 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. Entrepreneurs with less than a primary school education are unlikely to have facility with reading and writing, which is also an indicator of lower socioeconomic status in Togolese society.

Furthermore, three control variables were included to capture various aspects of participants' businesses. First, we 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 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 et al. 2003).

We also controlled for the extent to which each participant used established best practices for management in their businesses. Using the management practices score for small businesses in developing economies created by McKenzie and Woodruff (2018), we collected data in the pre-treatment survey through a series of "yes or no" questions about whether participants used each of the best practices in a list of 27 practices.⁷ The *management practices score* of a participant's

⁷ These best practices include, for example, recording every purchase and sale, using advertising, and having a monthly budget of expenses. See McKenzie and Woodruff (2018) for a complete list and details.

business is the proportion of the 27 questions to which the entrepreneur answered “yes.” We controlled for this because participants with higher scores may be less motivated to interact, communicate, or create new relationships.

Furthermore, a series of 10 dummy variables was created to capture entrepreneurs’ sector of economic activity. The 10 sectors were tailoring and shoemaking, sale of food or drink, jewelry-making and sales, information technology sales and services, cosmetic and health services, construction, food processing and production, carpentry and metal works, rug manufacturing and weaving, and multimedia services.

Finally, we controlled for the training *class size*, which is equal to the number of entrepreneurs in each training program class. 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.

We report the summary statistics and bivariate correlations in Table 2. The majority of participants (78 %) were members of the Ewe ethnic group and had completed primary school (75 %). Approximately 66 % of entrepreneurs were male. Entrepreneurs’ businesses had on average one or two 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 % 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. In Appendix B, we report balance tests, which explore whether baseline characteristics predict being in the treatment group. We find no statistically significant evidence that any baseline characteristics of the entrepreneurs or their businesses predicts receiving the treatment.

** Table 2 about here **

Estimation

Our estimation strategy builds on a pre-registration plan,⁸ but takes into account several outcome variables and their longitudinal structure that had not been anticipated. All dependent variables are cross-sectional, except for the performance dependent variable—log profits last month—which is a panel time series with three periods.

To test hypotheses H1 and H2, we used a negative binomial model, which is appropriate for models where the dependent variable is a count with nonnegative values (Cameron and Trivedi 2009). The dependent variables to test these hypotheses are cooperative words selected, words written, and relationships formed, which are count variables.

To test hypotheses H3 and H4, we used fractional logit regressions, which is appropriate for models where the dependent variable is a fraction as in the case of skill complementarity (H3) and ethnic concentration (H4) (Papke and Wooldridge 2008). Finally, we use entrepreneur-level fixed effects models to test hypothesis H5 since the dependent variable for performance (H3) is log monthly profit. We log the variable because profits, as is regularly the case, is highly

⁸ We pre-registered our field experimental design and our expected outcomes with the Open Science Foundation (OSF) at <https://osf.io/qpydj/>. Our pre-registration document refers to communication practices as “cultural frames of cooperation and helping” and explicitly outlines our first three hypotheses. The OSF included one prediction—that the treatment should increase “relational knowledge”—for which we did not end up collecting data to test. We did not register our final two hypotheses. We did not initially think we could measure firm performance but ended up having funds for surveys after the program. For ethnic diversity, we did not realize that the prediction followed from our model until discussing our findings with colleagues. Our pre-registered analyses use OLS and hold as shown in Appendix E.

skewed. We clustered standard errors by training groups (i.e., we let observations be independent across groups but not necessarily across the participants of the same group) in all models.

To ensure that our results are not model dependent, we estimated the regressions testing hypotheses H1, H2, H3, and H4 using OLS. This has the added benefit of making the interpretation of the results simpler as well. The statistical significance of our results held unchanged using this regression approach, as did the interpretation of the magnitudes of the effects. For details on these robustness checks, see Appendix E.

RESULTS

Collaborative perception of interactions and information exchange

Hypothesis 1 posits that entrepreneurs who have been introduced to relational skills will perceive interactions with other entrepreneurs in their training program class as more collaborative and will exchange more information during those interactions. Table 3 presents regression results that test this hypothesis. All regressions in Table 3 are estimated using a negative binomial model because the outcomes are count variables, with standard errors that are clustered at the classroom level. In addition to the controls shown, each model also contains fixed effects for entrepreneurs' sector of activity and a constant, which are not shown in the table.

In Models 1 and 2, the dependent variable is the number of collaborative words that entrepreneurs selected to describe their interactions during the training program. Model 1 estimates the effect of relational skills training without any control variables, while Model 2 estimates it with control variables. In both models, the coefficient estimate for relational skills is positive and statistically significant at the 5-% level. Using predictive margins and keeping all other variables at their means, being in the treatment group leads to selecting 0.25 more

cooperative words, an increase equivalent to roughly one-quarter of a standard deviation. This indicates that entrepreneurs introduced to relational skills perceived interactions as more cooperative.

Models 3 and 4 in Table 3 test whether entrepreneurs in the treatment condition exchanged more information during interactions. To measure information exchange we counted the number of words written during three discussions that each entrepreneurs participated in during the structured networking event at the end of the second day of the training program. This is the outcome variable in Model 3, which includes only the treatment variable, and Model 4, which also includes control variables. In both models the coefficient for relational skills is positive and statistically significant at the 1% level. The predictive margins show that being in the treatment group increases the average number of words written by 27, which represents a doubling of the number of words written. Figure 1 shows the plots of the kernel density function for the number of words written during the three discussions by participants in the treatment and control groups. The red dashed line is the distribution for participants in the treatment condition, while the solid blue line represents those in the control group. Figure 1 shows that the distribution for the treatment group is shifted significantly to the right of the distribution of the control group. These results lend support to Hypothesis 1 that entrepreneurs who received relational skills training exchanged more information during interactions.

*** Insert Figure 1 about here ***

*** Insert Table 3 about here ***

Relationship Formation

Building on Hypothesis 1, Hypothesis 2 states that exposure to relational skills will lead to the formation of more new relationships between entrepreneurs after the training program. Figure 2 shows the plots of the kernel density functions for the number of new relationships formed by entrepreneurs in the treatment and control groups, as measured six weeks after the end of the training program. The figure shows that the distribution for the treatment group is shifted to the right of the distribution for the control group, indicating that there is a higher frequency of larger numbers of relationships formed. The regressions in Table 4 confirm this difference between the two groups. Specifically, Models 1 and 2 of Table 4 estimate the effect of relational skills training on the number of new relationships formed after the training program. The treatment variable is positive and statistically significant, with the predicted count of ties for participants in the control group being 1.5, compared with 2.25 in the treatment group. Given that the median participant in the control group formed approximately two ties, the addition of (about) one more tie through the treatment represents a large increase in the outcomes from the treatment. Model 2 includes control variables, of which only the indicator for Ewe ethnicity is statistically significant at the 5% level. Given that Ewe is the majority ethnic group, membership in that group is likely to increase the ease of forming new relationships. In combination, these results provide strong support to the prediction that entrepreneurs that have received relational skills training will form more relationships with other entrepreneurs.

*** Insert Figure 2 about here ***

To further validate this result, we estimated the same models using an alternative outcome variable. Specifically, we adapted a measure from Vissa (2011), who uses the receipt of a business card to measure intention to form a relationship. To create this measure, we provided all entrepreneurs with personalized business cards with their name and phone number printed on them, and we told them they could use them as they wished. At the end of the two days, we asked the participants to show us the cards they had received from others and we took note of each card received. Following the same model specification as in Table 3, but changing the outcome variable to be the number of cards received, we replicated the result for number of relationships formed from Table 3. This helps verify that our outcome measure was accurately capturing the dynamics that better relational skills lead to more new relationships. For details on these results see Appendix G.

Skill Complementarity

We further hypothesized that entrepreneurs exposed to relational skills training would form a greater proportion of relationships that exhibit skill complementarity (Hypothesis 3). 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 the wish to improve upon) were on average higher for individuals in the treatment group than those in the control group. The regression analyses in Models 3 and 4 of Table 4 support Hypothesis 3: the coefficient for relational skills training is positive and statistically significant at the 5% level. Based on the predictive margins for these models, receiving the treatment increases the proportion of the entrepreneur's network that is task complementary by about 15%, when keeping other covariates constant at their means. Model 4 includes control variables in addition

to the treatment variable. The coefficient for management practices score is positive and statistically significant, indicating that entrepreneurs with better management practices were likelier to make matches. The coefficients for class size and number of employees were negative, which suggests as classes became larger the quality of matches decreased and that entrepreneurs who owned larger businesses made worse matches, perhaps because they were perceived as successful and pursued by other entrepreneurs. Taken together, these results provide support for Hypothesis 2.

A potential concern with these skill complementarity results is that perhaps entrepreneurs were not seeking out others with the managerial skills they needed, but rather by simply making more relationships, they accidentally ended up with more good matches. In other words, perhaps the increased skill complementarity is an accidental by-product of building more relationships. To confirm that the observed differences in skill complementarity were not simply the result of network growth, we ran a series of simulations where the number of new relationships that each entrepreneur formed was held at the observed value, but the targets of those relationships were randomly selected from among other participants in their training group. Then the proportion of skill-complementary relationships was calculated for the treatment and control groups. We calculated the difference in levels of skill complementarity between the treatment and control groups and repeated this for 2,000 simulations. In Appendix D, we plot the simulated differences between the groups. The actual difference between skill complementarity in the treatment and control groups is extremely unlikely to happen by chance (less than one-tenth of a %). Forming more ties does not necessarily result in more useful connections.

Ethnic Diversity

Hypothesis 4 states that relational skills will lead to the formation of more ethnically diverse relationships. This is tested using a measure of the concentration of new relationships formed within ethnic groups. Because this measure ranges from 0 to 1, Models 5 and 6 in Table 4 use a fractional logit model. In both models the coefficient for the treatment variable is negative and statistically significant at the 1% level, indicating that being in the treatment group decreases the ethnic concentration of new relationships formed. The effect is meaningful, with the marginal effect being -0.11 , which is nearly half of a standard deviation. Model 6 also includes control variables, of which completing primary school lowers the ethnic concentration of new ties, while the number of employees increases the concentration. In summary, these results provide support for Hypothesis 4.⁹

*** Insert Table 4 about here ***

Business Performance

The final hypothesis we posited was that introducing entrepreneurs to relational skills will increase their performance. In particular, it was theorized that relational skills training will lead to an increase in monthly profits in the long term. To test the significance and magnitude of this effect, we use a difference-in-differences approach. Table 5 shows the results from OLS models with entrepreneur level fixed effects regressing log monthly profit on relational skills training. Model 1 shows the results without any control variables, while Model 2 includes management practices score and number employees, since these are time-varying variables. The effect of

⁹ In addition to ethnic diversity, gender diversity is also an important dimension of entrepreneurs' portfolios of relationships. However, after conducting exploratory analyses, we find no effects of the treatment on the gender composition of entrepreneurs' peer relationships. For these analyses, see Appendix H.

relational skills training is significant at the 5% level in both models. The coefficient estimates indicate that relational skills training was associated with an approximately 50 % increase in monthly profits in the post-treatment period, roughly one-quarter of a standard deviation. In Model 2, the control variables for number of employees and the management practices score are positive and statistically significant, which aligns with existing evidence that larger businesses with better management practices tend to perform better in developing countries (McKenzie and Woodruff 2018).

Based on these models, Figure 3 plots the predicted log monthly profits by treatment group at the baseline period, six weeks after the training, and six months after the training program. The grey dashed line represents the treatment group, which shows an increasing trend after the training program. The solid black line represents predicted profits for the control group, for which there is no statistically significant change from the baseline period. For supplementary graphical illustrations of the treatment effect on entrepreneur profits please refer to Appendix C.

Why do we observe a large age change in monthly profits? In our data, most entrepreneurs in the baseline period are only slightly above breaking even in terms of their profits. The median firm in our sample has revenues of 768 USD per month and a profit of 132 USD per month. Small improvements, such as gaining a new client, selling several more units, or finding a better supplier, can make a big difference in terms of profits and register as large percentage increases in profits in the data. It is not uncommon for interventions with small-scale entrepreneurs in developing economies to have large effects in increasing profits. One recent field experiment testing the effect of a training program on entrepreneurs in Tanzania found that their intervention led to increases in profits of about 50% (Berge et al. 2014), which is a similar effect size to ours in Table 5, while another field experiment in Togo found that a personal-

initiative intervention led to an increase of 30% in profits (Campos et al. 2017). Furthermore, consistent with prior work, in Model 2 of Table 5, we find a strong association between management practices and number of employees and the firm's profitability. This increases our confidence that our measure of profits is not merely noise.

The results of these analyses are consistent with the theory and confirm Hypothesis 5. Additional details on the interpretation of the kernel density functions for performance and a comparison of the magnitude of the treatment effect with those in other studies can be found in Appendix C.

*** Insert Figure 3 about here ***

*** Insert Table 5 about here ***

DISCUSSION AND CONCLUSION

This study explores the role of relational skills in enabling entrepreneurs to endogenously match with more peers and improve their performance. Using a field experiment in Togo we provide causal evidence that a simple introduction to relational skills enables entrepreneurs to make more out of social opportunities to interact and create more new relationships with peers that are useful in terms of access to complementary skills and more ethnically diverse. Relational skills are also associated with improvements in entrepreneurs' business performance.

Contributions

This study demonstrates the strategic value of relational skills, which are a kind of social skill, for entrepreneurs. The majority of existing research on social skills has focused on the demand for those skills in established firms and the returns to them in labor markets (Börner et al. 2018, Deming 2017). Recent studies in the literature have begun to explore the effect of managers' social skills on firm productivity (Field et al. 2010, Hoffman and Tadelis 2018). Yet, this literature has not taken into account the value of different social skills in entrepreneurship. This study connects this literature to research on entrepreneurship and shows that the bundle of practices that we label *relational skills* create new strategic opportunities for entrepreneurs. Relational skills do so by enabling entrepreneurs to overcome social barriers and form new business relationships, based on the better matches with peers. We hope that our study will encourage further research into other aspects of social skills that may be valuable to entrepreneurs and into the mechanisms that enable entrepreneurs to benefit from those skills.

In addition to this, our study also contributes to the literature on entrepreneurship and the formation of business relationships. Existing research has primarily explained the formation of business relationships and networks using the characteristics of dyads and the pre-existing networks they are embedded in (Rivera et al. 2010). This work has emphasized homophily (Abraham 2019), proximity (Dahlander and McFarland 2013, Hallen 2008, Hasan and Bagde 2015), mutual ties (McFarland et al. 2014), and common organizational membership (Feld 1981) as predictors of business relationships. We build on this literature by examining a non-structural factor in the formation of networks: entrepreneurs' relational skills. This study shows that introducing entrepreneurs to relational skills affects the way they perceive interactions and the information they exchange in them. Relational skills increase and optimize the number of relationships they form. Given the ubiquity of social interactions in entrepreneurship, we think

that the results of this study are especially crucial for researchers interested in entrepreneurs' networks and endogenous network formation processes.

This study also contributes to research on entrepreneur training. A rapidly growing literature has emerged around the evaluation of different entrepreneur training programs (McKenzie and Woodruff 2014) and organizations that incubate entrepreneurs (Yu 2020). Although these studies help explain the efficacy of different management training programs and incubator structures, they have largely overlooked training entrepreneurs in soft skills. This study shows that training programs can also effectively teach soft skills with positive outcomes for entrepreneurs. Moreover, this study also demonstrates that training programs can be focal points where entrepreneurs create valuable relationships. As a result, this study sheds light on the untapped value of entrepreneur training programs as spaces where entrepreneurs can overcome social barriers and optimize their social networks.

Beyond the contributions to theoretical literatures, this study also makes a methodological contribution to field experimental methods. This experimental approach allows us to make causal evaluations of the relationship between relational skills, information exchange, and relationship formation. It also enables us to measure elements of information exchange and patterns of interactions at a more fine-grained level than most other studies of network formation. Our hope is that future studies will continue to build on this experimental methodology and add to it.

Boundary Conditions and Future Research Directions

The theory and data for this study are based on the effects of relational skills on entrepreneurs within a training program. We focus only ties formed between entrepreneurs in the same training

group because it was the most accurate way to measure the formation of new relationships. Self-reported accounts of interactions and relationships outside the training program ran the risk of introducing significant measurement error. To avoid this, we chose to limit the scope of this study to interactions during the training program and the formation of ties between participating entrepreneurs. Although this an important limitation of this study, most new business relationships are formed in the context of different organizations (Feld 1981, Small 2009). We therefore expect that the results from this study about the effects of relational skills readily generalize to entrepreneurs in other organizational contexts. Future research should explore how relational skills are affected by the kinds of organizations they are embedded in and how they affect tie formation outside those contexts.

Another important aspect of this study is that it was conducted in Togo, which is a compelling setting to test our theory, but is also a boundary condition. Togo was a context in which many entrepreneurs recognized the value of peer relationships but faced difficulties in forming them. As a result, entrepreneurs were receptive to relational skills training. Yet Togo is also a low-income country with weak formal market institutions, where entrepreneurs face high levels of uncertainty and risk in markets (Khanna and Palepu 2010). As a result, it is possible that in settings where norms about collaboration are stronger and formal institutions safeguard transactions, a similar intervention may not have as large or as measurable effects. Nevertheless, entrepreneurs those contexts also work in highly dynamic conditions and we therefore expect that relational skills will be of valuable to them as well.

In the design for this study the relational skills training was brief and the opportunities for interactions were constrained to the two days of the training program. Although the treatment was limited, results did show statistically significant changes in patterns of interaction and

performance. Nevertheless, it is unclear whether a longer and more thorough exposure to relational skills would alter the results. It is possible that with longer exposure actors might create too many ties, which become a source of requests and demands. Future studies should explore these dynamics and the potential for negative social capital with more comprehensive treatment designs.

The exposure to relational skills training took place within the context of a business training program, and the treatment was administered to entire groups at the same time. It is unclear how the results of this intervention would have changed if the relational skills training had happened to randomly selected individuals before they joined the training program. It is possible that the size of the effect may be diminished when training groups contain a mix of entrepreneurs who have been shown relational skills and entrepreneurs who have not. We are unable to determine the extent to which the treatment relies on the presence of a group norm, in addition to entrepreneurs being familiar with the practices. We believe that this represents an opportunity for future research on how relational skills depend on the structure and the norms of the spaces within which they are deployed.

Finally, this study examined relational skills in the case of entrepreneurs and, as a result, it remains unclear to what extent the relational skills intervention would be appropriate for individuals in organizations. Research suggests that employees' returns to relational skills are high and have been increasing over time (Deming 2017, Weinberger 2014). According to surveys of employers, relational skills and other soft skills such as teamwork are among the most highly sought after skills (Börner et al. 2018). We would therefore expect that in most organizational settings, employees and managers would benefit from better relational skills.

However, due to the emphasis of this study on entrepreneurs, it remains to be tested whether this dynamic replicates within established firms.

Conclusion

Recent field experimental research has provided causal evidence that exogenously increasing entrepreneurs' peer relationships improves their business performance. Outside the context of field experiments, however, entrepreneurs exhibit considerable heterogeneity in the size and composition of their social networks. We argue that this is, at least in part, due to entrepreneurs' lack of relational skills: the ability to communicate well and approach collaboratively interactions with new acquaintances. Entrepreneurs with better relational skills, we hypothesized, are able to form more business relationships, of which a larger proportion exhibit skill complementarity and are more ethnically diverse. Relational skills are also associated with better subsequent performance by entrepreneurs. Analyses of data from a field experiment in Togo provide supportive evidence for these claims. Relational skills appear to be a promising tool to catalyze the formation of relationships between entrepreneurs, even within some of the most challenging environments.

REFERENCES

- Abraham M (2019) Gender-role incongruity and audience-based gender bias: An examination of networking among entrepreneurs. *Administrative Science Quarterly* 65(1): 1-30.
- Aral S, Van Alstyne M (2011) The diversity-bandwidth trade-off. *American Journal of Sociology* 117(1): 90-171.
- Ashraf N, Bau N, Low C, McGinn K (2020) Negotiating a better future: How interpersonal skills facilitate intergenerational investment. *Quarterly Journal of Economics* 135(2): 1095-1151.
- Atkin D, Khandelwal AK, Osman A (2017) Exporting and firm performance: Evidence from a randomized experiment. *Quarterly Journal of Economics* 132(2): 551-615.
- Azoulay P, Liu CC, Stuart TE (2017) Social influence given (partially) deliberate matching: Career imprints in the creation of academic entrepreneurs. *American Journal of Sociology* 122(4): 1223-1271.
- Baum JA, Calabrese T, Silverman BS (2000) Don't go it alone: Alliance network composition and startups' performance in canadian biotechnology. *Strategic Management Journal* 21(3): 267-294.
- Bedwell WL, Fiore SM, Salas E (2014) Developing the future workforce: An approach for integrating interpersonal skills into the mba classroom. *Academy of Management Learning & Education* 13(2): 171-186.
- Bensaou BM, Galunic C, Jonczyk-Sédès C (2013) Players and purists: Networking strategies and agency of service professionals. *Organization Science* 25(1): 29-56.
- Berge LIO, Bjorvatn K, Tungodden B (2014) Human and financial capital for microenterprise development: Evidence from a field and lab experiment. *Management Science* 61(4): 707-722.
- Bloom N, Eifert B, Mahajan A, McKenzie D, Roberts J (2013) Does management matter? Evidence from india. *Quarterly Journal of Economics* 128(1): 1-51.
- Borghans L, Ter Weel B, Weinberg BA (2014) People skills and the labor-market outcomes of underrepresented groups. *ILR Review* 67(2): 287-334.
- Börner K, Scrivner O, Gallant M, Ma S, Liu X, Chewning K, Wu L, Evans JA (2018) Skill discrepancies between research, education, and jobs reveal the critical need to supply soft skills for the data economy. *Proceedings of the National Academy of Sciences* 115(50): 12630-12637.
- Brashers DE (2001) Communication and uncertainty management. *Journal of communication* 51(3): 477-497.
- Brewer MB (1979) In-group bias in the minimal intergroup situation: A cognitive-motivational analysis. *Psychological Bulletin* 86(2): 307-324.
- Cable DM, Gino F, Staats BR (2013) Breaking them in or eliciting their best? Reframing socialization around newcomers' authentic self-expression. *Administrative science quarterly* 58(1): 1-36.
- Cai J, Szeidl A (2018) Interfirm relationships and business performance. *Quarterly Journal of Economics* 133(3): 1229-1282.
- Cameron AC, Trivedi PK (2009) Microeconometrics with stata. *College Station, TX: StataCorp LP*.
- Campos F, Frese M, Goldstein M, Iacovone L, Johnson HC, McKenzie D, Mensmann M (2017) Teaching personal initiative beats traditional training in boosting small business in west africa. *Science* 357(6357): 1287-1290.

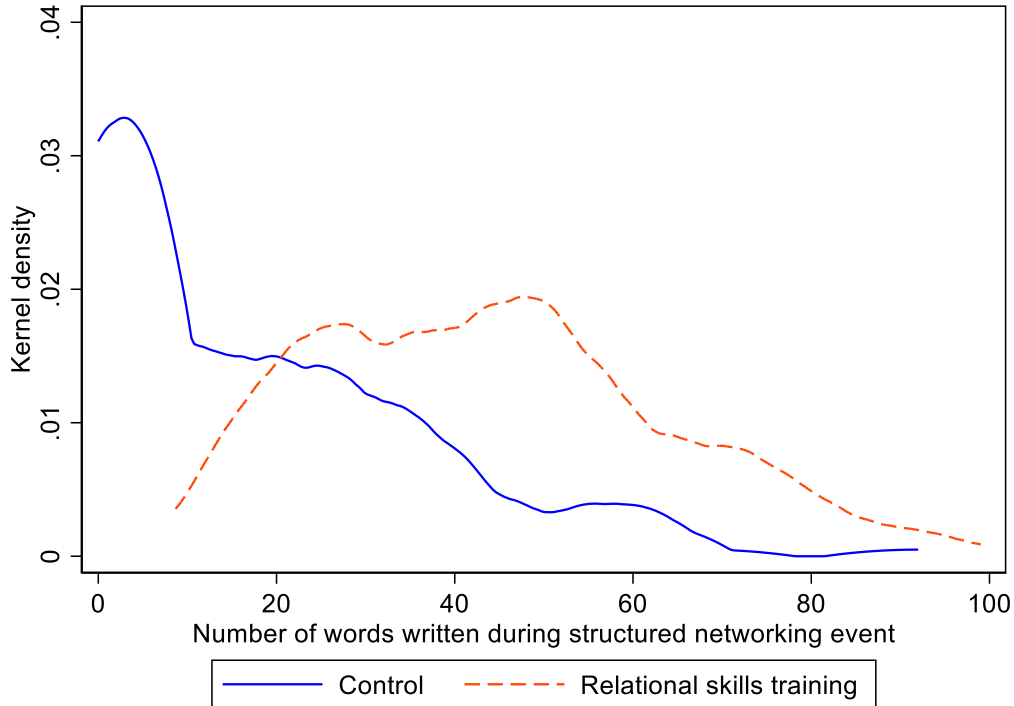
- Caria AS, Fafchamps M (2019) Can people form links to efficiently access information? *Economic Journal*.
- Carrell SE, Sacerdote BI, West JE (2013) From natural variation to optimal policy? The importance of endogenous peer group formation. *Econometrica* 81(3): 855-882.
- Casciaro T, Gino F, Kouchaki M (2016) Learn to love networking. *Harvard business review* 94(5): 104-107.
- Charmaz K (2014) *Constructing grounded theory* (Sage, Thousand Oaks, CA).
- Chatterji A, Delecourt S, Hasan S, Koning RM (2018) When does advice impact startup performance? *Strategic Management Journal* 40(3): 331-356.
- Cohen SL, Bingham CB, Hallen BL (2019) The role of accelerator designs in mitigating bounded rationality in new ventures. *Administrative Science Quarterly* 64(4): 810-854.
- Dahlander L, McFarland DA (2013) Ties that last: Tie formation and persistence in research collaborations over time. *Administrative science quarterly* 58(1): 69-110.
- De Mel S, McKenzie DJ, Woodruff C (2009) Measuring microenterprise profits: Must we ask how the sausage is made? *Journal of Development Economics* 88(1): 19-31.
- Deming DJ (2017) The growing importance of social skills in the labor market. *Quarterly Journal of Economics* 132(4): 1593-1640.
- Fafchamps M, Quinn S (2018) Networks and manufacturing firms in africa: Results from a randomized field experiment. *World Bank Economic Review* 32(3): 656-675.
- Feld SL (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.
- Field E, Jayachandran S, Pande R, Rigol N (2016) Friendship at work: Can peer effects catalyze female entrepreneurship? *American Economic Journal: Economic Policy* 8(2): 125-153.
- Giorcelli M (2019) The long-term effects of management and technology transfers. *American Economic Review* 109(1): 121-152.
- Hallen BL (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 BL, Eisenhardt KM (2012) Catalyzing strategies and efficient tie formation: How entrepreneurial firms obtain investment ties. *Academy of Management Journal* 55(1): 35-70.
- Hasan S, Bagde S (2015) Peers and network growth: Evidence from a natural experiment. *Management Science* 61(10): 2536-2547.
- Heckman J, Pinto R, Savelyev P (2013) Understanding the mechanisms through which an influential early childhood program boosted adult outcomes. *American Economic Review* 103(6): 2052-2086.
- Heckman JJ, Kautz T (2012) Hard evidence on soft skills. *Labour economics* 19(4): 451-464.
- Hochberg YV, Ljungqvist A, Lu Y (2007) Whom you know matters: Venture capital networks and investment performance. *Journal of Finance* 62(1): 251-301.
- Hoffman M, Tadelis S. 2018. *People management skills, employee attrition, and manager rewards: An empirical analysis*. National Bureau of Economic Research.
- Ingram P, Morris MW (2007) Do people mix at mixers? Structure, homophily, and the “life of the party”. *Administrative Science Quarterly* 52(4): 558-585.

- Khanna T, Palepu KG (2010) *Winning in emerging markets: A road map for strategy and execution* (Harvard Business School Press, Cambridge: MA).
- Kuwabara K, Hildebrand CA, Zou X (2018) Lay theories of networking: How laypeople's beliefs about networks affect their attitudes toward and engagement in instrumental networking. *Academy of Management Review* 43(1): 50-64.
- Lawler EJ, Thye SR, Yoon J (2008) Social exchange and micro social order. *American Sociological Review* 73(4): 519-542.
- 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.
- McFarland DA, Jurafsky D, Rawlings C (2013) Making the connection: Social bonding in courtship situations. *American Journal of Sociology* 118(6): 1596-1649.
- McFarland DA, Moody J, Diehl D, Smith JA, Thomas RJ (2014) Network ecology and adolescent social structure. *American Sociological Review* 79(6): 1088-1121.
- McKenzie D, Woodruff C (2014) What are we learning from business training and entrepreneurship evaluations around the developing world? *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.
- McPherson M, Smith-Lovin L, Cook JM (2001) Birds of a feather: Homophily in social networks. *Annual Review of Sociology* 27(1): 415-444.
- Nanda R, Sørensen JB (2010) Workplace peers and entrepreneurship. *Management Science* 56(7): 1116-1126.
- Paluck EL (2011) Peer pressure against prejudice: A high school field experiment examining social network change. *Journal of Experimental Social Psychology* 47(2): 350-358.
- Papke LE, Wooldridge JM (2008) Panel data methods for fractional response variables with an application to test pass rates. *Journal of Econometrics* 145(1-2): 121-133.
- Piezunka H, Dahlander L (2019) Idea rejected, tie formed: Organizations' feedback on crowdsourced ideas. *Academy of Management Journal* 62(2): 503-530.
- Prisbell M, Andersen JF (1980) The importance of perceived homophily, level of uncertainty, feeling good, safety, and self-disclosure in interpersonal relationships. *Communication Quarterly* 28(3): 22-33.
- Rivera MT, Soderstrom SB, Uzzi B (2010) Dynamics of dyads in social networks: Assortative, relational, and proximity mechanisms. *Annual Review of Sociology* 36 91-115.
- Ruef M, Aldrich HE, Carter NM (2003) The structure of founding teams: Homophily, strong ties, and isolation among us entrepreneurs. *American Sociological Review* 68(2): 195-222.
- Sandvik J, Saouma R, Seegert N, Stanton C (2018) The power (of) lunch and the role of incentives for fostering productive interactions.
- Schoar A (2016) The importance of being nice: Supervisory skill training in the cambodian garment industry. *Mimeo MIT*.
- Shane S, Cable D (2002) Network ties, reputation, and the financing of new ventures. *Management Science* 48(3): 364-381.
- Small ML (2009) How many cases do i need?' On science and the logic of case selection in field-based research. *Ethnography* 10(1): 5-38.
- Small ML (2009) *Unanticipated gains: Origins of network inequality in everyday life* (Oxford University Press, Oxford, UK).

- United Nations Development Programme (2017) *Human development indicators: Togo* (Human Development Reports, New York, NY).
- Uzzi B (1996) The sources and consequences of embeddedness for the economic performance of organizations: The network effect. *American Sociological Review* 61(4): 674-698.
- Vega-Redondo F, Pin P, Ubfal D, Benedetti-Fasil C, Brummitt C, Rubera G, Hovy D, Fornaciari T (2019) Peer networks and entrepreneurship: A pan-african rct.
- 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.
- Weinberger CJ (2014) The increasing complementarity between cognitive and social skills. *Review of Economics and Statistics* 96(4): 849-861.
- World Bank (2018) *Doing business: Togo* (International Bank for Reconstruction and Development Washington, D.C.).
- World Bank (2018) *World development indicators*, Washington, DC).
- Yamagishi T, Cook KS, Watabe M (1998) Uncertainty, trust, and commitment formation in the united states and japan. *American Journal of Sociology* 104(1): AJSv104p165-194.
- Yenkey CB (2015) Mobilizing a market: Ethnic segmentation and investor recruitment into the nairobi securities exchange. *Administrative Science Quarterly* 60(4): 561-595.
- Yu S (2020) How do accelerators impact the performance of high-technology ventures? *Management Science* 66(2): 530-552.
- Zuckerman EW, Sgourev SV (2006) Peer capitalism: Parallel relationships in the us economy. *American Journal of Sociology* 111(5): 1327-1366.

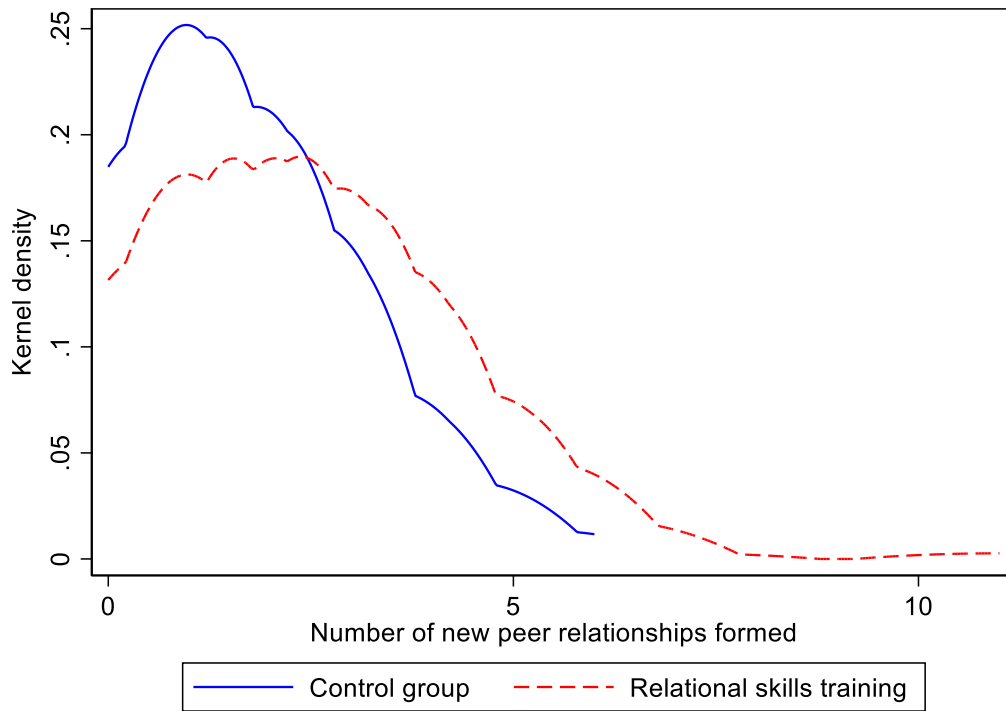
FIGURES AND TABLES

Figure 1. Relational Skills Increase Information Exchange



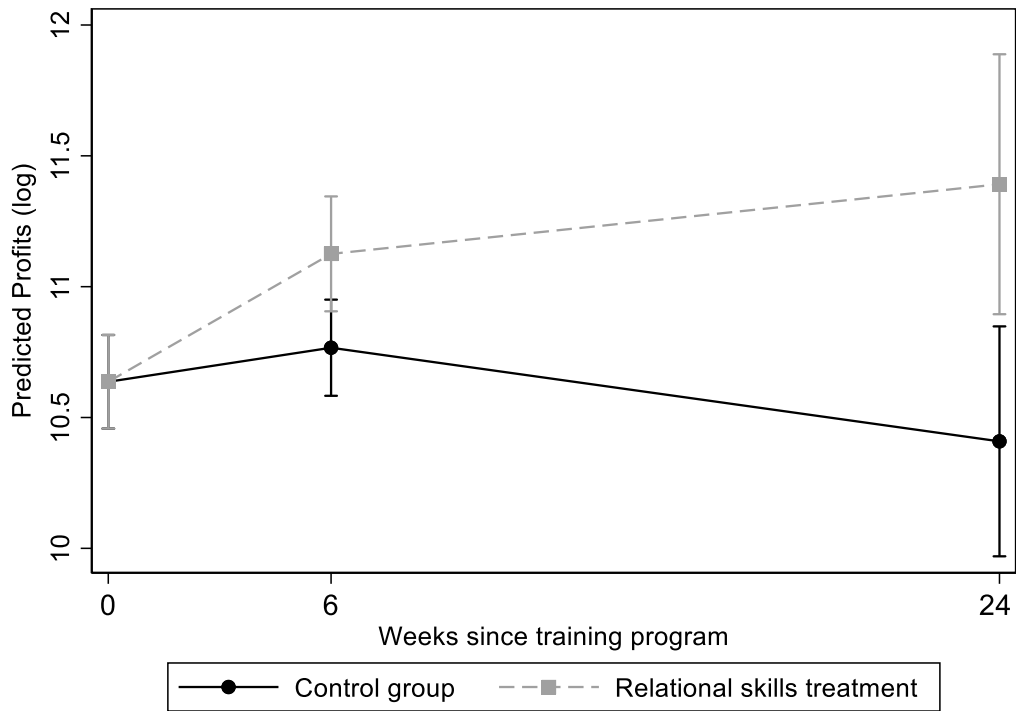
The kernel density plots above compare the number of words written by entrepreneurs in the control and treatment groups. For entrepreneurs in the control group (blue solid line), the density is much higher at lower numbers of words, indicating that most entrepreneurs wrote fewer than 20 words when describing their exchanges with peers. By comparison, the density plot for entrepreneurs in the treatment group (red dashed line) is shifted to the right, with a median near 50 words, indicating that in general these entrepreneurs had more to describe after an interactions with peers.

Figure 2. Relational Skills Increase Relationship Formation



The kernel density plots above compare the number of relationships formed by entrepreneurs in the control group and in the relational skills treatment group. Relationships are measured six weeks after the completion of the training program. The density plot for entrepreneurs in the control group (blue solid line) is skewed to the left and peaks at about one relationship formed, while the plot for those in the treatment group (red dashed line) is shifted to the right of control group and peaks at about two relationships formed, indicating that entrepreneurs in the treatment formed more new relationships.

Figure 3. Relational skills increase profits



The plots above compare the predicted log profits last month with 95% confidence intervals for entrepreneurs in the control group and in the relational skills treatment group. The profits for entrepreneurs in the control group (black solid line) do not change statistically significantly between baseline and 24 weeks after the training program. Profits for those in the treatment group (grey dashed line) indicate an increasing pattern

Table 1. Structure of Social Skills Training Session

Step	Duration	Content
1	20 minutes	<i>Interactions in business:</i> Instructors bring attention to interpersonal interactions in business. They define interpersonal interactions and describe what they often involve. Interactions are something all entrepreneurs are familiar with, but they may not have thought about the steps involved.
2	20 minutes	<i>Adopting a collaborative approach:</i> Having created a common starting point, instructors continue by teaching how entrepreneurs can use a collaborative approach in their interactions with others. This involves asking questions about others, identifying business problems or struggles others may be facing, and trying to offer help based on their own experiences and knowledge.
3	20 minutes	<i>Communicating about business:</i> Having described what collaborative interactions look like, the instructors show entrepreneurs what interactions that focus on business topics look like. These interactions consist of discussing developments in their businesses, as well as challenges. Communicating directly and clearly about business topics is a focus of this section.
4	1 hour	<i>Case study and questions:</i> This section begins with a description of practical steps for interactions: how to talk to new people, reaching out, following up. An interactive case discussion and commentary follows. The session ends with time for questions and answers.

Table 2. Summary Statistics and Bivariate Correlations

	Mean	S.D.	1	2	3	4	5	6	7	8	9	10	11	12	13
1 Cooperative perception of interactions	2.691	0.928													
2 Information exchange	30.872	23.929	0.004												
3 Num. of relationships formed	1.983	1.704	0.062	0.134											
4 Skill complementarity	0.155	0.300	0.048	0.126	0.122										
5 Ethnic concentration	0.833	0.256	-0.037	-0.134	-0.382	-0.070									
6 Profits at baseline (log)	10.695	1.958	0.007	-0.111	-0.133	0.099	0.077								
7 Relational skills training	0.518	0.500	0.131	0.571	0.229	0.134	-0.170	-0.135							
8 Ewe ethnicity	0.781	0.414	-0.008	0.099	0.188	0.039	0.031	0.042	0.015						
9 Female	0.355	0.479	0.057	0.021	0.042	-0.089	-0.005	-0.134	0.059	-0.083					
10 Completed primary school	0.748	0.435	-0.076	-0.022	-0.001	-0.085	-0.108	-0.069	-0.107	-0.112	0.006				
11 Employees (log)	1.701	3.361	-0.054	-0.052	-0.105	-0.084	0.105	0.276	-0.023	-0.049	-0.060	-0.047			
12 Firm age	10.590	7.649	0.002	0.070	0.095	0.108	0.096	0.085	0.113	0.234	0.019	-0.410	0.090		
13 Management practices score	0.577	0.266	0.004	0.040	0.065	0.189	0.023	0.275	0.033	0.077	0.017	-0.126	0.298	0.261	
14 Class size	23.465	2.777	0.084	0.297	0.123	-0.092	-0.035	-0.178	0.397	0.057	0.076	-0.013	-0.152	-0.001	-0.114

* N = 301 except for profits at baseline, which has an N of 273. This is because 28 participants had not tallied revenue and costs before the baseline survey.

Table 3. Negative Binomial Regressions Show Communication Practices Increase Entrepreneurs' Collaborative Perceptions and the Amount of Information Exchanged

	Collaborative perception		Information exchange	
	(1)	(2)	(3)	(4)
Social skills training	0.120** (0.039)	0.098* (0.044)	1.028** (0.233)	1.000** (0.248)
Ewe ethnicity		-0.012 (0.053)		0.056 (0.096)
Female		0.072 (0.040)		-0.082 (0.118)
Completed primary school		-0.049 (0.044)		0.122 (0.081)
Employees (log)		-0.003 (0.007)		0.000 (0.015)
Firm age		-0.001 (0.004)		-0.005 (0.007)
Management practices score		0.048 (0.071)		-0.069 (0.236)
Class size		0.006 (0.007)		0.051 (0.043)
<i>N</i>	301	301	301	301
Sector Fixed Effects	Yes	Yes	Yes	Yes

All models estimated using negative binomial regression. The outcome variable in Models 1 and 2 is the number of cooperative words selected by each participant to describe interactions. The outcome variable in Models 3 and 4 is the number of words written by individual participants during the networking session, during which they spoke to three randomly selected peer entrepreneurs. Constant estimated in each model but not shown. Robust standard errors clustered at the training-class level in parentheses. ** $p < 0.01$, * $p < 0.05$

Table 4. Regressions Show Communication Practices Increase the Number of Relationships Formed, Increase the Proportion of Relationships Formed that are Skill-Complementary, and Reduce the Level of Ethnic Concentration in Relationships Formed

	Relationships formed		Skill complementarity		Ethnic concentration	
	(1)	(2)	(3)	(4)	(5)	(6)
Social skills training	0.368** (0.120)	0.360** (0.109)	0.601* (0.291)	1.036* (0.417)	-0.631** (0.236)	-0.870** (0.178)
Ewe ethnicity		0.372** (0.132)		0.220 (0.340)		-0.053 (0.258)
Female		-0.010 (0.248)		-1.495 (0.973)		-0.407 (0.390)
Completed primary school		0.074 (0.122)		-0.031 (0.377)		-0.656** (0.219)
Employees (log)		-0.022 (0.019)		-0.187** (0.051)		0.102* (0.042)
Firm age		0.003 (0.007)		0.012 (0.011)		0.006 (0.010)
Management practices score		0.214 (0.203)		1.596** (0.521)		-0.212 (0.445)
Class size		-0.002 (0.021)		-0.177** (0.045)		0.060 (0.042)
N	301	301	301	301	301	301
Sector fixed effects	Yes	Yes	Yes	Yes	Yes	Yes

Models 1 and 2 are estimated using negative binomial regressions. The outcome variable in these models is the number of peer business relationships to other participants from the same class that each entrepreneur formed six weeks after the training program. The remaining models in the table were estimated using fractional logit regressions. The outcome variable in Models 3 and 4 is the proportion of all relationships formed that exhibit skill complementarity. The outcome variable in Models 5 and 6 is the Herfindahl index of concentration among ethnic groups of the relationships formed. Constant is estimated in all models but not reported. Robust standard errors, clustered at the training-class level, are in parentheses. ** $p < 0.01$, * $p < 0.05$

Table 5. Fixed Effects Regressions Show Communication Practices Increase Entrepreneurs' Profits in the Last Month

	(1)	(2)
Social skills training X Post-treatment period	0.673* (0.281)	0.681* (0.227)
Post-treatment period	-0.056 (0.154)	-0.039 (0.179)
Employees (log)		0.140* (0.050)
Management practices score		1.833** (0.513)
Observations	812	812
Number of entrepreneurs	301	301
Entrepreneur Fixed Effects	Yes	Yes
Sector Fixed Effects	No	No

The outcome variable in both models is entrepreneurs' logged profits during the last month. The post-treatment period is an indicator variable for the survey waves after the treatment was administered. Three survey waves are included in these analyses, the baseline, first follow-up six weeks after the training, and second follow-up six months after the training. Robust standard errors clustered at the training-class level are in parentheses. ** $p < 0.01$, * $p < 0.05$

Appendix

Relational skills, endogenous matching, and business performance:
A field experiment with entrepreneurs in Togo

May 29, 2020

APPENDIX A: Togo, qualitative data, and field experimental procedures

Togo

Togo is a small country in West Africa, with a population of approximately seven million people, about two million of whom reside in the capital Lomé. It is bordered on the west by Ghana, on the east by Benin, and on the north by Burkina Faso, to the south it rests on the Gulf of Guinea. As a former French colony, the main language for business is French. Togo became an independent country in 1960, but since then it has been largely isolated from the international community due to the dictatorial political regime and the human rights abuses the regime has committed. Togo is an income poor country. In terms of per capita income at purchasing power parity it ranks 207th of 216 countries (World Bank 2018). Similarly, the UN's Human Development Index (2017) ranks Togo 166th of 188 countries. Over 54% 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 (United Nations Development Programme 2017).

Togo is made up of multiple ethnic groups. The majority ethnic group in the south of the country is the Ewe group, whereas in the north it is the Kabiye group. Beyond these two main groups there are also significant populations of the Ana, Yoruba, and Kotokoli ethnic groups.

Qualitative data on entrepreneurs in Togo

During three trips to Lomé between 2015 and 2017 one of the authors conducted 47 semi-structured interviews with local entrepreneurs, each of which lasted between 30 and 90 minutes. Interviews included entrepreneurs at every stage of growth, from recently launched to several decades in business. The distribution of interviews was 17 micro businesses, 18 small businesses, and 12 medium businesses. The sample of entrepreneurs also covered a diverse array of sectors, including food processing, construction, clothing manufacturing, and electronics.

To build the sample the author used a staggered referral approach (Small 2009). The starting point were several local nonprofit associations whose social mission was the promotion of entrepreneurship. From there, he increased the sample by asking interviewees for suggestions of other entrepreneurs to approach. The author used a grounded theory approach in their interviews (Charmaz 2014). They began with general questions about what entrepreneurs felt were significant challenges in doing business in Togo and what they feel were important ways of overcoming those challenges.

After the first few interviews a pattern emerged that forming relationships was a complex process for entrepreneurs. Many complained about feeling isolated and having to manage alone the difficulties of doing business in Togo. Talking to entrepreneurs revealed that the process of connecting was often sidetracked because they were unable to get to the point where they could talk about their businesses or develop a foundation of mutual respect and trust.

Table A1: Illustrative Quotes

Interview code	Theme	Quote
YE 12	Creating contacts	I find that to get help in Togo it's complicated, because there's no information really. There are no real contacts, because you reach out to people through their emails and their websites, but you never get a response. Similarly, you send letters to request a meeting and it's as if you never did anything. It's frustrating.
KK1	Creating contacts	Here, when you want to meet someone, you must have someone closely connected to you to put you in touch with them, that introduces you. If you have not been introduced the contact is dead on arrival. It's a little complicated, but for us we cannot get in touch with anyone in the ministry, despite all of our achievements.
YE 4	Creating contacts	[...] entrepreneurs here are not able to reach out to people. Even mentors tell you not to talk to others about your business. All this slows down the evolution of your business.
YE13	Creating contacts	I'm stressed talking to others, it's a little difficult. You know it's a little difficult here in Africa to speak in public, here it's like we were afraid of people we didn't know.
YE7	Creating contacts	I would say that especially here in our locality, in our country, it is a little difficult, in the business field, to make contacts.
YE 13_2	Creating contacts	What I can say is that they [entrepreneurs] have good ideas but they cannot realize them because they cannot approach other people to discuss with them.
SY 1	Importance of relationships	Today if you do not know people your business does not pass.
AY 3	Lack of collaboration; Training to form ties	It's very difficult! Entrepreneurs prefer to work alone, unfortunately. But our job is that too: to be able to sensitize them, train them, explain to them the merits of living together and working together.

Field experimental procedures

The setting for the field experiment was the business training program “Marketing in Action.” The offices of the business training program were based in the suburb of Kegue, in Lomé. We registered all participants there between the 1st and 31st of March 2017. The first group of participants began their training on April 3rd 2017 and the last group finished their training on May 18th. After the end of the training program the offices remained open for several months in case any of the participants had questions or comments.

One author was present during the entirety of the training program in order to ensure that the registration of participants, the randomization into the treatment, the teaching of the program, and the discussion of relational skills were done correctly. In addition to the author, there were three full-time employees: one administrative assistant and two instructors. The administrative assistant helped manage the registration process and organize the teaching space during the

training. The two instructors were consultants from Lomé, who had previously taught similar training programs to Togolese entrepreneurs at the local university and in programs organized by the World Bank. The instructors were intimately familiar with the teaching material and how to convey them appropriately to local entrepreneurs. Finally, to help with the recruitment of participants, three local university students were hired to walk through the main business districts of Lomé and advertise the training program to business owners. We also advertised the training program to local entrepreneurs through a number of local nonprofits, incubators, business associations, Facebook pages, and WhatsApp groups. The canvassing and advertising produced 326 registrants into the training program.

Data collection was built around four different time points in the field experiment, the flow of which is shown in Figure A1. A pre-treatment survey was administered as individuals arrived for the first day of the training program. At the end of the second day of the training program, participants were given a training program exit survey, which included questions related to their experiences, their interactions with others, and a word-map for the word selection exercise. The third data collection point occurred six weeks after the training program, between May and June 2017. Instructors followed-up in person with the participants to survey them at the location of their business. It was important for the instructors to survey them and not a third party because there was an important bond of trust between the instructors and participants. Instructors were able to follow-up with 303 participants of the 316 who completed the training. Finally, the last point of data collection was the second follow-up survey, which took place six months after the training program, from November to December, 2017. Instructors were able to survey 301 of 303 participants in the second follow-up survey. Figure A2, below, shows the geographic distribution of the 301 entrepreneur participants across the city of Lomé that completed the training program and the follow-up surveys. It is worth noting that the broad canvassing and online advertising produced a geographically diverse set of participants.

Figure A1: Research Design Timeline

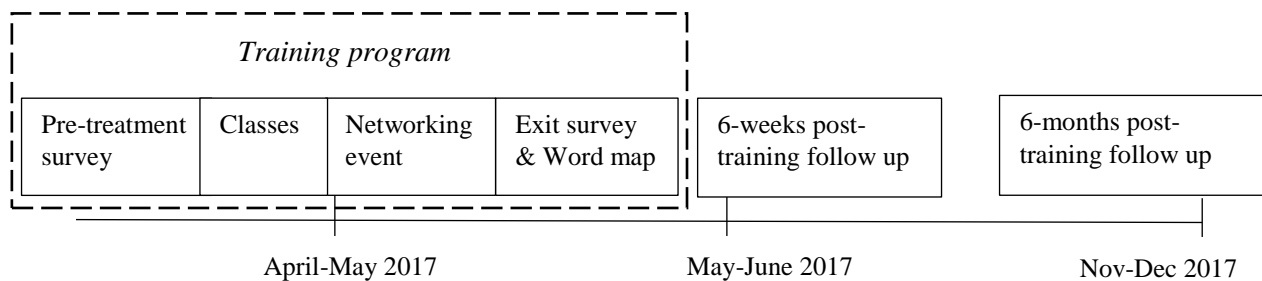
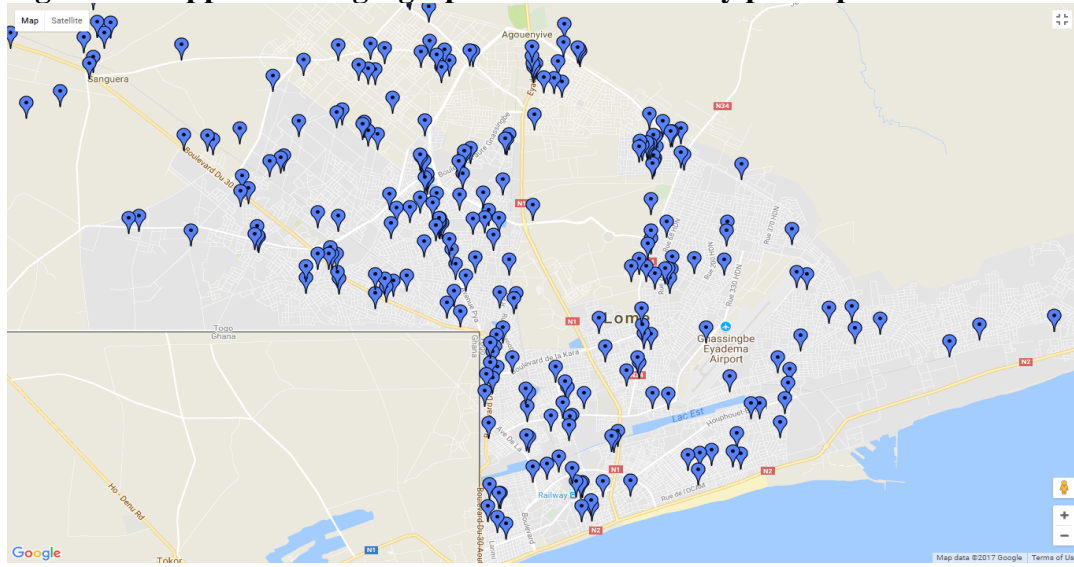


Figure A2: Approximate geographic location of study participants



APPENDIX B: Balance Test

To test the balance the treatment and control group and validate our randomization we ran a series of regressions, which are presented in Table B1. In each model the treatment, a binary variable indicating whether an entrepreneur received the relational skills treatment, is regressed on variables that capture entrepreneur and business characteristics. Models 1 to 8 test each characteristic on its own, while Model 9 tests all variables simultaneously. None of the coefficients in any of the models are statistically significant at conventional levels. This indicates that none of the entrepreneurs' or their businesses' characteristics are associated with receiving the treatment and that therefore the randomization of the treatment was successful, producing balanced control and treatment groups.

Table B1: Balance tests

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Ewe	0.034 (0.101)								-0.006 (0.075)
Female		0.079 (0.058)							0.058 (0.051)
Primary school			-0.153 (0.102)						-0.067 (0.074)
Fulltime employees (log)				-0.007 (0.018)					0.013 (0.011)
Firm age					0.010 (0.009)				0.011 (0.006)
Management practices score						0.126 (0.257)			0.045 (0.182)
Class size							0.072 (0.035)		0.064 (0.034)
Profits (log)								-0.035 (0.020)	-0.032 (0.017)
<i>N</i>	301	301	301	301	301	301	301	273	273

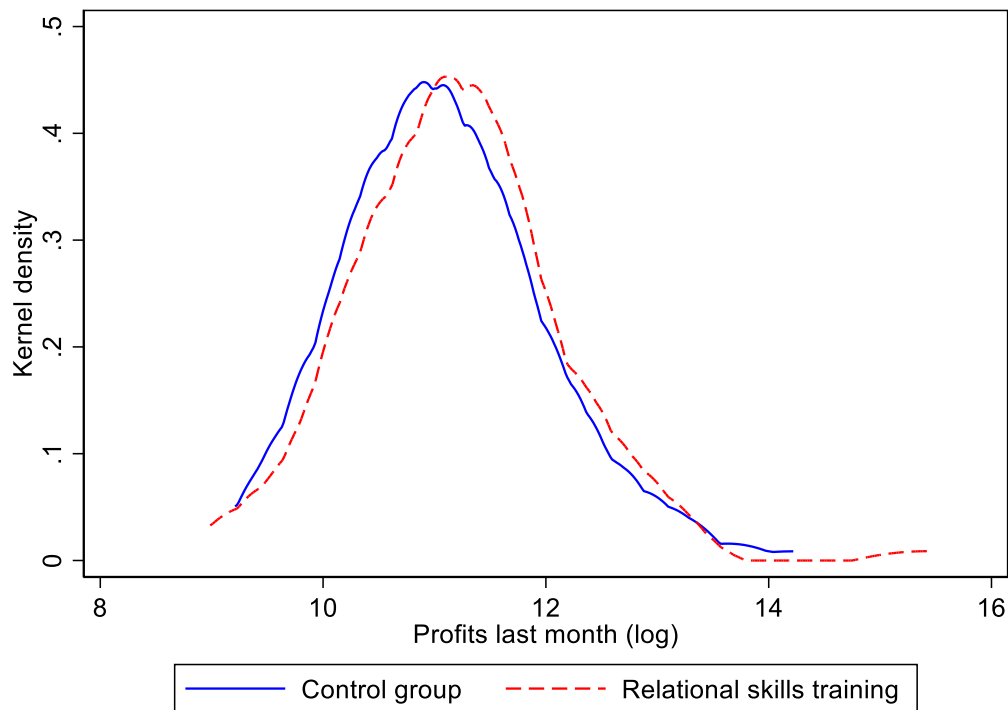
All models are estimated using logit regressions. The outcome variable in all models is a binary indicator of whether the entrepreneur received the treatment of communication practices. A constant is estimated in each model but not shown. Robust standard errors clustered at the training class level are in parentheses.

** $p < 0.01$, * $p < 0.05$

APPENDIX C: Interpreting performance effects

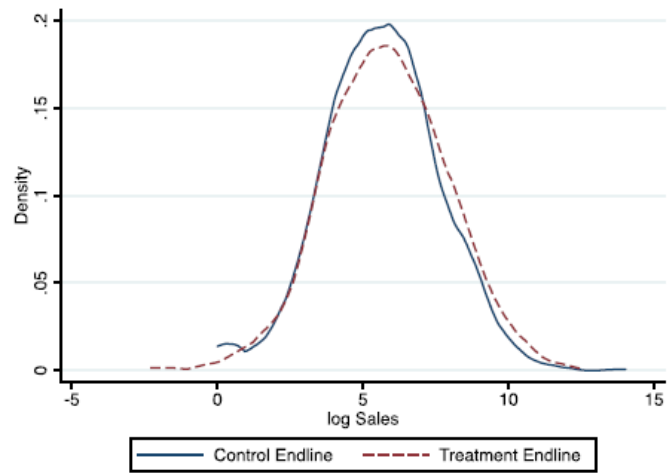
To complement the difference-in-differences plot shown in Figure 3, we also plotted the difference in business performance between the control group and the treatment group using a kernel density plot, shown in Figure C1 below. This figure plots the distribution of log profits for entrepreneurs in the control group and the treatment group, six months after the training program. The figure shows that the entire distribution of profits for the treatment group is shifted to the right, which means that entrepreneurs at every earnings level increased their performance. This represents a large substantive shift in performance, which, however, translates into only slight graphical change in Figure C1. To help interpret our Figure 3, we reproduce the equivalent plot published in Cai and Szeidl (2017), shown below in Figure C2. This plot contrasts the performance of the control and treatment groups in that paper at the end of their field experiment, where the treatment increased businesses' performance by 8.1%. As can be seen in Figure C2, the visual difference in the distribution of profits for treatment and control groups is relatively small, yet, as in our case, the substantive effect was large.

Figure C1. Relational Skills Increase Profitability



The kernel density plots above compare the logged profits in the last month earned by entrepreneurs in the control group and the treatment group, measured six months after the training program finished. The distribution of the profits for entrepreneurs in the treatment group (red dashed line) is shifted to the right of the distribution of profits for entrepreneurs in the control group (blue solid line), indicating higher profits on average.

Figure C2: Kernel Density of log Sales (Cai and Szeidl 2017, 1246)



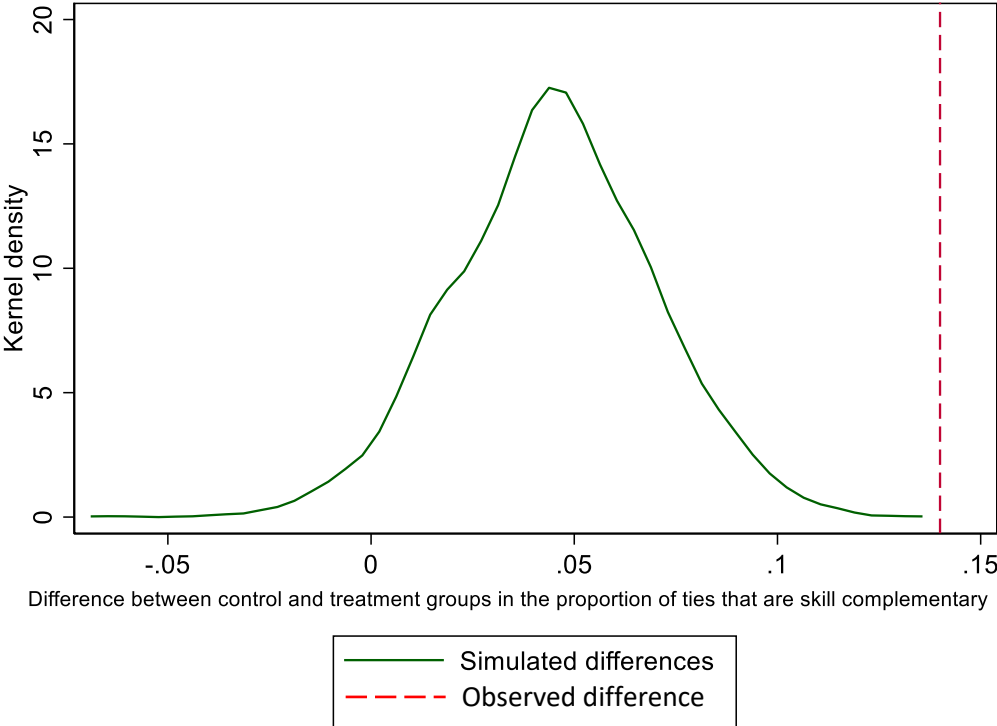
APPENDIX D: Validating skill complementarity using simulations

A potential concern with our results is that the treatment led to more skill complementary simply a byproduct of entrepreneurs forming more relationships. To show that the observed increases in skill complementarity in entrepreneurs' relationships in the treatment group are driven by the communication practices and not by the fact that they form more new relationships we ran a series of simulations. The simulation is meant to show what entrepreneurs' levels of skill complementarity would be if they were randomly forming relationships with others in their training class but still forming the same number of relationships. This allows us to rule out the possibility that our treatment did not change the types of people sought out as advice partners.

Our simulation begins with the real data we gathered on participating entrepreneurs. For each entrepreneur we know the number of business relationships they formed and the co-participants they formed them with. For the simulation, we take each entrepreneur and the number of relationships they formed and we direct these to a new set of randomly selected co-participants from within their training class. For each such simulation, we estimate the difference between the treated entrepreneurs and the control group entrepreneurs. We repeat this simulation process 2,000 times and this produces a distribution of values for the difference between the simulated control and treatment groups. In the actual data, the difference between the treatment group and the control group for skill complementarity was positive. If this was driven by non-random matching, we should not observe the same magnitude of difference between the control and treatment group in levels of skill complementarity.

Figure D1 plots the distribution of the simulated values of the difference between control and treatment groups in the skill complementarity of entrepreneurs' relationships. The vertical dashed line shows the observed difference in task complementarity between the treatment and control groups. As the figure shows, all the simulated values are substantially below the observed value and near zero. The mean value of the difference in skill complementarity for the simulated data are not statistically different from zero.

Figure D1: Simulated and observed difference between control and treatment group in proportion of skill complementary relationships



APPENDIX E: Estimating models using linear regression

In Tables E1 and E2 we replicate our results from Tables 3 and 4 in the paper using ordinary least squares (OLS) regressions in place of the negative binomial and fractional logit regressions. Replicating the results using OLS helps show that the key results of the paper are not model dependent and therefore more robust.

The coefficients in Tables E1 and E2 replicate closely the results in Tables 3 and 4 respectively. The coefficient signs and levels of statistical significance are comparable, as are the interpretations of their magnitudes.

Table E1: OLS regressions explaining the number of cooperative words chosen and the amount of information exchanged

	Cooperative perceptions		Information exchange	
	(1)	(2)	(3)	(4)
Relational skills training	0.326** (0.111)	0.265* (0.124)	27.822** (2.287)	26.849** (2.543)
Ewe ethnicity		-0.035 (0.135)		2.035 (2.763)
Female		0.196 (0.133)		-0.956 (2.735)
Completed primary school		-0.140 (0.143)		2.686 (2.942)
Employees (log)		-0.008 (0.023)		-0.120 (0.471)
Firm age		-0.002 (0.009)		-0.047 (0.175)
Management practices score		0.136 (0.233)		2.649 (4.782)
Class size		0.017 (0.023)		0.669 (0.477)
<i>N</i>	301	301	301	301
Sector fixed effects	Yes	Yes	Yes	Yes

All models estimated using OLS. The outcome variable in Models 1 and 2 is the number of cooperative words selected by each participant to describe interactions. The outcome variable in Models 3 and 4 is the number of words written by each participant during the networking session, during which they spoke to three randomly selected peer entrepreneurs. Constant estimated in each model but not shown. Robust standard errors clustered at the training class level in parentheses. ** $p < 0.01$, * $p < 0.05$

Table E2: OLS regressions estimating the number of relationships formed, proportion of relationships formed that are skill complementary, and ethnic concentration of relationships formed

	Relationships formed		Skill complementarity		Ethnic concentration	
	(1)	(2)	(3)	(4)	(5)	(6)
Relational skills training	0.710** (0.223)	0.678* (0.279)	0.117* (0.049)	0.109* (0.048)	-0.083* (0.035)	-0.108** (0.028)
Ewe ethnicity		0.609** (0.194)		0.028 (0.034)		-0.006 (0.034)
Female		-0.044 (0.352)		-0.088 (0.046)		-0.055 (0.054)
Completed primary school		0.152 (0.270)		-0.010 (0.049)		-0.071** (0.024)
Employees (log)		-0.041 (0.041)		-0.022** (0.007)		0.013* (0.005)
Firm age		0.008 (0.008)		0.002 (0.001)		0.001 (0.001)
Management practices score		0.431 (0.493)		0.201* (0.072)		-0.020 (0.063)
Class size		0.004 (0.044)		-0.020** (0.004)		0.007 (0.005)
<i>N</i>	301	301	301	301	301	301
Sector fixed effects	Yes	Yes	Yes	Yes	Yes	Yes

All models are estimated using OLS. The outcome variable in Models 1 and 2 is the number of peer business relationships to other participants from the same class that each entrepreneur formed six weeks after the training program. The outcome variable in Models 3 and 4 is the proportion of all relationships formed that exhibit skill complementarity. The outcome variable in Models 5 and 6 is the Herfindahl index of concentration among ethnic groups of the relationships formed. Constant is estimated in all models but not reported. Robust standard errors, clustered at the training class level are in parentheses. ** $p < 0.01$, * $p < 0.05$

APPENDIX G: Alternative measure of tie formation

In Table G1 we replicate the result that exposure to communication practices leads to increases in the number of peer business relationships formed using an alternative measure of relationship formation. In Models 1 and 2 of Table 4 of the paper we used the number of co-participant entrepreneurs that each entrepreneur met up with or spoke to on the phone as an indication of a relationship. In Table G1 we use the number of business cards that each entrepreneur received by the end of the training program. Business cards have been used to measure relationship formation in other studies of entrepreneurs (e.g. see Vissa 2011) and it helps to provide additional validation of a key outcome in this study. As Table G1 shows, Models 1 and 3 include the treatment variable, which is positive and statistically significant. It is worth noting that the sample size is slightly smaller because during the field experiment the handing out of personalized business cards to participants failed in the first class that was taught, as a result we lost those observations.

Table G1: Regressions estimating the number of business cards received

	(1)	(2)	(3)
Communication practices	0.732** (0.203)		0.624** (0.163)
Ewe ethnicity		0.050 (0.068)	0.044 (0.054)
Female		0.067 (0.065)	0.047 (0.069)
Completed primary school		-0.022 (0.087)	0.030 (0.069)
Employees (log)		0.019 (0.013)	0.019* (0.008)
Firm age		-0.001 (0.006)	-0.006 (0.007)
Management practices score		0.188 (0.194)	0.151 (0.165)
Class size		0.097** (0.029)	0.060* (0.027)
<i>N</i>	271	271	271

The outcome in all models is the number of business cards received from other participants in the same business training class. The models were estimated using negative binomial regressions. Robust standard errors clustered at the training class are in parentheses. ** $p < 0.01$, * $p < 0.05$

APPENDIX H: Testing for effects on gender diversity

Research on gender and entrepreneurship has stressed the differences in women entrepreneurs' ability to form new and diverse business relationships. Given this, a theoretically relevant dimension of diversity for entrepreneurs' portfolios of relationships is gender. Since our experimental treatment is theorized to affect the ethnic diversity of relationships, it is worth exploring whether it also affects the gender diversity of entrepreneurs' relationships. Table H1 tests this by estimating the effect of communication practices on the concentration of entrepreneurs' new relationships by gender. The effect of the treatment is negative, which aligns with out theoretical prediction that the treatment should make relationships more diverse. However, it is not statistically significant. This could be because there were not enough women entrepreneurs participating or that gendered cultural beliefs about entrepreneurship are so deeply entrenched that the treatment was not strong enough to have an effect. In either case, this is an important question for future research to pursue further.

Table H1: Regressions estimating the effect of communication practices on the gender diversity of relationships formed

	Gender diversity	
	(1)	(2)
Relational skills training	-0.291 (0.639)	-0.217 (0.563)
Ewe ethnicity		-0.400 (0.416)
Female		-0.963* (0.481)
Completed primary school		-1.173* (0.556)
Employees (log)		0.047 (0.082)
Firm age		-0.014 (0.014)
Management practices score		-0.288 (0.427)
Class size		-0.166 (0.097)
<i>N</i>	301	301
Sector fixed effects	Yes	Yes

All models estimated using fractional logit regressions. The outcome variable is the gender concentration of the relationships formed. Constant included but not shown in models. Robust standard errors in parentheses, clustered at the training class level. ** $p < 0.01$, * $p < 0.05$

APPENDIX I: Presentation slides for the treatment

Below we share the slides that were developed by the instructors and the authors to lead the training on relational skills. These slides are English translations of the original French used in the teaching (original French slides available upon request).

WELCOME TO THE TRAINING

Networking-Marketing



METHODOLOGY:

« **MANAGE YOUR**

BUSINESS BETTER

(GERME) »

MARKETING IN ACTION

2

THE RULES OF TRAINING



MARKETING IN ACTION

3

THE TRAINERS



MARKETING IN ACTION

4

And you, who
are you?



And what are your expectations
for this Training?

MARKETING IN ACTION

5

NETWORKING



MARKETING IN ACTION

LOMÉ, 2017

WHAT IS RELATION BUILDING ?

MARKETING IN ACTION

7

Networking is the process through which new
relations are **developed** and **maintained** with
the **people** around us.

MARKETING IN ACTION

8

Networking allows you to open up and go meet new people, to talk to them about your business, and to listen to them talk about theirs.

MARKETING IN ACTION

9

Every entrepreneur faces a multitude of obstacles, that a network of contacts makes easier to **overcome**.

MARKETING IN ACTION

10

The fundamental process of network building involves the following key elements:

- Meet new people
- Learn more about them
- Talk to them about yourself
- **Help each other reach your professional goals by sharing knowledge, resources time, energy, and friends.**
- Keep in touch and maintain the relationship

MARKETING IN ACTION

11

Engaging with others leads to the development of a personal relationship based on **mutual trust** and **mutual affection**.

MARKETING IN ACTION

12

Example :

- Kodjo goes to an event for active young entrepreneurs by a local non-profit association at Lomé. At the event, there is a lot of people – businessmen, officials, leaders, and others – most of which Kodjo had ever seen before. During a presentation, Kodjo sits next to Ephrem, another young entrepreneur. Even if it seemed a bit difficult, Kodjo says hi to Ephrem and introduces himself. It turns out that Ephrem is also a young entrepreneur. They start to talk about their respective businesses and the challenges they have faced.

MARKETING IN ACTION

13

- It turns out they share many common experiences regarding starting a business. They talk about them and Kodjo feels happy because he found someone who faced the same obstacles. They decide to keep in touch and to continue discussing the issues which they have faced as businessmen. Kodjo saves Ephrem's number on his cellphone. Later that day, he sends a text to Ephrem to thank him again. That also assured him that Ephrem would have his contact info if he wanted to get in contact with him.

MARKETING IN ACTION

14

COMMENTS ON KODJO'S BEHAVIOR ?

MARKETING IN ACTION

15

How relationships can help achieve your goals as an entrepreneur.

A. THE BOOMERANG EFFECT

If you have the initiative to give, participate and contribute with new knowledge, **the benefits will come to you** without doubt, even if they don't come immediately necessarily.

MARKETING IN ACTION

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By helping the other businessmen around us to learn, to improve their work and to innovate, **we improve our chances of success.**

B. Non zero-sum

By getting people in contact with one another, by giving your time and your experience and sharing them freely, you contribute to the **success** of others, which broadens the tax base and is beneficial for everyone.

IMMEDIATE ADVANTAGES OF BUILDING RELATIONS

1- Access to new information

The new knowledge established through networking can provide us with reliable and important information about opportunities we didn't know beforehand.

They can let us know about financing opportunities, contests or fairs in which we could participate. In addition, they can also provide us with information regarding the market, like, for example, information on the prices of our competitors or the products from suppliers.

2. Access to knowledge

Frequently, the people in our network possess in-depth knowledge on a wide variety of subjects which could be useful to us at different moments.

MARKETING IN ACTION

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3. Access references

New contacts can introduce you to people you couldn't meet otherwise. They could be people you have never heard about before or they could be well-known but hard to get in touch with.

MARKETING IN ACTION

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4. Access to advice

When you know a lot of people, you can ask them for their advice and opinion on your business. The more people you know, the more probable it will be that you receive a useful commentary, and what's more, it is possible that someone will propose an important improvement.

MARKETING IN ACTION

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5. Access to emotional support

The bigger the amount of people you have a **trusty relationship** with, the more you will be in a position to get support for your business. This support could lead to new clients for your business, but it could also include support declarations for your business from the local leaders that are well respected. In addition, this people could give you emotional support and encourage you to pursuit your work, despite all the hardships you will encounter.

MARKETING IN ACTION

6. Access to resources

The bigger the amount of people with which you have a **good relationship**, the more probable it will be that some of them will give you useful resources. For example, during tough times, they could give you a loan or lend you a piece of equipment you need.

HOW TO BUILD A POWERFUL NETWORK.

1. Make it a habit

Entrepreneurs must go to several events, participate in associations and non-profit organizations, be active in their communities and make the maximum effort to speak to new people. But, to accomplish this, it is necessary above all to make a **constant effort** and be patient.

2. Exchange information

The sharing of information creates the base for discussion. Pay special attention to what other says; listening actively will be the key that will allow you to possess engaging follow-up questions. Making the right questions then leads to the discovering of really useful information that others can offer to you.

3. Establish trust with the people you meet

True networking consists in finding ways to lead those that are part of your network towards success. It consists of working hard to give others more than you receive. Relationships are solidified with trust. **You earn trust not by asking what others can do for you, but what you can do for them.** In other words, the currency of true networking is not greed, but generosity.

The practical steps when building a new connection for our network.

1. Identify new people to meet

The first step consists in thinking about the type of people that could be **useful** for you in the future.

You must then mentally specify the types of people you must aim to meet.

To get in contact with them; start with a list of all the people that you already know, their job, and their location. Then, think of how they could connect you to the people you desire.

It is important that you meet with this people before asking for their help. **You should not reach out only when you need their help.**

2. Meet someone for the first time

Meeting someone for the first time is not easy, it is not enough to only tell people what you do, you must also keep them interested. To do this, it is important to create a conversation that is both memorable and engaging.

Listen to what they say. The more you put the person in the spotlight, the more they'll feel inclined to have a positive impression of you. Remind yourself that people love talking about themselves, so that you pose reflective and open questions like, «What project do you like more? » This way you allow yourself to understand what this person is passionate about.

To overcome the difficulty related to first encounters, it is useful to have an organized script like the following:

a) State the situation. It is logical that before you can speak in a persuasive way, in other words, before talking from a position of passion and personal experiences, you have to know where you are standing.

b) Express your feelings. We minimize the influence of emotions in our daily meetings, particularly in the business world. We tell ourselves that vulnerability is a bad thing and that we must be prudent when revealing our feelings. But we will feel more comfortable when using the words “I feel” with others, and our encounters will be more profound and

sincere. Your emotions are a gift of respect and kindness to your listeners.
c) Use an open question. A request expressed as a question – to which we can't just answer yes or no – is less menacing. «How do you feel about this topic? » «How can we solve this problem? » With a suggestion or an open question, you invite the other person to work towards a solution with you.

3. Follow-up

- Whenever you run into someone you would like to establish a relationship with, do one small complementary step to be sure he will never forget you: the follow-up. Being sure that a new connection will remember your name (and the favorable impression that you created) is a process you must carry out right after your meeting.

- Each time you meet someone, make sure to get an email, a phone number, or an address, and to save it correctly. Business cards are an excellent way to obtain this information, don't be afraid to ask for one and to give out yours/ Next, give yourself between 12 and 24 hours after the meeting for the follow-up. You can send a text, a WhatsApp message, and email or a letter in the mail.

Here are some reminders of what to include in your follow-ups:

- a) Always express your gratitude.
- b) Make sure to include an interesting element of your reunion or conversation – a joke or a humorous moment.
- c) Reaffirm the commitments you both made.
- d) Be brief and to the point.
- e) Always address the thank you note to the person by name.

- f) Use email and the **postal service**. The combination adds a personalized touch.
- g) Speed is essential. Send these as soon as possible after the reunion or the interview.
- h) A lot of people wait for the holidays to say thank you. Why way? Your follow-ups will be timelier, more appropriate, and they will be better remembered.
- i) Don't forget to also follow-up with the one that acted as an intermediary. Let them know how the conversation went and express your appreciation for their aid.
- j) Make the follow-up a habit. Make it automatic.

APPENDIX J: Survey questions

The variables used in our analyses relied on survey questions that were administered to entrepreneurs participating in the field experiment, as described in Appendix A. Below are the survey questions that correspond to data used in the construction of variables used in the analyses for Tables 3, 4, and 5.

1. Entrepreneur gender (“female”)

Q13 Sexe:

- Masculin
- Féminin

2. Ethnic group (“Ewe ethnicity”)

Q14 Quelle langue parlez-vous à la maison?

- Ewe
- Français
- Kabye
- Kotokole
- Autre: |_|_|_|_|_|_|_|_|_|_|

3. Entrepreneur education (“Completed primary school”)

Q16 Quel est votre niveau scolaire?

- Aucune scolarité complète
- École primaire complète (CEPD)
- Collège complet (BEPC)
- Lycée complet (BAC)
- Brevet de technicien supérieur (BTS)
- Licence universitaire
- Master ou Doctorat

4. Year the business was started (“Firm age”)

Q33 En quelle année avez-vous commencé votre entreprise? |_|_|_|_|

5. Employees in entrepreneurs’ business (“Employees (log)”)

Q44 Maintenant, je vais vous poser quelques questions concernant le nombre d’employés travaillant dans votre entreprise actuellement. (Par emploi à temps plein je veux dire qu’on travaille 8 heures par jour ou plus.)

	Nombre total
Combien d’employés à temps plein avez-vous?	_ _
Combien d’employés à temps partiel avez-vous?	_ _
Combien de stagiaire ou apprenti avez-vous employé?	_ _

6. Management practices score items

Q148 Dans les derniers 6 mois avez-vous:

Q50 Visité un de vos concurrents pour voir quel prix ils demandent?

- Oui (1)
- Non (2)

Q51 Visité un de vos concurrents pour voir quels produits ils vendent ?

- Oui (1)
- Non (2)

Q52 Demandé à vos clients existants s'il y a d'autres produits qu'ils aimeraient que vous vendiez ou produisiez?

- Oui (1)
- Non (2)

Q53 Parlé avec au moins un ancien client pour savoir pourquoi ils ont cessé d'acheter de votre entreprise?

- Oui (1)
- Non (2)

Q54 Demandé à un fournisseur quel produits se vendent bien dans votre secteur?

- Oui (1)
- Non (2)

Q57 Au cours des trois derniers mois, avez-vous utilisé une offre spéciale pour attirer des clients?

- Oui (1)
- Non (2)

Q56 Au cours des trois derniers mois, avez-vous utilisé une forme de publicité?

- Oui (1)
- Non (2)

Q59 Avez-vous fait quelque chose pour mesurer l'efficacité de la publicité?

- Oui (1)
- Non (2)

Q58 Au cours des trois derniers mois, avez-vous tenté de négocier avec un fournisseur pour un meilleur prix sur vos matières premières?

- Oui (1)
- Non (2)

Q69 Au cours des trois derniers mois, avez-vous comparé le prix ou la qualité offerte par d'autres fournisseurs à celle de votre fournisseur actuel ?

- Oui (1)
- Non (2)

Q66 Est-ce que il y a eu un moment où l'entreprise n'a pas eu assez de stock ou de matières premières pendant les 3 derniers mois?

- Oui (1)
- Non (2)

Q62 Gardez-vous des documents commerciaux écrits?

- Oui (1)
- Non (2)

Q61 Enregistrez-vous chaque achat et vente faite par l'entreprise?

- Oui (1)
- Non (2)

Q76 Pouvez-vous utiliser vos documents pour voir facilement combien d'argent est disponible à votre entreprise à tout moment?

- Oui (1)
- Non (2)

Q75 Utilisez-vous régulièrement vos documents pour savoir si les ventes d'un produit particulier augmentent ou diminuent d'un mois à l'autre?

- Oui (1)
- Non (2)

Q74 Avez-vous calculé le coût de production de chacun de vos produits principaux?

- Oui (1)
- Non (2)

Q73 Savez-vous lesquels de vos produits vous apportent le plus profit par unité?

- Oui (1)
- Non (2)

Q72 Avez-vous un budget écrit, qui vous indique combien vous devez payer chaque mois pour le loyer, l'électricité, l'entretien de l'équipement, le transport, la publicité, et d'autres dépenses de l'entreprise?

- Oui (1)
- Non (2)

Q80 Si vous vouliez demander un prêt bancaire, et vous étiez demandé de fournir des documents pour montrer que vous avez assez d'argent chaque mois pour rembourser un prêt, est-ce que vos documents vous permettraient de le démontrer à la banque?

- Oui (1)
- Non (2)

Q79 Examinez-vous la performance financière de votre entreprise et analysez-vous les points à améliorer chaque mois?

- Oui (1)
- Non (2)

Q78 Avez-vous un objectif pour les ventes au cours de la prochaine année?

- Oui (1)
- Non (2)

Q77 Est-ce que vous comparez votre performance à cette cible au moins une fois par mois?

- Oui (1)
- Non (2)

Q82 Avez-vous fait un budget des coûts auxquels votre entreprise fera face l'an prochain?

- Oui (1)
- Non (2)

Q83 Avez-vous fait un compte de résultats?

- Oui (1)
- Non (2)

Q131 Avez-vous fait un tableau de flux de trésorerie au cours de l'an passé?

- Oui (1)
- Non (2)

Q132 Avez-vous fait un bilan annuel pour l'an passé?

- Oui (1)
- Non (2)

Q133 Avez-vous fait l'état de vos résultats / dépenses annuelles?

- Oui (1)
- Non (2)

7. Entrepreneurs' business performance ("Profits last month, log")

Q110 Quelle était la valeur de vos bénéfices en FCFA au cours de

	La semaine dernière (1)	Le mois dernier (2)
Valeur estimée (1)		

8. Interactions with co-participants (“Relationship formation”)

Q0.2 Depuis la formation, est-ce que vous avez rencontré des personnes qui ont fait la formation avec vous ?

Oui

Non

Q0.3 Si oui, s’il vous plaît nommez-les :

Personne 1 _____

Personne 2 _____

Personne 3 _____

Personne 4 _____

Personne 5 _____

Personne 6 _____

9. Collaborative words

S’il vous plaît, encerclez les **5 mots** qui décrivent le mieux la formation que nous avons fait :

Concurrence	Rivalité	Connecter
Discuter	Echanges	Abattre
Amitié	Partenariat	Compétition
Rapporter	Collaboration	Bénéfices
Association	Pouvoir	Adversaire
Maximiser	Aider	Eloigner
Communication	Partage	Gagner
Dominer	Alliance	Confiance

10. Skill entrepreneur wants to learn (“Skill complementarity”)

Dans l'espace ci-dessous, veuillez décrire une chose que vous aimeriez améliorer dans votre entreprise au cours des deux prochains mois:

Veuillez choisir s'il s'agit d'un changement dans:

- Marketing
- Comptabilité
- Financement
- Tenue des dossiers
- Recherche de fournisseurs
- Achat de stock
- Employés et embauche