Stronger Together: Promoting Export through Female-only SME Consortia

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Abstract

Exporting provides business opportunities with high returns but requires high managerial knowledge and skills, the network and confidence to create international contacts, and the scale to overcome fixed costs. All of which female entrepreneurs tend to lack. We conduct an RCT to test an intervention that tackles these problems simultaneously. Over two years, export-interested female entrepreneurs in complementary sectors receive support to establish a consortium, a legally connected group of firms, to cooperate in exporting. In addition, firms receive business and export consulting. At midline, two-thirds of the female entrepreneurs decided to become consortium members. Consortia members doubled their regular contact with other female entrepreneurs, gained entrepreneurial confidence, improved management practices, and increased their companies' profit. While export outcomes have not increased yet, consortia members are more likely to know Tunisia's trade agreements, have potential foreign clients, and invest in their exports.

Keywords: Female Entrepreneurs, Export, Consortia, SME, Network
JEL Codes: D04, D22, F14, L52, O12, O14, O25

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1 Introduction

Export-led growth has become the dominant contemporary developmental strategy and governments worldwide operate programs to help firms enter global value chains and access foreign markets. Yet, there is a fierce debate and limited, robust empirical evidence about the contribution of governmental policies to promote export (Dollar and Kraay, 2004; Krueger, 1997; Panagariya, 2011; Wade, 2018; Lane, 2020; Comi and Resmini, 2020), small and medium-sized (McKenzie et al., 2021), and female-owned firms (Jayachandran, 2021; Ubfal, 2023).

Few women worldwide decide to engage in entrepreneurship (Campos et al., 2019) and even fewer in export (World Bank and WTO, 2020; Ackah et al., 2020). There are at least three main barriers to female entrepreneurs and their export activity. The first one is scale, which is essential to overcome the fixed costs involved in exporting (Melitz, 2003). Female-owned businesses tend to be smaller and less productive, and operate in industries with lower returns (Fang et al., 2022; Allison et al., 2021; Campos et al., 2018). Another barrier is professional networks, which are essential for entering new markets and establishing relational contracts in international trade (Chaney, 2014; Gereffi et al., 2005). Yet, female entrepreneurs tend to have smaller networks (Campos et al., 2019; World Bank and WTO, 2020) and women that succeed in male-dominated business areas, are rare and often assisted by male family members (Alibhai et al., 2017). Finally, doing business abroad requires confidence to maneuver unknown (legal) business environments and developing trust in mostly male trading partners, which female entrepreneurs tend to be more concerned about (Ashraf et al., 2019; Fang et al., 2022; Ackah et al., 2020).

In this study, we examine whether helping small female-led firms connect and establish a joint legal entity, a consortium, may help address the above-illustrated problems at a time. Export consortia are legal entities created through contractual agreements between companies to cooperate in exporting (UNIDO, 2003). We consider four impact dimensions. Firstly, export consortia ought to provide female entrepreneurs with a new network of like-minded professional peers, disconnected from family members and friends. Secondly, regularly meeting and exchanging with other female entrepreneurs should encourage and strengthen female entrepreneurs' self-confidence, in particular in business-related environments. Thirdly, consortia members may learn from other network members (Cai and Szeidl, 2018; Fafchamps and Quinn, 2016; Asiedu et al., 2023) and, in this orchestrated consortia creation, from consultants who support the process (Iacovone et al., 2021), e.g., about business management practices, potentially triggering firms to change their business and innovate. Lastly, the consortia may also provide women with a safe space and a formal organization to do business abroad in a trusted environment (Ackah et al., 2020; Alibhai et al., 2017; Campos et al., 2017) and pool their resources to overcome the fixed costs of export (Melitz, 2003).

We partner with the Tunisian export promotion agency and international donors to study the effect of export consortia on female entrepreneurs in Tunisia

in a randomized controlled trial. We recruit 176 eligible and interested female-led SMEs in a nationwide communication campaign. 87 out of 176 are randomly invited to join one of four consortia, with the remaining firms serving as a pure control group. The consortia are created based on three shared characteristics: the interest to export, sectoral membership, and the CEO's gender. In the first year, the implementing agencies and consultants work with the firms to establish the consortium. Female entrepreneurs are invited to workshops designed to provide knowledge and intelligence regarding export, legal formats for cooperation between firms, and fostering a group spirit and a sense of cooperation. In addition, firms are offered up to five individual business coaching sessions and are invited to participate in two networking sessions with potential clients. At the end of this period, firms must decide in what format they would like to continue cooperating and sign a cooperation agreement. In the second year, the treatment focuses on developing the formal structures of the consortia, such as joint decision-making processes or hiring permanent staff, and fostering consortia's export activities, e.g., via subsidized participation in export fair.

After the first phase, consortia construction, we document that the export consortia have significantly enlarged female entrepreneurs' networks and entrepreneurial confidence. Participating in the consortia doubled female entrepreneurs' regular contact with other female CEOs and changed their perception of other CEOs and their networks. They now see other CEOs more as partners than as competitors. Consortia membership also strengthened female entrepreneurs' self-confidence and independent decision-making. Participants report significantly higher levels of entrepreneurial and export-related self-efficacy and locus of control and seem less likely to feel obliged to consult male authorities before making strategic entrepreneurial decisions.

Moreover, consortia participants have benefited from knowledge transfers, albeit in a more limited and different way than expected (and desired) based on similar network interventions (Cai and Szeidl, 2018; Iacovone et al., 2021; Fafchamps and Quinn, 2016; Asiedu et al., 2023). On the positive side, consortia participants report using more key management practices (Bloom et al., 2013, 2020), seemingly acquired from the consultants accompanying the consortia creation process. Against our expectations, consortia participants learned less from each other. This seems to be driven by two aspects. Firstly, the workshops and coachings focused on consultant-member interaction and less on member-member interaction. Secondly, we find that three of the four consortia take-up is driven by smaller, younger, and less export-experienced firms. In contrast, larger, established, and export-experienced firms dropped out, reducing the average peer quality, knowledge transfer, and business synergies between smaller and larger peers. This dynamic is reversed for the fourth consortium, in which smaller and less export-experienced firms drop out.

Finally, the export consortia creation process did not induce firms to improve or invest in their export readiness yet and, accordingly, we do not find an effect on firms' export performance at midline. This is not too surprising given that, as outlined, consortia have just been created, and the second stage of the treatment will focus on joint export (promotion) activities. Having said this,

there is some encouraging evidence that consortia members are in the process of developing their export sales. Consortia members are likelier to know Tunisia's trade agreements, have potential foreign clients, and invest in their export.

This study contributes to the large literature on developing firms' productive capabilities (McKenzie et al., 2021), and more specifically, to the strands about the promotion of female entrepreneurs (Jayachandran, 2021; McKenzie et al., 2021; Ashraf et al., 2019) and cooperation between firms as a means to firm growth (Asiedu et al., 2023; Cai and Szeidl, 2018; Fafchamps and Quinn, 2016; Brooks et al., 2018; Hardy and McCasland, 2021). Campos et al. (2019); World Bank and WTO (2020) suggested studying interventions to expand female entrepreneurs' networks and help them export have high societal benefit as "causal evidence is not available on the business performance of women-led businesses" (Ubfal, 2023). We provide experimental evidence that governments (export) consortia are one potential policy tool to enlarge female entrepreneurs' networks, foster their management practices, and strengthen their entrepreneurial confidence and empowerment.

Secondly, this study is one of the first RCTs in the area of export promotion and, to the best of our knowledge, the first RCT to study export consortia. While exporting is generally considered beneficial, it is still unclear how to help firms export. First RCTs of export promotion measures found null effects (Kim et al., 2018; Breinlich et al., 2017; Iacovone et al., 2023) and quasi-experimental studies mixed results (Makioka, 2019).[1] Export consortia have been primarily assessed by qualitative case studies (Forte and Oliveira, 2019) with the exception of two early studies in Chile that find positive and significant effects on firms' probability of exporting, but say little about mechanisms (Alvarez, 2004; Álvarez et al., 2000)

In the following, section 2 provides information about female entrepreneurship in Tunisia, including evidence from focus group interviews, section 3 outlines the research design, section 4 describes characteristics of the firms in the sample and the main outcomes, section 5 details the regression specifications and section 6 lays out results and mechanisms.

2 Context

Women in the Middle East and North Africa have the lowest rates of female entrepreneurship among global regions, with only around 10 percent of all firms being managed by women (Figure 1) (Campos et al., 2019). In Tunisia, 19 percent of formal businesses are headed by women and only 5.3 percent of corporate board members are women (Ben Mohamed et al., 2022). Women's labor force

[1] Notable exceptions are Munch and Schaur (2018) who illustrate that more actionable information, like market intelligence, can promote exporting, especially for firms with fewer than 25 employees, and Makioka (2021) who provides evidence that subsidized visits to geographically distanced trade fairs can help firms enter new export markets. Furthermore, Atkin et al. (2017) show that selling to international buyers can lead to quality and productivity improvements. However, the study does not examine how to help firms get in contact with international clients in the first place.

participation rate in Tunisia is roughly 27 percent, 42 percent among women in lower-income households, even though two-thirds of university graduates are women (Hattab, 2012).

2.1 Female entrepreneurship in Tunisia

Based on focus group interviews, we provide further details about and show that the situation of female entrepreneurs in Tunisia resonates with the existing evidence presented in the discussion. The first recurrent thread documented in the interviews and existing literature (Jayachandran, 2021) is the tension between the role of an entrepreneur and the traditional role of women as mothers and wives, caretakers of the household, and family members. Despite their enterprise, many female entrepreneurs maintain responsibility over private household matters, in particular child care. Female entrepreneurs described in several ways how such traditional role models act as an additional barrier or tax on their business and exporting.

Self-confidence Many female entrepreneurs have encountered opposition to their decision to become an entrepreneur, which lowered their confidence, was emotionally draining, including even divorcing partners, and limited their ability to operate their business (e.g., one entrepreneur kept her entrepreneurship a secret from family members). Several female entrepreneurs describe cases of discrimination in business conduct, such as access to funding, dealing with public authorities, and interactions with clients, competitors, and employees.[2] For example, several female entrepreneurs expressed they had difficulty accessing bank loans. On the one hand, this is due to unequal inheritance causing women to hold smaller capital, both fluid and physical, e.g., home ownership titles that could act as a mortgage (Hattab, 2012). At the same time, female entrepreneurs felt lower regard and trust of male bank employers in their capability to develop a profitable business, which resonate with experimental evidence from bank officers lending behavior to Turkish SMEs (Alibhai et al., 2019). In a similar realm, female entrepreneurs described how some civil servants or clients doubted their competence (while granting it to less competent male entrepreneurs without doubt), causing them a disadvantage in winning contracts and receiving licenses.

Networks Female entrepreneurs report difficulty to network after work due to their sole responsibility for household work. After-work networking in Tunisia takes place primarily in coffee shops (cafés) and restaurants, which are regularly either male-dominated or gender-separated, making it difficult to enter male business circles. As a result, female entrepreneurs are less informed, e.g., about public support programs or business opportunities. Note that our baseline survey results about the composition of female entrepreneurs partly opposed prevalent views in the literature on female entrepreneurs (Ubfal, 2023). The fe-

[2]Several female entrepreneurs also emphasize the supportiveness of their (male) family members, civil servants, or other entrepreneurs, reflecting Tunisia's diverse society. A few female entrepreneurs even call into question whether gender matters in running a business or put the blame on female entrepreneurs' lack of confidence, risk-taking, assertiveness etc.

male entrepreneurs in our sample have more male than female business contacts, much larger business contacts outside their family than within their family, and many have sizeable networks.

Business management skills Several female entrepreneurs feel they lack business management skills (which is confirmed in our surveys). Existing research has shown that female entrepreneurs in Tunisia, in particular at the early stage of business development, are less likely to have benefited from formal training in entrepreneurship (Drine and Grach, 2012).

Exporting Female entrepreneurs explain they are hesitant to travel abroad to identify business partners for export as they feel obligated to look after their children and are concerned about their personal security, which resonates with evidence from female entrepreneurs in Ghana (Ackah et al., 2020). International travel requires women to find childcare, which is often only provided by family members, absent professional service provision. Finally, some female entrepreneurs also express that the uncertainty and risk related to exporting discourage them.

We asked focus group participants to rate the relative importance of each barrier for operating their business on a scale from one, not so important, to seven, very important (Table 1). The lack of access to funds is the most important barrier. The second most important perceived barrier is the risk, such as high costs, uncertainty, and competition, related to operating a business and exporting. Overall, the large heterogeneity reflects that the relative salience of each barrier depends on the individual entrepreneur.

3 Research design

Table 2 provides an overview of the research design and project implementation. The treatment intervention was designed with the various challenges in mind female entrepreneurs face in Tunisia presented in the previous section (section 2). The intervention was co-designed and implemented with the German Development Agency, GIZ, and Tunisia's export promotion office (CEPEX). The GIZ and CEPEX had already created three (majority-male) export consortia during the prior cooperation period (2018-2020). Prior to the intervention, we interviewed male entrepreneurs and consultants who participated in this first phase as well as female entrepreneurs, consultants, and representatives of the national federation of female entrepreneurs. Based on these interviews, we co-designed the intervention in cooperation with CEPEX and the GIZ.

3.1 Treatment

The treatment takes place over two years and is roughly divided into two periods, each taking about one year.

Consortia Creation The first period, *Consortia Creation*, focuses on creating the consortium and strengthening the entrepreneurial self-confidence, business and exporting skills, and networks of the female entrepreneurs. Female

entrepreneurs receive a bundle of workshops, personal coaching, and networking events. The core part is a series of three two-day long workshops mixing knowledge inputs, e.g., regarding general and export-specific business management, gender awareness and communication training, and team building and information about different formats of cooperation and mentorship between companies (e.g., joint ventures, co-contracting, informal and formal business associations, consortia). Tables 19, 20, and 21 provide a detailed overview of the workshops. Each workshop is facilitated by business consultants and implementing partners, takes place either in a neutral location in Tunis or at the Tunisian export promotion offices headquarters, and participants are offered accommodation (but no mobility support). Beyond the emphasis on strengthening female entrepreneurs' business management and exporting skills, this part focused on fostering a group spirit, a sense of mutual help and empowerment based on the joint experience as female entrepreneurs and the mutual objectives to build profitable enterprises and seize export opportunities.

The workshops are complemented by up to five personal coaching sessions, two networking events with entrepreneurs in sub-Saharan countries, and a Slack channel via which the women can exchange and receive the inputs used for the workshops. In Table 22 and Figure 15, we categorized and analyzed the topics that female entrepreneurs discussed during their coaching based on administrative project documents. The majority of issues, 52 percent, were related to core business management fields, such as marketing (17 percent), business development (16 percent), and product/service development (15 percent). The second most prevalent category was accounting and financial management, which included most importantly price setting and balance sheet accounting. Two other frequent issues, reflecting the analysis of the context in section 2, were access to funding sources (8 percent) and access to government support programs (6 percent), in particular, Tunisia's start-up label (which offers several advantages for firms beyond the positive signaling effect). What is more, 6 percent of the issues were related to personal development, such as a lack of self-confidence.

At the end of the first period, the firms could decide what format of cooperation they wanted to pursue. All four groups decided to establish a consortium as the entrepreneurs appreciated the commitment and certainty offered by the existing legal framework.[3] The signature of the legal agreements was celebrated at a public event at the national export promotion agency, establishing a consortium as a legal entity with its own organizational structure, such as a president and joint decision-making processes.

Export Promotion The second period, *consortia export promotion*, is currently ongoing and focuses on making the consortia operational and promoting their export. During this period, implementing partners and consultants work with the consortia on establishing a consortia-level product matrix, developing export plans for target markets, and subsidize export promotional activities for each consortium (e.g., travel to target markets, export fares etc.). As shown in

[3]In Tunisia there exists a specific legal format to set-up a consortia, called "Groupement d'Intérêt Economique", which all four groups chose as their legal format for cooperation.

Figure 2, in the first four months, consultants work with the consortia to develop export plans and consortia product catalogs. In the following eight months, the consultants and project staff work with the consortium and its members on two axes: 1) consultancy, coaching, and workshops for entrepreneurship and export, 2) administrative and logistic support for consortium development, e.g. related to recruitment of a consortium coordinator (first consortium specific job), policy for recruitment of new members (cannot come from the control group) and internal organization of consortium in work committees. Moreover, each consortium receives financial support to conduct joint promotional export activities, such as organizing a trip to trade faires abroad etc.

3.2 Sampling and Randomisation

Female entrepreneurs across Tunisia were invited to sign up for the export consortia program in a nationwide communication campaign. Several communication and marketing channels were used to attract companies, including an e-mailing campaign, face-to-face or hybrid promotion workshops in Tunis and Sfax, social media and conventional media, such as TV, radio, and press, and implementation partners' own communication channels as well as those of the Tunisian Federation of Female Entrepreneurs. Interested firms could register online via the Tunisian export promotion offices website.

These recruitment efforts led to 263 applications. Among the 263 applications, 181 fulfilled the eligibility criteria: having the intention to export within the next 12 months, having an exportable product (self-reported) that fitted into one sector with sufficient other firms interested to establish a consortium. Project managers called up companies that did not provide sufficient information and excluded firms without registration and in financial distress.

The final sample of eligible firms used for randomization consists of the 176 firms that responded to the baseline survey. We conduct firm-level stratified randomization using STATA 15. We stratify first by one of the four sectors, agro-food, handicraft and cosmetics, professional business and digital services. Within sectors, we rank firms and form quadruplets of firms with similar export sales given export is the primary outcome. In addition, we put outlier firms with extremely high sales values into separate strata. As a result, we randomize 87 eligible companies to the treatment group and 89 companies to the control group (see Figure 2).

Based on gender coding of the Tunisian national registry of industrial firms, we estimated that the total population of female-owned or managed companies with 6 or more employees was only 1000 in the whole country. Note that the sample corresponds approximately to 18 percent of the total population of female-owned firms in Tunisia, excluding micro-enterprises.

4 Data

4.1 Data collection and processing

The primary data source is firm surveys. We conduct a baseline, midline, and endline survey. The midline survey takes place after the first period of the treatment ("consortia creation") has been completed. The endline survey takes place at the end of the second treatment period ("consortia export promotion"). Surveys are conducted in cooperation with a Tunisian survey firm. Respondents can reply online or on the phone. Contact information stems from registration, when we collected several contact details (several telephone numbers and email addresses of two firm representatives). Firms are called up to 12 times or more until they are declared as non-respondents. Surveys are conducted in the local language (Tunisian Arabic) and French. We train enumerators in cooperation with the survey institute for several days, including simulations, pilots, role plays etc. We conduct daily high-frequency checks, random spot checks, and automatized logical checks of consistency, and listen to recordings of at least 20 percent of the sample.

Moreover, we collect at least three other types of data. The implementation partner collects administrative data, such as attendance in workshops for consortia creation or reports of individual coaching. We collect administrative data on firms' export transactions from the customs office based on a unique tax identifier. Lastly, we conduct focus groups and interviews with selected consortia participants.

4.2 Sample characteristics

Among the 176 companies, 25.6 percent (45) operate in the agro-food sector, 30.7 percent (54) are handicraft producers, 23.3 percent (41) provide professional services and 20.5 percent (36) digital services. The median company has five employees and 80 percent have 10 or fewer employees, implying that only 35 firms have more than 10 employees. Overall, the companies tend to be quite "young", as half of the companies in the sample did not exist for more than four years. Interestingly, a majority, or 60.6 percent of the female CEOs, have one family member who has a company. Half of the firms in the sample regularly discuss business ideas or challenges with seven or fewer other people and 90 percent with 25 or fewer. In contrast to our expectation based on the existing literature, women discuss business ideas or challenges only with three family members but 10 outsiders on average. Hence, many entrepreneurs in the sample seem to have a relatively small network, while some also dispose of very extended networks, mostly made up of business contacts outside rather than within families.

The business performance of the sample firms is quite heterogeneous. The median company has total sales of around 74,000 Tunisian dinars (roughly equivalent to 24,666€). The heterogeneity in revenue in the sample is high, even after removing one strong outlier: the standard deviation in total sales is 1,077,435

Tunisian dinars and the baseline mean (434,854 Tunisian dinars) is approximately 5 times as large as the median [4] At baseline, companies have relatively poor formal management practices as defined in previous research (Bloom et al., 2013, 2020). The average company has around 7.4, and the median company has 8 points on a 25-point management practices indicator based on five questions, each providing up to 5 points. The companies perform worst on average in examining the firm's financial performance and monitoring employees' performance via indicators. Finally, 108 firms, or 61.4 percent of the sample, did not yet export. Among the 68 firms that realized revenue from export, firms exported to 2.5 (2) other countries on average (median), and the top 25 percent exported to three and up to 15 countries.

Overall randomization led to two balanced groups. Table 3 provides a balance table summarizing the mean and standard deviation in the treatment and control group, and p-values for t-tests of statistically significant differences between the two groups as well as F-Tests for joint independence between treatment status and all major outcome variables. While there are no statistically significant differences, modest sample size and high heterogeneity between the firms, lead to insignificant but notable differences, in particular, in variables with a high variance, such as sales. As a result, we cannot reject the null hypothesis of joint insignificance of all outcome variables from treatment status for the untransformed variables. However, Table 4 in the appendix shows that after correction for outliers via winsorization and inverse hyperbolic sine transformation of accounting variables, treatment status is entirely independent of all outcome variables. It is also noteworthy that the insignificant but notable differences are sporadic in the sense that they do not consistently favor either the treatment or the control group. In contrast, the differences are driven by significant outliers in either group that affect the average.

In total, the 87 firms in the treatment group came from four sectors, two of which are manufacturing sectors (agro-food (23) and handicrafts (26)), and the two others are service sectors (professional services (20) and digital services (18)). The 14 firms that decided to become part of the agro-food consortium are either agricultural producers (e.g., olive oil, orange, almonds), produce processed food products (e.g., digestive crackers or jam/spread), or offer agro-food services (e.g., plant nursery, catering, import-export/trade logistics specifically for food products). The companies employ on average seven and up to 25 employees in various locations across Tunisia. 12 among the 14 firms (85 percent) have not exported in 2020, the lowest share of exporters among all three consortia. The 17 firms in the handicraft consortium offer a range of lifestyle products, such as cosmetics (e.g., various natural oils, beauty, and baby care products), leather and textile products (e.g., leather belts, bags, or bracelets), and furniture (e.g., tables, tableware, and decorations). Seven among the 17 firms in the handicraft consortium have already exported. Almost all export to France, one to Libya, and one to Algeria. Regarding their characteristics, the firms in the handicraft

[4] Without removing the outlier, the baseline mean is 625,031 and the standard deviation is 2,668,589 Tunisian Dinar.

consortium are very similar to those in the agro-food consortium.

The other two consortia consist of firms that offer services. The smaller one comprises business services firms that provide consulting, training, coaching, audits, management certification, or environmental feasibility studies. The larger one consists of 14 firms offering IT services, including website development and digital marketing, online education, data analytics, cloud storage, 3D printing, and digital strategy consulting. The firms from both service consortia are more concentrated in the metropolitan area of Tunis than the firms in the other two consortia. 60 percent, 10 out of the 14 companies in the digital services consortia, are in the larger Tunis area. The same applies to 40 percent of the firms in the professional service consortia. The rest of the firms are in different regions of Tunisia. Half of the digital service consortium firms have already exported, the highest value among all consortia, and 40 percent in the professional service consortium. The firms' main export destinations are European countries, such as Germany, France, Italy or Belgium. A few firms also export to neighboring countries, such as Libya, and francophone African countries, such as Senegal or Benin.

4.3 Main outcome variables

We consider four different outcome dimensions. The first outcome dimension is female entrepreneurs' networks. We think about the consortia as a new network of business contacts, independent of family and existing contacts. To quantify and qualify female entrepreneurs' networks, we use the following indicators based on survey questions. First, we ask female entrepreneurs about the number of female and male entrepreneurs that they meet regularly to discuss business challenges. This provides us with a proxy for the size of female entrepreneurs' business networks. We also differentiate between contacts related and unrelated to family and between male and female contacts. Secondly, we ask respondents to rate the quality of their network on a scale from 1 to 10.

The second outcome dimension concerns female entrepreneurs' entrepreneurial confidence or empowerment. Exporting requires traveling abroad, negotiating and attracting international customers, and investing in export readiness while uncertain about potential returns. Moreover, existing literature has shown that an entrepreneurial mindset is important for entrepreneurial achievement (Frese and Gielnik, 2014; Campos et al., 2017). We measure entrepreneurs' confidence through three conceptual proxies of "confidence" used in the existing literature (Alibhai et al., 2019), namely "locus of control", "self-efficacy", and "sense of initiative". For each dimension, we ask female entrepreneurs to affirm on a 5-point Likert scale a series of statements. Each statement asks about a different dimension of firm and export management. We normalize each question to a z-score and build the average of the z-scores for each dimension as well as across all three dimensions as in Kling et al. (2007).

Moreover, we conduct a list experiment as an additional source of evidence of female entrepreneurs' confidence. One crucial part of (female) empowerment is independent decision-making, which is defined as independent decision-making

in intra-household bargaining power toward male partners. This paper is interested in female entrepreneurs' independence in business decision-making. Existing research has shown that male role models, e.g., fathers or other close family members, such as uncles or partners, are important predictors for women's choice to engage in entrepreneurship (Alibhai et al., 2019). In our sample, 60 percent of the female entrepreneurs have one family members that is an entrepreneur. In the list experiment, we ask female entrepreneurs how many of the following statements apply to them, emphasizing that we do not know which of the statements apply to them. All female entrepreneurs see the same three initial, non-sensitive options.[5] A randomly selected half of the respondents also see the sensitive option: "I consult my husband (or another man in the family) before making strategic decisions for the company". At midline, we re-randomized half of the treatment and half of the control firms to receive the question with and without the sensitive option. In response to early feedback that consulting one's partner before taking important decisions can also be a sign of a functioning relationship rather than a lack of independence, we adapted the statement at midline to emphasize obligation : "I feel obliged to consult my husband (or another man in the family before making decisions for the company."

The third outcome dimension is knowledge transfer, measured as the adoption of management and export-related practices as well firm innovation. We measure management practices based on selected key outcomes indicators that were found to correlate strongly with the indicator used in Bloom et al. (2013, 2020). We measure export readiness based on selected questions used in export readiness assessments of export promotion agencies as well as applied in Kim et al. (2018); Breinlich et al. (2017). Finally, we measure innovation based on the Oslo Manual definition as significant improvements in product, process, marketing, or organizational innovation (Cai and Szeidl, 2018).

The fourth outcome dimension consists of firms' business and export performance. We measure business performance through the standard self-reported survey indicators, such as annual sales in Tunisia, total annual sales, the annual number of employees (including differentiation between young and female workers), and annual profits. We measure export performance based on self-reported or administrative firms' export sales, the number of export countries, and the income level of the main exporting destination. In the following section (section 5), we describe how we analyze this data.

5 Methodological framework

To analyze the effect of the consortia intervention on each outcome dimension, we conduct the following regression analysis.

[5] The three answer options are "I always encourage and support my team", "I dreamed of being a successful woman when I was a child" and "I try to do my best job"

5.1 Estimation of Treatment Effects

We estimate average treatment effects based on intention-to-treat in an ANCOVA model as defined in McKenzie (2012):

$$Y_{i,t} = \beta_0 + \beta_1 Treatment_i + \Pi Y_{i,t=0} + \gamma M_{i,t=0} + X_s\theta + \varepsilon_i \quad (1)$$

where $Y_{i,t}$ is the given outcome variable measured post-treatment, $Y_{t=0}$ is its baseline value, and $M_{i,t=0}$ a dummy variable indicating whether or not the baseline value is missing, $Treatment_i$ is an indicator for being assigned to treatment, X_s is a vector of randomization strata dummy variables, and ε_i is the error term. Since we randomized at the individual level, Huber-White standard errors will be used. β_1 provides the intent-to-treat or average treatment effect, which is the effect of being selected to receive the intervention among the experimental sample of 176 participants. Given the small size of the firms in the sample and the focus on export, it is unlikely that the stable unit treatment value assumption (SUTVA) is violated, e.g., by treated firms stealing business from firms in the control group.

Based on the invited firms' decision to participate in the consortium and their participation in the project's consortium creation activities, we instrument treatment with the former take-up variables to estimate the treatment effect on the treated:

$$Y_{i,t=1} = \beta_0 + \beta_1 C_i + \Pi Y_{i,t=0} + \gamma M_{i,t=0} + X_s\theta + \varepsilon_i \quad (2)$$

where C_i is an indicator for firm i's treatment status as instrumented by firms' participation in project activities or their decision to become part of the consortium. β_1 measures the impact for firms having decided to become a member of an export consortium.

To estimate how the quality of firms' peers affects their performance, we estimate the following equation:

$$D(Y_i) = \beta_0 + \beta_1 \overline{dpeer}_{-i,t=0} + \Pi Y_{i,t=0} + \gamma M_{i,t=0} + X_s\theta + \varepsilon_i \quad (3)$$

where we limit the sample to all the companies that decided to join a consortium, $D(Y_i)$ is the difference in the outcome variable between midline and baseline, $Y_{t=0}$ is its baseline value, and $M_{i,t=0}$ a dummy variable indicating whether or not the baseline value is missing, $\beta_1 \overline{dpeer}_{-i,t=0}$ is the distance of each firm to the average of all other or the top three firms in the same consortium in terms of either baseline entrepreneurial confidence, management practices, export performance, business size measured as a z-score of total sales and employees, or winsorized and inverse hyperbolic sine transformed profits, X_s is a vector of randomization strata dummy variables, and ε_i is the error term. Since we randomized at the individual level, Huber-White standard errors will be used. We only consider this regression for outcomes where we detect a treatment effect.

5.2 Dependent variable transformations

We handle outliers and dispersion due to the significant heterogeneity among SMEs as follows. Firstly, we back-checked all values equal to and above (beyond) the 95th (5th) percentile via audio recordings and phone calls as extreme values may reflect measurement error or outliers. Secondly, we winsorize skewed continuous outcomes at the 99th percentile (to reduce the impact of the very largest outcomes), and, in case of negative variables (e.g., profits), also at the bottom one percentile. Thirdly, we transform numerical variables that exhibit significant dispersion, such as annual (export) sales or profits, using the inverse hyperbolic sine or a percentile transformation. Given recent work has shed light on significant issues with the inverse hyperbolic sine transformation in the presence of zeros in outcomes, such as sales (Aihounton and Henningsen, 2021; Bellemare and Wichman, 2020; Brauw and Herskowitz, 2021; Chen and Roth, 2022; Delius and Sterck, 2020; Mullahy and Norton, 2022), we conduct the following analysis. Firstly, we examine the severity of zeros within each numerical variable. If a variable has less than 5 percent of zeros, we will not rescale it (k = 1) before ihs-transforming it. In case the variable has more than 5 percent of zero values, we will separately run a regression on a binary outcome, e.g., a dummy of having exported based on annual export sales, and a regression on a winsorized, optimally scaled ihs-transformed outcome variable. We select an optimal scaling factor k for each outcome based on R-squared (Aihounton and Henningsen, 2021); where "optimal" also includes the consideration that, if we have already examined the extensive margin effect in the binary regression, we select the optimal scaling factor that puts more weight on the intensive margin or in other words reduces the gap between zero and positive values while maximizing R-squared. If we are not interested in binary variables, such as in the case of total sales (we are not interested in total sales > 0), we select k based on the R-square only. Finally, transform highly dispersed negative outcomes that also have negative values, such as profit, also to their percentile distribution Delius and Sterck (2020).

5.3 Multiple hypotheses testing

We account for multiple hypotheses testing in two ways. Firstly, we develop indices based on z-scores as in Kling et al. (2007) to test only one hypothesis instead of several. Secondly, we report also Romano-Wolf adjusted p-values that control for the family-wise error rate (Clarke et al., 2020).

5.4 Attrition and Take-up

We use several approaches to attempt to mitigate attrition. Firstly, we collect detailed contact information at baseline and contact participants 12 times or more using different telephone numbers at different times of the day. Secondly, we offer firms to respond online or via phone, which we find more effective given CEOs' little time. Despite the above, there is considerable attrition. At

baseline, 91 percent of the registered and eligible firms respond. This number drops to 74 percent during the midline.

Take-up is a second concern. If too few female entrepreneurs join the consortium, the intervention could fail. We targeted a group size of 8-15 companies per consortium but invited 50-100 percent more companies depending on the number of eligible applicants per sector. In addition, project staff contacted firms before randomization to verify whether firms would be a good fit. We measure take-up as firms' participation in the program activities (stage 1), and their decision to participate legally (stage 1), and engage in and continue to be a member of the consortium (stage 2).

6 Results

We expected the consortia would affect female entrepreneurs through at least four different channels: being exposed to other women entrepreneurs should enlarge their network (section 6.1) and strengthen their entrepreneurial confidence (section 6.2), provide opportunities for learning about better management and export practices and inspire innovation (section 6.3), and ultimately create new business opportunities between members and outside clients, in particular abroad, once female entrepreneurs would invest in and share the costs of exporting (sections 6.4 and 6.5).

6.1 Business Networks

At midline, treated female entrepreneurs have enlarged their networks considerably. Female entrepreneurs in the treatment meet regularly two (ITT), and those who actually decided to participate in the consortium , even three additional female entrepreneurs (TOT) to discuss business on average (Table 6). Accordingly, consortia participation has doubled the number of female CEOs that treated firms regularly meet relative to the control group. The effects are statistically significant at the 10 percent level for the treatment group and at the 5 percent level, considering firms' actual decision to participate in the consortium. The network expansion is entirely driven by the number of other female rather than male CEOs that female entrepreneurs regularly meet to discuss business. The consortia intervention has tilted the balance in treated female entrepreneurs' networks from being slightly majority-male to majority-female. While entrepreneurs in the control group meet 3.7 other female and 4.8 other male entrepreneurs on average, entrepreneurs in the treatment group now meet 5.7 other female and 5.05 other male entrepreneurs regularly to discuss business. Importantly, the consortia treatment has established first, new contacts between female entrepreneurs. For example, 22 female entrepreneurs, or about one-quarter of the firms in the control group, meet zero other female entrepreneurs regularly to discuss business. The same applies to less than half or 9 firms in the treatment group, out of which 8 did not take up the consortia intervention. Figure 4 illustrates how the intervention has shifted the number

of regular contacts with other female entrepreneurs along the whole distribution of network size.

What is more, we were interested in (female) entrepreneurs' view of cooperation between entrepreneurs (Dimitriadis and Koning, 2019). Tunisian stakeholders and local (female) business consultants were skeptical about entrepreneurs' willingness to cooperate with other entrepreneurs due to cultural and business reasons. Female entrepreneurs invited to the consortia choose on average 0.3 more positive words than the control group when asked about their view of the cooperation with other entrepreneurs, a 12.5 percent increase relative to a control group mean of 2.3 words (Table 6 and Figures 8 and 9). The increase is driven by firms that took up the intervention and, in particular, an increased view of other CEOs as *partners* (81 percent in the treatment group vs. 62 percent in the control group). Treated female entrepreneurs also choose fewer negative words when asked about the interaction between CEOs, although the effect is not statistically significant.

Consortium participants do not rate the quality of their network significantly higher than the control group (Table 6). The positive point estimate, which suggests 0.6 points increase on a scale from zero to 10, is statistically insignificant with a large confidence interval ranging from -.64 to 1.14 points. Figure 7 shows that more firms in the treatment group now give their network the highest possible score of ten, but many firms in the control group also score the quality of their networks' advice very high. At the endline, we plan to improve our measurements for network quality, implementing more objective measures, e.g., by asking whether a network provides specific functions and advantages to the company.

In sum, the consortia have enabled female entrepreneurs to meet twice as many other female entrepreneurs as they would have met otherwise. We interpret these contact additions as a direct consequence from the events held during phase 1, which were primarily female-only events. More indirect network effects, and hence potentially also an extension of the male business network, may be expected during the second phase which involves market missions. Furthermore, these contacts have changed their view about cooperating with other entrepreneurs towards an augmented sense of partnership.

6.2 Entrepreneurial empowerment

The treatment significantly increased female entrepreneurs' confidence and sense of empowerment. Treated female entrepreneurs feel 0.228 standard deviations more empowered than female entrepreneurs in the control group (Table 7). The effect is even 0.07 standard deviations more pronounced for women who decided to legally take part in the consortium. Recall that we measure entrepreneurial confidence and empowerment as a series of self-affirmations about one's capacity to access finance, attract foreign clients, motivate employees, present the company abroad, and master administrative and logistic processes for export on a 5-point Likert scale. In terms of magnitude, a 0.228 increase is about equivalent to moving from the median to the 75 percentile in the control group distribution

of the entrepreneurial empowerment and confidence index. We further disaggregate the entrepreneurial confidence and empowerment index in efficacy (ability) and locus of control. The overall effect seems driven by improvements in efficacy (ability) rather than control over external business environments, given the magnitude and statistical significance are lower for the latter measure.

Moreover, we measured another dimension of empowerment, namely women's independence in entrepreneurial decision-making. Given the substantial risk of misreporting due to the privacy of the issue, we used a list experiment. At baseline and before randomization, about 12 percent of the female entrepreneurs indicated consulting a male family member before taking strategic business decisions (Figure 10a). At midline, we re-randomized half the firms in the treatment and control group to being exposed to the sensitive option and strengthened its formulation to "feel obliged to consult a male family member". [6] While firms in the treatment group exposed to the sensitive option selected even fewer options on average than unexposed firms in the treatment group, the same percentage of women in the control group (13 percent) as at baseline confirm feeling obliged to consult their husbands or other male family members before taking strategic business decisions (Figure 10b). The list experiment regression results reported in Table 8 in the appendix show that this difference is not statistically significant, which is, at least to a certain extent, due to the small sample size given we had to divide the sample into 2x2 groups, with each group having only around 30-40 firms.

Overall, we interpret the results as strong evidence that the first stage of consortia construction has strengthened female entrepreneurs' self-confidence and sense of empowerment.

6.3 Knowledge transfer: management practices, innovation, and export readiness

A key outcome and mechanism is knowledge transfer. Knowledge transfer could occur between members of the same consortia (Cai and Szeidl, 2018) or between consultants/experts and consortia participants (Iacovone et al., 2021).

The midline results suggest that knowledge transfer occurred mostly from consultants to female entrepreneurs in terms of general management practices for business administration and export knowledge. Treated firms have about a fifth of a standard deviation better score in a management practice index (Table 9). This is equivalent to moving from the 30th to the 50th or the 50th to the 70th percentiles along the distribution management practices in the control group at midline. However, the result is only statistically significant at the 10 percent level. Treated entrepreneurs learned about new management practices from consultants (55 percent in the treatment group vs. 32 percent in the control group) and through events (71 percent in the treatment vs. 51 percent in the control group, Figure 12). Z-score management practices index captures

[6] We strengthened the formulation in response to early feedback that consulting with a partner before taking strategic decisions can be considered an essential part of a partnership rather than a sign of a lack of independence.

small, accumulated changes across several dimensions of management practices. Measured in total points, management practices increased by 0.1 points or 5 percent relative to the control group's mean of 1.8 points on a scale from 0-4. The difference between the treatment and the control group does not seem to be driven by one singular management dimension. Instead, treatment group firms provide more promotion incentives for employees and exhibit a higher awareness among employees about company goals, as well as evaluate slightly more key performance indicators more frequently (Figure 11).

In contrast to previous studies that reported firms increased their (product) innovation when being invited to regular group network sessions with other firms (Cai and Szeidl, 2018), we find no statistically significant effect on firms' likelihood to innovate or their total number of innovations. Moreover, we find that treated firms are significantly less likely to make significant changes to the organization of their workplace. One reason maybe that consortia participants had very high baseline innovation levels. Another reason may be that, as mentioned above, the first treatment period focused more on participation-consultant vs. participant-participant interaction, which may have prevented innovation thanks to learning from other participants.

6.4 Export readiness and export performance

While the treatment does not (yet) seem to have significantly improved firms' export performance, there are a few indications that consortia participants are in the process to develop their export. On the positive side, consortia members are more likely to have invested in export activities (Table 9), to know Tunisia's major trade agreements (Figure 13 with and be in contact with potential clients in other sub-Saharan African countries (Table 12).[7]. In the following, we look at each point in more detail.

Firstly, consortia members are 19 percentage points more likely to report positive export investments. However, the effect is only marginally significant at the 10 percent level and the p-values are not robust to Romano-Wolf adjustment for multiple hypothesis testing. At the same, a large part of the confidence intervals, which range from -2 to 37 percentage points, suggest an effect size larger than zero. Secondly, Figure 13 shows 87 percent of the firms in the treatment group vs. 42 percent in the control group know about the Common Market for Eastern and Southern Africa (COMESA) trade agreement. Similarly, 66 percent in the treatment vs. 24 percent in the control group know about the African Continental Free Trade Area (ACFTA). Given consultants introduced both free trade agreements during the workshops, there is a direct causal link between the strong differences. The low level of knowledge about these major trade agreements and the opportunities that they bring to firms may suggest a lack of public communication or a lack of interest in exporting to other African countries. Finally, consortia members are 18 percentage points more likely to

[7] The overarching objective of the political implementation partners was to promote exports to sub-Saharan African countries

have contact with a potential client in other sub-Saharan African countries. While the confidence interval is largely positive (- 2 to 40 percentage points), the effect is only marginally statistically significant at the 10 percent level and the significance does not survive controlling for multiple hypothesis testing. All consortia members could meet firms from Eastern Africa at the COMESA Tunisia Business Women days and representatives of each consortia participated in an official trade mission of the Tunisian export promotion agency to Kenya.

Despite these positive indications that consortia members started to develop their export performance, treated firms have not yet significantly improved in their export readiness, as measured by a series of good export practices, and their export performance, measured in export sales (Table 12). At the time, the result is in line with the logic of the intervention, which focused thus far on creating the consortia, while the second, export promotion period, is ongoing and only started after the midline.

6.5 Business and export performance

The ultimate aim of an export consortium is to increase its members' economic performance, in particular their sales, exports, and profit. At midline, we cannot expect direct effects, e.g., through common promotional or market exploration activities as the consortium has just been formally created. However, a consortium is equally a network, and as documented in the literature (Cai and Szeidl, 2018), new networks may help firms find new business partners or learn about cheaper suppliers.

Treated firms, in particular those that decided to become consortium members, have increased their profit (Table 11). Column (2) documents that treated firms have seen their profit increase by 2.7 ihs-units, significant at the 10 percent level, and consortia members have increased profits by 3.46 ihs-units, significant at the 5 percent level. However, we interpret these results with a grain of salt. While this is the result for our preferred specification (in line with the pre-analysis plan) and the ihs-transformation is widely applied (Bellemare and Wichman, 2020), several recent papers have pointed out that ihs-(or log-)transformed variables can be sensitive to the unit of outcome variable if the variable has many zeros (Chen and Roth, 2022; Aihounton and Henningsen, 2021; Mullahy and Norton, 2022). Hence, we also estimate the effect on a percentile transformed profit variable as suggested by Delius and Sterck (2020) and examine the sensitivity of the significance and effect size (Table 13). Three among the potential six profit transformations show a significant TOT-estimate, one at the five and two at the ten percent level. Moreover, the confidence intervals of all TOT-estimates are to a large extent above zero. For example, the percentile transformed profit estimate, which we could consider the most reliable alternative ranges between a minus two percentile decrease and a 18 percentile increase. Similarly, the confidence interval for reporting positive profits ranges between minus three percentage points and up to a 33 percentage points increase. Accordingly, we would interpret the results as suggestive, but not yet conclusive evidence, that consortia membership has increased firms' prof-

its. Qualitative interviews with the consultants responsible for implementing the consortia and project documents suggest the former encouraged women to search for business opportunities within and across consortia and several examples, such as joint product offerings or joint ventures, document that members have started exploring common business synergies.

6.6 Take-up

Two-thirds of the invited female entrepreneurs legally joined a consortium. Joining the consortium is highly correlated (0.8) with showing up to the treatment workshops. 18 among the 32 dropouts, 56 percent, only showed up to two or fewer of the workshops dedicated to establishing the consortia. Only four of the dropouts had participated in at least seven of the 10 workshops. Across the four consortia, the share of firms that joined varied. While 78 percent in the digital technology consortia joined, the highest share, only 50 percent of the invited firms in the professional business services consortia joined. 61 percent and 66 percent of the invited among the agro-food and handicraft firms joined. What drives firms' decision to join? Table 15 shows that the following stylized facts apply to three among the four - the agro-food, the handicraft, and the business service consortium - while the fourth consortium, digital services, presents an opposite selection dynamic.

Consortia participation seems to be driven by more sociable female entrepreneurs with twice as many business contacts outside families who felt more negative about the prevalent interaction among CEOs in their environment. Joiners have almost twice as many, 11 vs. 6.5, business contacts outside their families with whom they met 50 percent more often in the past three months to discuss business. At the same time, joiners also felt ex-ante considerably more pessimistic about the interaction between CEOs as they selected 0.3 or 57 percent more negative words to describe it. Joiners were unambiguously motivated by "becoming part of a female business network to learn from other female CEOs".

These female entrepreneurs predominantly own and manage much younger and smaller firms with only half as many employees and a third of the domestic sales of those who did not join the consortium. Joiners manage or own firms created four years before program participation, while dropout firms existed already for eight years, four years more. Joiners count 6 employees, 4 employees less than drop-outs on average. In a similar realm, joiners generate roughly 113 thousand Dinar in domestic sales on average, which is less than a third of the 364 thousand Dinar that the dropouts generate on average. This is reflected in proportionally smaller average profits among joiners.

What is more, consortia participants are much less experienced and performing in terms of export than those that dropped out. Roughly a third of the joiners exported or invested in exporting in 2021, while about half of the drop-outs exported and seventy percent invested in export. This is reflected in the below (above) average export readiness scores among joiners (dropouts) and resulted in starkly different average export sales of 13 thousand Dinar among

joiners vs. 260 thousand among drop-outs. While true across the three consortia, this pattern is particularly pronounced for the agro-food consortia where the largest 20 percent of invited firms or all firms with more than 400.000 Tunisian Dinar in sales in Tunisia dropped out. The drop-outs were also much more performing in terms of export: 63 percent reported positive export sales (vs. 14 percent among the takers) and 88 percent positive export investments (vs. 29 percent among takers).

As mentioned above, the selection dynamic in the digital consortium defies and reverses the above pattern. The firms that opted to join the digital services consortium outperform the dropouts in all dimensions. Joiners are more likely to report positive investment in exports (71 vs. 0 percent), have 300 thousand Dinar more domestic and 210 thousand Dinar higher export sales on average, resulting in roughly three times as much generated profit and almost double the number of employees (11 vs. 6). What is more, the joiners are considerably older (9 vs. 5 years), have larger networks, report more innovations and better management practices.

In conclusion, we observe two opposite selection dynamics. In three consortia, younger and smaller firms decide to cooperate in setting up a joint consortium to market their products jointly, and larger, more established firms quit. In the fourth group, smaller and less export-oriented companies dropped out and larger, more export-experienced companies joined. These selection dynamics suggest that companies prefer to cooperate with peers of the same caliber and performance. For example, the standard variation in a z-score size index[8] is nine times smaller among the joiners than those invited to join the agro-food, handicraft, or professional business service consortia. In the following, we examine how the quality of those firms that took up the intervention defined their treatment effect.

6.7 Peer-effects

The quality of the peers in a consortium may condition its overall impact and utility for each individual firm. We anticipated female entrepreneurs from established, larger, and more productive firms may lift up younger and smaller firms. To test this hypothesis, we constructed the distance of each firm to the average value of the group and to the top three firms in its consortia at baseline for several key characteristics of firm performance. We expected a positive relationship: the more distance, the more empowering and insightful contact with better-performing peers should be.

However, the selection dynamics described in the previous section (section 6.6), suggest that female entrepreneurs selected to cooperate with similar peers. In line with this dynamic, we find that the change in entrepreneurial confidence and management practices between midline and baseline is negatively correlated with firms' baseline distance to the group or the top three average entrepreneurial confidence or management practices (Table 17 and Table 16).

[8]The size index is an average of the z-scores of employees, total sales, and profits

In other words, among the more similar firms that decided to join the consortium, firms with lower entrepreneurial confidence or management practices have experienced smaller increases in either variable at the midline. As a result, it seems that the positive effects of the intervention in terms of increasing entrepreneurial confidence and improving management practices materialize more the better a firm performed in either dimension at baseline relative to its similar peers. Finally, note that we do not find any effects of peers' on the change in profit (Table 18).

7 Conclusion

We conduct a randomized controlled trial to study the effect of exogenously providing female entrepreneurs with a new professional network composed of other female entrepreneurs with similar products and the same interest in exporting. At midline, the intervention has proven successful in expanding (female) entrepreneurs' networks and confidence, and to a lesser extent in diffusing better management practices and creating profitable business synergies between some of the consortia members. It remains to be seen whether the legal connection enables firms to substantially grow their businesses and even export.

How does the study compare to other studies? On the positive side, this study stands out as we find positive effects on female entrepreneurs' entrepreneurial confidence and empowerment in contrast to other entrepreneurship interventions that focused on business and mindset training for individual female entrepreneurs (McKenzie and Puerto, 2021; Alibhai et al., 2019) and networks of female entrepreneurs (Asiedu et al., 2023). Based on qualitative interviews and our observations during the consortia meetings, we suspect that the exclusive focus on female-only consortia, which created a strong sense of solidarity among female entrepreneurs, paired with personal coaching, a thorny local environment for female entrepreneurs, and the support of two respected implementing agencies have all positively contributed to these positive effects on entrepreneurial confidence and generated a sense of empowerment. In our context, it seems more relevant for their empowerment to enable women to exchange with peers and offer personal coaching, e.g. regarding access to finance, than to add a specific gender component, such as childcare services, to the treatment. In terms of profit, our results point toward the same (positive) direction as in Cai and Szeidl (2018) and Asiedu et al. (2023). On the downside, we find weak effects on peer-to-peer knowledge transfer and no effects on innovation (yet) in comparison to Cai and Szeidl (2018) and Asiedu et al. (2023). We identify three reasons why this might be the case. First, an analysis of the firm characteristics driving take-up suggests that those who took up the intervention are particularly young firms ($<$ five years old) that already had very high levels of innovation, probably best understood as making changes to their business rather than new to the world innovation, prior to the intervention. Second, more established, larger firms dropped out in three of the four consortia, which may have prevented smaller firms from learning from more experienced, larger firms. Thirdly, the

first period of the intervention focused more on consultant-firm than firm-firm interaction. Another interpretation may be that it would be more beneficial for innovation to mix firms from different sectors as in Asiedu et al. (2023) to avoid firms are competitors or sharing similar knowledge sets. Finally, an important insight for future programs and studies is that a certain homogeneity of peers seems required for assuring the firm's participation. In other words, firm managers seem to prefer to spend time with peers that have the same caliber in terms of business performance (sales, employees, and export).

Given the focus on small (as opposed to micro) female-managed firms, we could not opt for a research design with several treatment arms. Therefore, we cannot disentangle the causal effect and contribution of each component of the treatment bundle and whether removing one part of the bundle would make the package less or even ineffective. For future work, we consider it would be promising to experiment with an intervention that provides less knowledge and financial input from the implementing agency. If it is enough for governments to act as a coordinator, reducing contracting frictions and search costs, this relatively low-cost intervention compared to cost-intensive consulting (Bruhn et al., 2018; Bloom et al., 2013) would be an even more attractive option. Yet, removing these components of the intervention seems more advisable when targeting more mature, smaller, and middle-sized companies rather than female-owned firms. Finally, it seems promising to compare gender mixed vs. female-only consortia in future work. Gender-mixed consortia may enable crossovers into other sectors and access to potentially more valuable male entrepreneurs' networks but may compromise the effects on strengthening female entrepreneurs' confidence and empowerment.

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9 Appendices

9.1 Figures

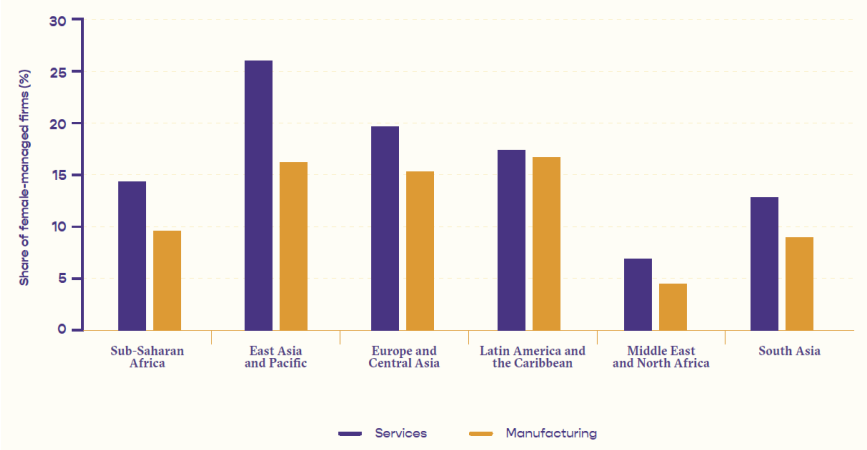


Figure 1: Female-managed firms, by region
World Bank (2019, p.123)

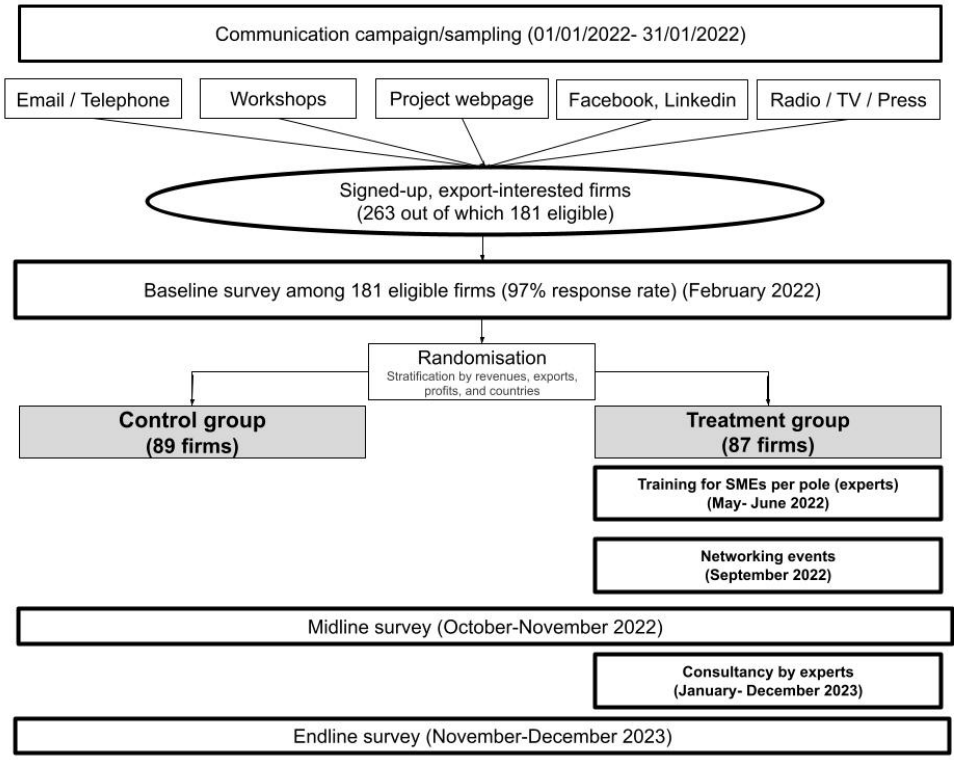


Figure 2: Study design flow chart and timeline

Questions	About
	Introduction
Q1-3	Essence of the enterprise
Q4-7	Knowledge exchange & innovation
Q8-12	Networking size / business contacts
Q13-19	Management practices
Q20	Marketing practices
Q21-27	Export management readiness /export outcomes
Q28-31	Accounting
Q32-38	Characteristics of the enterprise including the gender aspect
Q39-45	Expectations of the enterprise
Q46-47	Contact information

Figure 3: Baseline Questionnaire

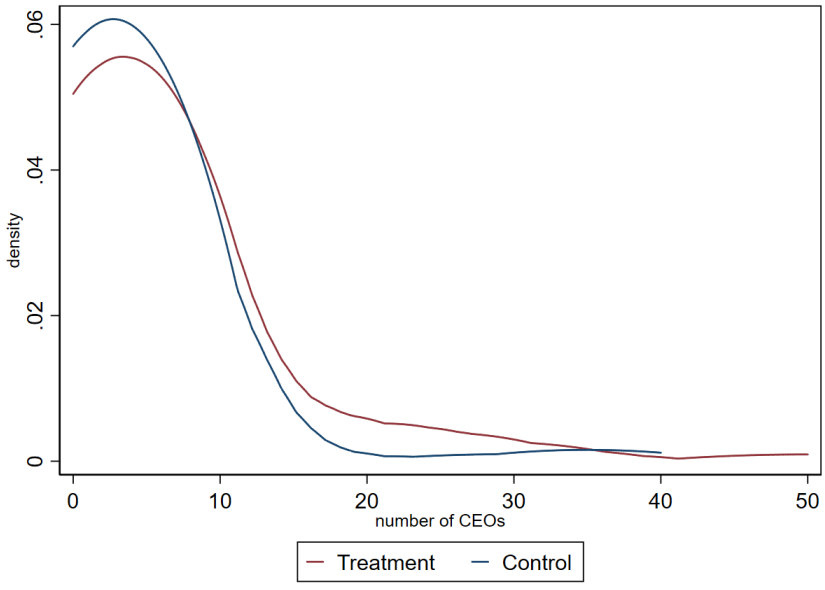


Figure 4: Number of female CEOs met regularly

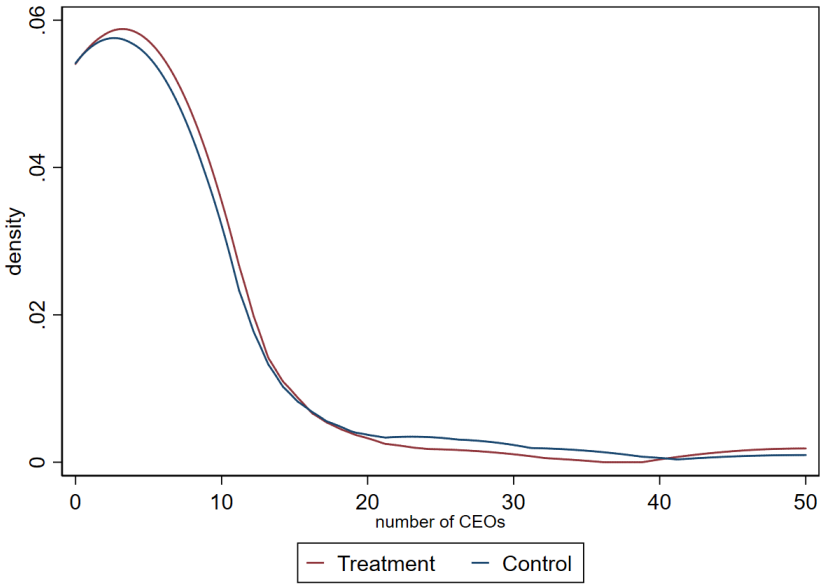


Figure 5: Number of male CEOs met regularly

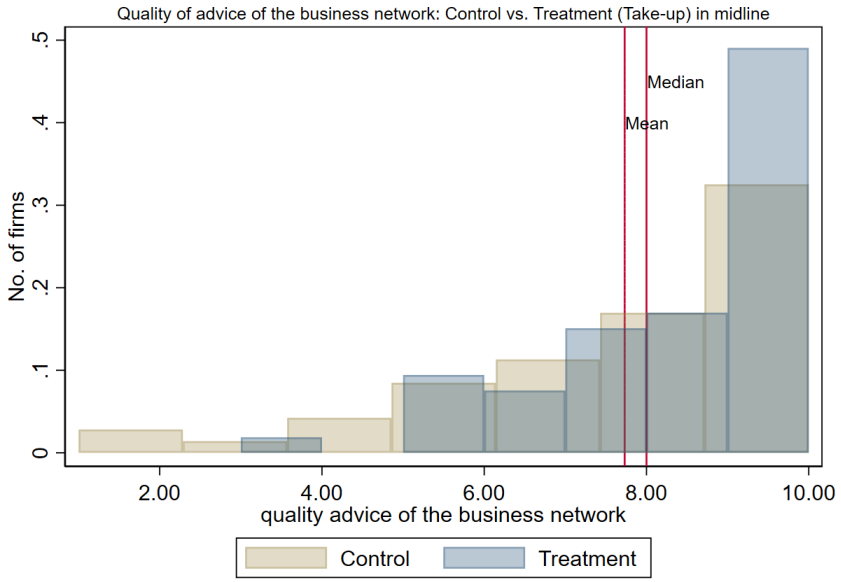


Figure 6: Self-rated quality of the entrepreneur's business network. Scale 0-10, higher values correspond to a better network.

10. **net_coop** Choose the 3 words that best describe how you think CEOs interact with each other in business.

3 POSSIBLE ANSWERS.

Win	1	Retreat	6
Communication	2	Partnership	7
Trust	3	Adversary	8
Beat	4	Connect	9
Power	5	Dominate	10

Figure 7: Survey question regarding female entrepreneurs perception of the interaction between CEOs in business.

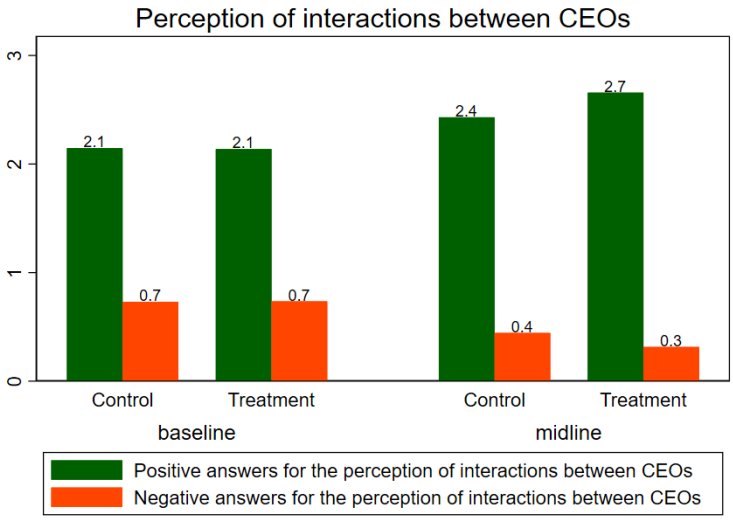


Figure 8: Perception of interactions

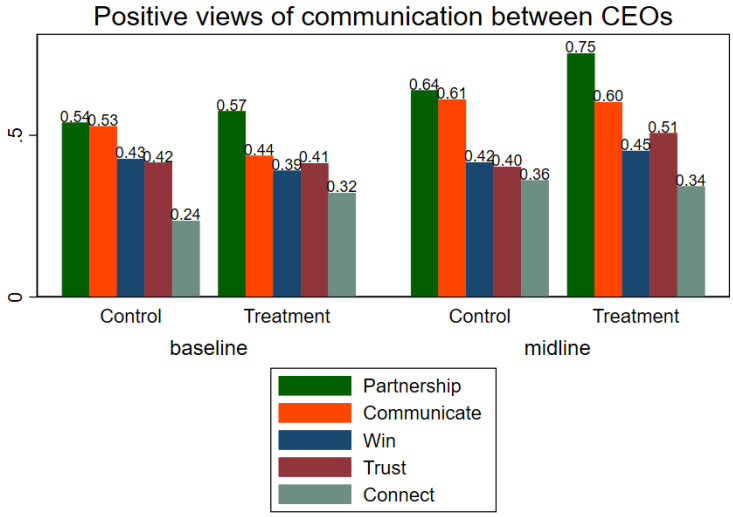
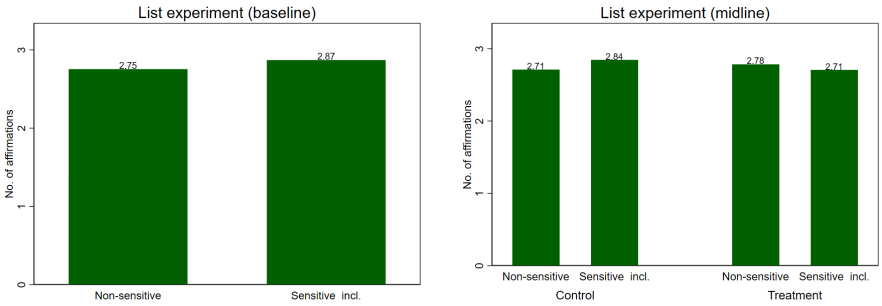


Figure 9: Most common word selected in positive interactions



(a) Baseline (b) Midline

Figure 10: List experiment

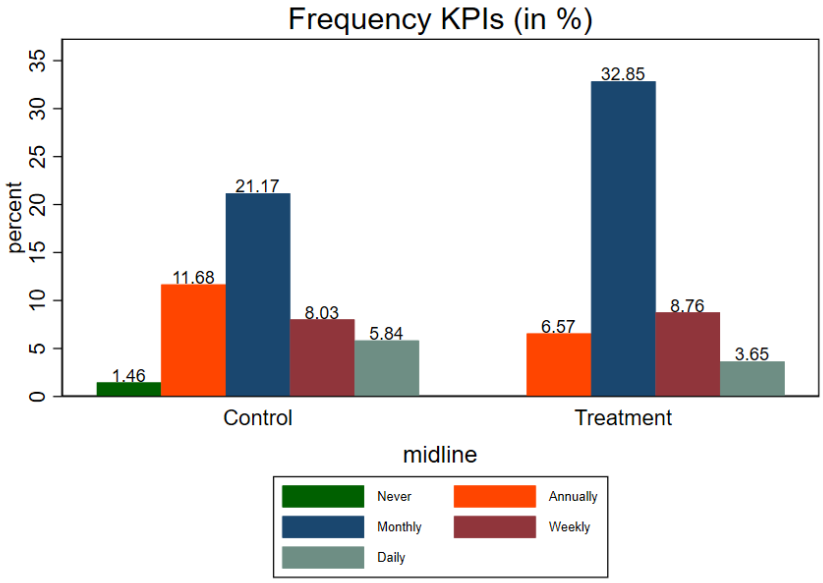


Figure 11: Frequency of key performance indicators evaluation

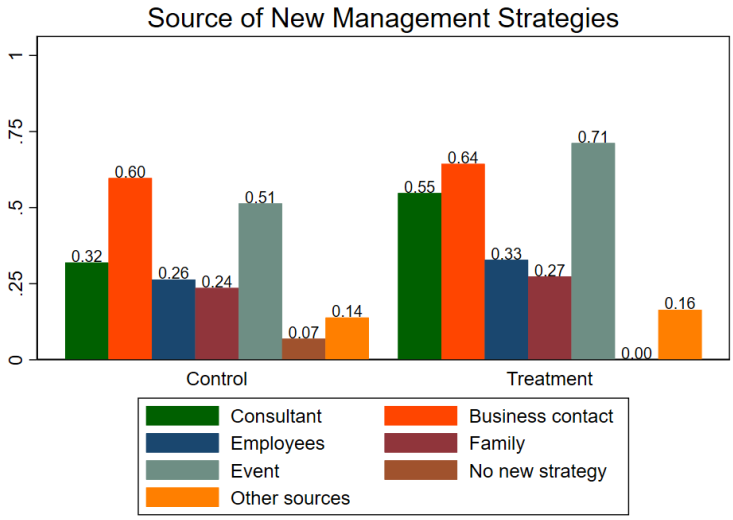


Figure 12: Sources of new management strategies

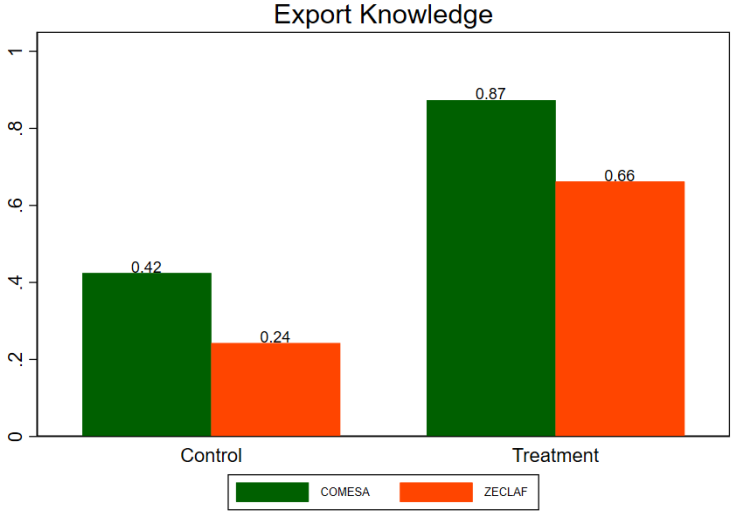


Figure 13: Knowledge about African Trade Agreements

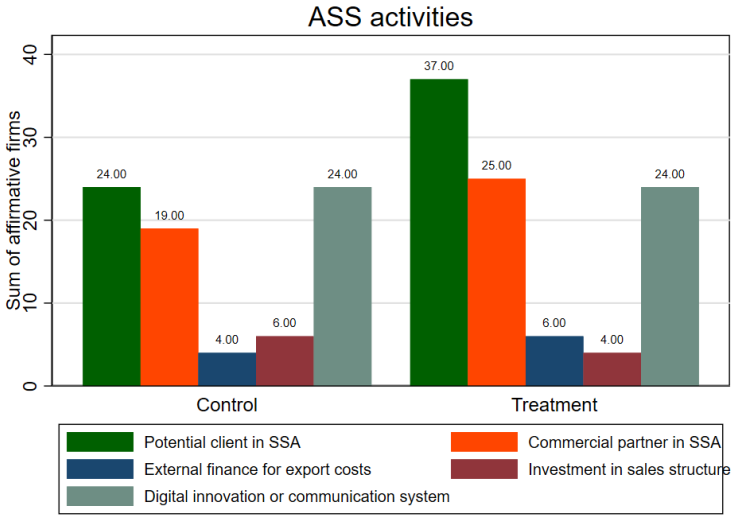


Figure 14: Actions done in Sub-Saharan African markets

9.2 Tables

Table 1: Focus groups: Relative importance of barriers to entrepreneurship

Company	Social norms and family commitments	Lack of funds and resources	Lack of business and export knowledge	Regulatory and administrative barriers	International barriers: travel, language, culture	Important Risks: high costs, uncertainty, competition
Company 1	4	6	3	3	4	6
Company 2	6	4	4	3	5	3
Company 3	3	5	5	5	1	3
Company 4	2	4	2	5	1	1
Company 5	3	7	2	2	2	5
Company 6	7	7	7	7	6	7
Company 7	3	1	1	1	2	1
Company 8	7	7	7	7	7	7
Company 9	4	7	7	5	4	7
Company 10	7	7	7	6	7	7
Company 11	1	7	5	7	5	7
Mean:	**4,27**	**5,64**	**4,55**	**4,64**	**4,00**	**4,91**

Table 2: Description of main outcome variables

Outcome dimension	**Indicators**	Source
Network	Network size Network advice quality Perception of interaction between CEOs	Firm survey
Entrepreneurial confidence	Female Empowerment Index Locus of control Efficacy Initiative List experiment	Firm survey
Knowledge transfer	Management Practices Innovation Export readiness	Firm survey
Business Performance	Sales (domestic, total) Profit Number of Employees	Firm survey
Export	Export sales Export countries Investment in export Perception of export costs	Firm survey & admin data

Table 3: Baseline balance: Untransformed variables

Variable	(1) Control Mean/SD	(2) Treatment Mean/SD	T-test P-value (1)-(2)
Network size	12.33	13.21	0.73
	(16.02)	(17.62)	
Network quality	7.11	7.31	0.62
	(2.61)	(2.68)	
Pos. view CEO interaction	2.15	2.14	0.94
	(0.78)	(0.73)	
Neg. view CEO interaction	0.73	0.74	0.95
	(0.64)	(0.60)	
Entrepreneurial empowerment	-0.01	-0.08	0.44
	(0.66)	(0.60)	
Effifacy	0.00	-0.10	0.36
	(0.76)	(0.72)	
Locus of control	-0.05	-0.03	0.85
	(0.73)	(0.72)	
Management practices	-0.00	0.05	0.53
	(0.48)	(0.51)	
Total innovations	1.69	1.68	0.97
	(1.40)	(1.38)	
Innovated	0.74	0.72	0.80
	(0.44)	(0.45)	
R&D expenditure	53,044.41	18,825.96	0.32
	(318,164.24)	(36,859.08)	
Age	7.13	6.66	0.73
	(9.85)	(8.31)	
Sales	391,879.33	624,609.70	0.54
	(856,501.52)	(3,419,255.86)	
Profit	29,258.93	17,594.97	0.66
	(106,668.96)	(219,209.12)	
Employees	7.94	14.68	0.21
	(10.44)	(48.49)	
Export readiness	-0.04	0.01	0.60
	(0.53)	(0.52)	
Export costs	5.74	5.54	0.62
	(2.60)	(2.82)	
investment in export activities	10,520.96	24,624.40	0.19
	(22,582.69)	(97,126.99)	
Export sales ¿ 0	0.37	0.40	0.67
	(0.49)	(0.49)	
Export sales	96,287.29	127,063.70	0.65
	(465,104.02)	(419,091.85)	
number of countries exported to in 2021	1.14	1.41	0.45
	(2.12)	(2.72)	
N	89	87	
F-test of joint significance (F-stat)			6.46***
F-test, number of observations			176

Notes: The value displayed for t-tests are p-values. The value displayed for F-tests are the F-statistics. Standard deviations are robust. All missing values in balance variables are treated as zero.***, **, and * indicate significance at the 1, 5, and 10 percent critical level.

Table 4: Baseline balance: transformed variables

Variable	(1) Control Mean/SD	(2) Treatment Mean/SD	T-test P-value (1)-(2)
Network size	12.00	12.76	0.73
	(14.23)	(15.23)	
Network quality	7.11	7.31	0.62
	(2.61)	(2.68)	
Pos. view CEO interaction	2.15	2.14	0.94
	(0.78)	(0.73)	
Neg. view CEO interaction	0.73	0.74	0.95
	(0.64)	(0.60)	
Entrepreneurial empowerment	-0.01	-0.08	0.44
	(0.66)	(0.60)	
Effifacy	0.00	-0.10	0.36
	(0.76)	(0.72)	
Locus of control	-0.05	-0.03	0.85
	(0.73)	(0.72)	
Management practices	-0.00	0.05	0.53
	(0.48)	(0.51)	
Total innovations	1.69	1.68	0.97
	(1.40)	(1.38)	
Innovated	0.74	0.72	0.80
	(0.44)	(0.45)	
R&D expenditure	21,985.02	18,087.04	0.54
	(47,898.69)	(36,663.11)	
Age	7.13	6.66	0.73
	(9.85)	(8.31)	
Domestic sales	1.02	1.04	0.92
	(1.22)	(1.18)	
Profit	29,258.93	17,594.97	0.66
	(106,668.96)	(219,209.12)	
Employees	7.94	14.68	0.21
	(10.44)	(48.49)	
Export readiness	-0.04	0.01	0.60
	(0.53)	(0.52)	
Export sales	0.27	0.40	0.29
	(0.74)	(0.91)	
number of countries exported to in 2021	1.14	1.34	0.53
	(2.11)	(2.25)	
Export investment	0.09	0.15	0.20
	(0.20)	(0.38)	
Export costs	5.74	5.54	0.62
	(2.60)	(2.82)	
Export sales ¿ 0	0.37	0.40	0.67
	(0.49)	(0.49)	
N	89	87	
F-test of joint significance (F-stat)			1.25
F-test, number of observations			176

Notes: The value displayed for t-tests are p-values. The value displayed for F-tests are the F-statistics. Standard deviations are robust. All missing values in balance variables are treated as zero.***, **, and * indicate significance at the 1, 5, and 10 percent critical level.

Table 5: Firm characteristics by economic activity

Variable	(1) agro-alimentaire Mean/SD	(2) artisanat & cosmétique Mean/SD	(3) service Mean/SD	(4) TIC Mean/SD	T-test P-value (1)-(2)	(1)-(3)	(1)-(4)	(2)-(3)	(2)-(4)	(3)-(4)
Gender index -Z Score	-0.05 (0.58)	0.02 (0.72)	-0.03 (0.61)	-0.17 (0.58)	0.63	0.91	0.36	0.72	0.18	0.32
Women's entrepreneurial efffacy - z score	-0.05 (0.74)	0.01 (0.74)	-0.07 (0.82)	-0.12 (0.68)	0.68	0.90	0.64	0.61	0.37	0.76
Women's locus of control - z score	-0.08 (0.68)	0.06 (0.82)	0.02 (0.63)	-0.22 (0.72)	0.34	0.46	0.38	0.78	0.08*	0.12
total sales in TND	525,790.65 (1,093,526.27)	204,894.61 (338,162.35)	320,982.90 (498,322.78)	798,336.58 (1,799,212.50)	0.06*	0.26	0.43	0.20	0.05*	0.13
profit in TND in bl = 2021, ml = 2022, el = 2023	40,839.53 (107,481.35)	18,230.54 (84,648.97)	52,462.24 (87,086.93)	30,916.15 (129,271.25)	0.26	0.58	0.71	0.06*	0.60	0.40
nombre d'employés de l'entreprise	14.82 (52.02)	7.22 (6.83)	5.83 (6.31)	11.22 (15.03)	0.34	0.26	0.66	0.31	0.14	0.05**
export sales in TND in bl = 2021, ml = 2022, el = 2023	161,649.55 (516,418.59)	26,537.04 (96,838.26)	58,352.37 (195,457.25)	241,280.11 (745,559.18)	0.09*	0.22	0.59	0.34	0.09*	0.16
export sales ¿ 0	0.39 (0.49)	0.31 (0.47)	0.41 (0.50)	0.47 (0.51)	0.47	0.79	0.45	0.32	0.14	0.62
costs of export activities	5.98 (2.61)	6.09 (2.74)	5.15 (2.89)	5.00 (2.37)	0.83	0.17	0.08*	0.11	0.05**	0.81
investment in export activities	32,710.23 (131,680.76)	7,960.37 (27,890.11)	7,867.07 (17,686.67)	19,294.72 (37,652.42)	0.22	0.22	0.52	0.98	0.13	0.10*
N	44	54	41	36						
F-test of joint significance (F-stat)					5.29***	5.70***	2.73***	4.32***	6.69***	1.93*
F-test, number of observations					98	85	80	95	90	77

Notes: The value displayed for t-tests are p-values. The value displayed for F-tests are the F-statistics. Standard deviations are robust. All missing values in balance variables are treated as zero.***, **, and * indicate significance at the 1, 5, and 10 percent critical level.

Table 6: Business Networks

	(1) Network size	(2) Female CEOs met	(3) Male CEOs met	(4) Network quality	(5) + view CEO exchange	(6) − view CEO exchange
Panel A: Intention-to-treat (ITT)						
Treatment	2.187	2.242*	0.106	0.188	0.239*	-0.168
	(2.295)	(1.197)	(1.435)	(0.397)	(0.136)	(0.128)
	0.342	0.063	0.941	0.637	0.082	0.192
	.568	.107	.874	.568	.05	.107
Panel B: Treatment Effect on the Treated (TOT)						
Consortium participant	2.924	2.994**	0.142	0.252	0.324**	-0.229
	(2.676)	(1.382)	(1.692)	(0.454)	(0.162)	(0.153)
	0.275	0.030	0.933	0.579	0.046	0.136
	.543	.082	.874	.543	.034	.082
Control group mean	8.46	3.67	4.80	7.76	2.43	0.44
Control group SD	12.35	6.23	8.27	2.26	0.84	0.67
Observations	141	141	141	123	145	145
Strata controls	Yes	Yes	Yes	Yes	Yes	Yes
Y0 controls	Yes	Yes	Yes	Yes	Yes	Yes

Notes: Each specification includes controls for randomization strata, baseline outcome, and a missing baseline dummy. The only exception are columns 2 and 3 for which we did not collect baseline data. The number of observations for network quality is only 123 as all other 18 firms reported zero contacts with other entrepreneurs. The total of female, male and all other CEOs met are winsorized at the 99th percentile. Coefficients display absolute values of the outcomes. Panel A reports ANCOVA estimates as defined in Mckenzie and Bruhn (2011). Panel B documents IV estimates, instrumenting take-up with treatment assignment. Clustered standard errors by firms in parentheses. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$ denote the significance level. P-values and adjusted p-values for multiple hypotheses testing using the Romano-Wolf correction procedure (Clarke et al., 2020) with 999 bootstrap replications are reported below the standard errors.

Table 7: Entrepreneurial empowerment

	(1) Entrepreneurial empowerment	(2) Effifacy	(3) Locus of control
Panel A: Intention-to-treat (ITT)			
Treatment	0.228**	0.224*	0.175
	(0.111)	(0.125)	(0.115)
	0.041	0.075	0.131
	.0212	.056	.056
Panel B: Treatment Effect on the Treated (TOT)			
Consortium participant	0.298**	0.292**	0.229*
	(0.127)	(0.143)	(0.131)
	0.019	0.042	0.081
	.017	.055	.056
Control group mean	0.01	0.00	-0.00
Control group SD	0.69	0.76	0.74
Observations	135	135	134
Strata controls	Yes	Yes	Yes
Y0 controls	Yes	Yes	Yes

Notes: Each specification includes controls for randomization strata, baseline outcome, and a missing baseline dummy. All outcomes are z-scores calculated following Kling et al. (2007). Coefficients display effects in standard deviation units of the outcome. Entrepreneurial empowerment combines all indicators used for locus of control and efficacy. Panel A reports ANCOVA estimates as defined in Mckenzie and Bruhn (2011). Panel B documents IV estimates, instrumenting take-up with treatment assignment. Clustered standard errors by firms in parentheses. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$ denote the significance level. P-values and adjusted p-values for multiple hypotheses testing using the Romano-Wolf correction procedure (Clarke et al., 2020) with 999 bootstrap replications are reported below the standard errors.

Table 8: List experiment: Independent entrepreneurial decision-making

	(1) Baseline	(2) Midline
Sensitive option=1	0.110	0.030
	(0.151)	(0.185)
	0.467	0.871
Treatment		0.021
		(0.152)
		0.891
Treatment × Sensitive option=1		-0.059
		(0.243)
		0.809
Observations	176	134
Strata controls	Yes	Yes
Y0 controls		Yes

Notes: Column (1) presents baseline results with strata controls. Column (2) presents an ANCOVA specification with strata controls. Clustered standard errors by firms in parentheses. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$ denote the significance level.

Table 9: Knowledge transfer: Management practices, Innovation, Export readiness

	(1) Management practices	(2) Total innovations	(3) Innovated	(4) Export readiness	(5) Export readiness SSA	(6) SSA client
Panel A: Intention-to-treat (ITT)						
Treatment	0.143	-0.109	-0.104	0.020	0.021	0.142
	(0.091)	(0.193)	(0.070)	(0.099)	(0.101)	(0.094)
	0.118	0.572	0.140	0.841	0.837	0.135
	.176	.607	.007	.959	.858	.176
	-0.04,0.32	-0.69,0.21	-0.29,-0.04	-0.18,0.22	-0.18,0.22	-0.04,0.33
Panel B: Treatment Effect on the Treated (TOT)						
Consortium participant	0.190*	-0.173	-0.166	0.026	0.027	0.186*
	(0.106)	(0.277)	(0.102)	(0.113)	(0.116)	(0.108)
	0.073	0.532	0.106	0.819	0.814	0.083
	.145	.559	.002	.959	.854	.176
	-0.02,0.40	-0.85,0.20	-0.44,-0.09	-0.20,0.25	-0.20,0.25	-0.02,0.40
Control group mean	0.01	1.27	0.60	0.06	0.00	0.39
Control group SD	0.60	1.35	0.49	0.69	0.69	0.49
Observations	139	176	176	136	131	131
Strata controls	Yes	Yes	Yes	Yes	Yes	Yes
Y0 controls	Yes	Yes	Yes	Yes	Yes	Yes

Notes: Each specification includes controls for randomization strata, baseline outcome, and a missing baseline dummy. All variables are winsorized at the 99th percentile and ihs-transformed. The units for ihs-transformation are chosen based on the highest R-square, ten thousand for all variables, as described in Aihounton and Henningsen (2020). Panel A reports ANCOVA estimates as defined in Mckenzie and Bruhn (2011). Panel B documents IV estimates, instrumenting take-up with treatment assignment. Clustered standard errors by firms in parentheses. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$ denote the significance level. P-values and adjusted p-values for multiple hypotheses testing using the Romano-Wolf correction procedure (Clarke et al., 2020) with 999 bootstrap replications are reported below the standard errors.

Table 10: Innovation

	(1) Product innovation	(2) Process innovation	(3) Organizational innovation	(4) Marketing innovation
Panel A: Intention-to-treat (ITT)				
Treatment	0.042	-0.051	-0.184**	-0.075
	(0.079)	(0.079)	(0.077)	(0.082)
	0.594	0.526	0.019	0.365
	.58	.58	.039	.58
Panel B: Treatment Effect on the Treated (TOT)				
Consortium participant	0.057	-0.069	-0.250***	-0.101
	(0.094)	(0.095)	(0.093)	(0.098)
	0.546	0.469	0.008	0.303
	.58	.58	.023	.556
Control group median				
Control group SD	0.45	0.48	0.50	0.50
Observations	142	142	142	142
Strata controls	Yes	Yes	Yes	Yes
Y0 controls	Yes	Yes	Yes	Yes

Notes: Each specification includes controls for randomization strata, baseline outcome, and a missing baseline dummy. All outcomes dummy variables, coded equal to 1 if the firm does a type of innovation and zero otherwise. Panel A reports ANCOVA estimates as defined in Mckenzie and Bruhn (2011). Panel B documents IV estimates, instrumenting take-up with treatment assignment. Clustered standard errors by firms in parentheses. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$ denote the significance level. P-values and adjusted p-values for multiple hypotheses testing using the Romano-Wolf correction procedure (Clarke et al., 2020) are reported below the standard errors.

Table 11: Business performance

	(1) Domestic sales	(2) Total sales	(3) Profit	(4) Profit	(5) Employees	(6) Female employees
Panel A: Intention-to-treat (ITT)						
Treatment	0.115	0.156	2.707*	0.061	-0.005	0.041*
	(0.127)	(0.129)	(1.619)	(0.049)	(0.015)	(0.021)
	0.367	0.231	0.097	0.215	0.740	0.060
Panel B: Treatment Effect on the Treated (TOT)						
Consortium participant	0.150	0.202	3.453**	0.077	-0.006	0.053**
	(0.142)	(0.144)	(1.724)	(0.051)	(0.017)	(0.025)
	0.291	0.161	0.045	0.134	0.702	0.034
Control group mean	1.29	1.36	4.86	0.49	0.08	0.05
Control group SD	1.52	1.56	9.47	0.30	0.12	0.09
Observations	118	120	103	103	132	132
Strata controls	Yes	Yes	Yes	Yes	Yes	Yes
Y0 controls	Yes	Yes	Yes	Yes	Yes	Yes

Notes: Each specification includes controls for randomization strata, baseline outcome, and a missing baseline dummy. All variables are winsorized at the 99th percentile and ihs-transformed. The units for ihs-transformation are chosen based on the highest R-square, thousands for employee variables and ten thousands for all other variables, as described in Aihounton and Henningsen (2020). The only exception is the percentile transformed profit variable in column (4) (Delius and Sterck, 2020). Panel A reports ANCOVA estimates as defined in Mckenzie and Bruhn (2011). Panel B documents IV estimates, instrumenting take-up with treatment assignment. Clustered standard errors by firms in parentheses. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$ denote the significance level. P-values and adjusted p-values for multiple hypotheses testing using the Romano-Wolf correction procedure (Clarke et al., 2020) with 999 bootstrap replications are reported below the standard errors.

Table 12: Export performance

	(1) Export investment > 0	(2) Export investment	(3) Export costs	(4) Export sales > 0	(5) Export sales
Panel A: Intention-to-treat (ITT)					
Treatment	0.135	-0.046	0.481	-0.063	-0.029
	(0.089)	(0.071)	(0.360)	(0.074)	(0.105)
	0.133	0.523	0.183	0.394	0.784
	.358	.84	.358	.832	.84
	-0.04,0.31	-0.19,0.10	-0.23,1.19	-0.21,0.08	-0.24,0.18
Panel B: Treatment Effect on the Treated (TOT)					
Consortium participant	0.175*	-0.058	0.629	-0.082	-0.037
	(0.100)	(0.079)	(0.425)	(0.081)	(0.115)
	0.081	0.461	0.139	0.316	0.747
	.308	.832	.353	.822	.84
	-0.02,0.37	-0.21,0.10	-0.20,1.46	-0.24,0.08	-0.26,0.19
Control group mean	0.59	0.27	6.25	0.38	0.44
Control group SD	0.50	0.51	2.44	0.49	0.93
Observations	129	129	135	119	119
Strata controls	Yes	Yes	Yes	Yes	Yes
Y0 controls	Yes	Yes	Yes	Yes	Yes

Notes: Each specification includes controls for randomization strata, baseline outcome, and a missing baseline dummy. All variables are winsorized at the 99th percentile and ihs-transformed. The units for ihs-transformation are chosen based on the highest R-square, ten thousand for all variables, as described in Aihounton and Henningsen (2020). Panel A reports ANCOVA estimates as defined in Mckenzie and Bruhn (2011). Panel B documents IV estimates, instrumenting take-up with treatment assignment. Clustered standard errors by firms in parentheses. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$ denote the significance level. P-values and adjusted p-values for multiple hypotheses testing using the Romano-Wolf correction procedure (Clarke et al., 2020) with 999 bootstrap replications are reported below the standard errors.

Table 13: Sensitivity of profit estimates to transformation choice

	(1) Profit, k = 1	(2) Profit, k = 2	(3) Profit, k = 3	(4) Profit, k = 4	(5) Profit, pct	(6) Profit > 0
Panel A: Intention-to-treat (ITT)						
Treatment	2.719*	0.905	0.430	0.130	0.061	0.120
	(1.619)	(0.595)	(0.304)	(0.115)	(0.049)	(0.089)
	0.096	0.131	0.160	0.258	0.215	0.181
	.304	.304	.304	.304	.404	.404
	-0.49,5.93	-0.28,2.09	-0.17,1.03	-0.10,0.36	-0.04,0.16	-0.06,0.30
Panel B: Treatment Effect on the Treated (TOT)						
Consortium participant	3.467**	1.150*	0.543*	0.163	0.077	0.152
	(1.724)	(0.635)	(0.324)	(0.121)	(0.051)	(0.093)
	0.044	0.070	0.093	0.176	0.134	0.101
	.276	.304	.291	.276	.404	.382
	0.09,6.85	-0.09,2.40	-0.09,1.18	-0.07,0.40	-0.02,0.18	-0.03,0.33
Control group mean	4.86	2.07	1.14	0.36	0.49	0.66
Control group SD	9.47	3.59	1.90	0.70	0.30	0.48
Observations	103	103	103	103	103	103
Strata controls	Yes	Yes	Yes	Yes	Yes	Yes
Y0 controls	Yes	Yes	Yes	Yes	Yes	Yes

Notes: Each specification includes controls for randomization strata, baseline outcome, and a missing baseline dummy. All variables are winsorized at the 99th percentile (apart from the positive profit dummy). K refers to the units of profits. K = 4 implies profit is measured in units of ten thousand (10^4), k = 3 implies profit is measured in units of thousand (10^4), and so forth. Panel A reports ANCOVA estimates as defined in Mckenzie and Bruhn (2011). Panel B documents IV estimates, instrumenting take-up with treatment assignment. Clustered standard errors by firms in parentheses. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$ denote the significance level. P-values and adjusted p-values for multiple hypotheses testing using the Romano-Wolf correction procedure (Clarke et al., 2020) with 999 bootstrap replications are reported below the standard errors. Confidence intervals are documented below the adjusted p-values.

Table 14: Heterogeneous effects: Entrepreneurial Confidence and Empowerment

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
	Small firms	Large firms	Small network	Large network	Small fam. network	Large fam. network	Rural	City	No children	Children
Treatment	0.196	0.487*	0.314*	-0.075	0.361**	-0.210	0.255	0.192	0.457	0.228**
	(0.134)	(0.265)	(0.160)	(0.133)	(0.172)	(0.186)	(0.258)	(0.131)	(0.345)	(0.111)
	0.147	0.079	0.054	0.578	0.039	0.264	0.328	0.146	0.190	0.041
Observations	112.00	23.00	74.00	61.00	77.00	58.00	51.00	84.00	56.00	135.00
Strata controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Y0 controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Notes: Each specification includes controls for randomization strata, baseline outcome, and a missing baseline dummy. All outcomes are z-scores calculated following Kling et al. (2007). Coefficients display effects in standard deviation units of the outcome. Entrepreneurial empowerment combines all indicators used for locus of control and efficacy. Panel A reports ANCOVA estimates as defined in Mckenzie and Bruhn (2011). Panel B documents IV estimates, instrumenting take-up with treatment assignment. Clustered standard errors by firms in parentheses. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$ denote the significance level. P-values and adjusted p-values for multiple hypotheses testing using the Romano-Wolf correction procedure (Clarke et al., 2020) are reported below the standard errors.

Table 15: Take-up and firm characteristics across consortia

	Agro-food, Handicraft, Business Service			Digital Services		
	(1)	(2)	T-test	(1)	(2)	T-test
	Drop-out	Participate	P-value	Drop-out	Participate	P-value
Variable	Mean/SD	Mean/SD	(1)-(2) Variable	Mean/SD	Mean/SD	(1)-(2)
Export sales > 0	0.52	0.29	0.07*	0.50	0.50	1.00
	(0.51)	(0.46)		(0.58)	(0.52)	
Export investment > 0	0.70	0.34	0.00***	0.00	0.71	0.00***
	(0.47)	(0.48)		(0.00)	(0.47)	
Export to SSA	0.23	0.20	0.77	0.16	0.36	0.22
	(0.42)	(0.40)		(0.18)	(0.50)	
Export readiness	0.18	-0.08	0.04**	-0.29	-0.00	0.19
	(0.52)	(0.52)		(0.35)	(0.49)	
Sales	364,790.80	113,417.88	0.05**	189,000.31	486,001.52	0.21
	(634,830.34)	(153,604.64)		(184,640.71)	(774,453.07)	
Export sales	258,004.16	12,982.20	0.04**	69,510.94	283,624.55	0.19
	(612,340.75)	(31,955.24)		(111,704.33)	(545,488.92)	
Profit	57,683.20	23,219.02	0.14	19,558.75	57,713.93	0.39
	(109,927.78)	(58,453.61)		(21,594.03)	(154,832.54)	
Profit > 0	0.78	0.80	0.79	0.50	0.43	0.81
	(0.42)	(0.40)		(0.58)	(0.51)	
Employees	10.19	5.88	0.11	5.75	10.93	0.13
	(13.39)	(4.76)		(3.10)	(10.73)	
Online presence	0.93	0.90	0.74	1.00	0.93	0.34
	(0.27)	(0.30)		(0.00)	(0.27)	
HQ in Tunis	0.56	0.46	0.46	0.75	0.64	0.69
	(0.51)	(0.50)		(0.50)	(0.50)	
Age	8.00	4.44	0.09*	5.00	9.36	0.21
	(10.48)	(3.83)		(3.16)	(10.97)	
Capital	51,397.41	29,170.88	0.41	33,750.00	54,785.71	0.56
	(135,722.38)	(41,315.34)		(57,575.31)	(86,478.26)	
Family business network	2.68	3.99	0.16	2.63	3.43	0.49
	(2.01)	(5.33)		(1.09)	(3.69)	
Outside family business network	6.57	11.03	0.14	11.13	15.79	0.42
	(5.94)	(17.59)		(5.57)	(18.29)	
Network quality	7.04	7.88	0.19	4.50	7.07	0.32
	(2.82)	(2.18)		(5.26)	(2.59)	
Meetings with other CEOs, past 3 months	6.45	9.42	0.31	10.28	9.36	0.83
	(6.67)	(16.65)		(7.40)	(9.21)	
Neg. view CEO interaction	0.56	0.88	0.03**	0.25	0.79	0.05*
	(0.58)	(0.64)		(0.50)	(0.43)	
R&D expenditure	13,596.91	19,102.85	0.51	13,651.25	24,774.29	0.26
	(17,859.45)	(48,583.84)		(10,791.61)	(29,442.94)	
Total innovations	1.37	1.88	0.15	0.75	2.07	0.03**
	(1.42)	(1.40)		(0.96)	(1.14)	
Innovated	0.63	0.78	0.19	0.50	0.86	0.23
	(0.49)	(0.42)		(0.58)	(0.36)	
Management practices	0.01	0.08	0.59	-0.34	0.11	0.13
	(0.52)	(0.52)		(0.56)	(0.46)	
Marketing practices	0.01	0.09	0.56	-0.17	0.16	0.42
	(0.57)	(0.51)		(0.84)	(0.33)	
Entrepreneurial empowerment	-0.06	-0.08	0.90	-0.31	-0.10	0.60
	(0.60)	(0.65)		(0.84)	(0.43)	
N	27	41		4	14	
F-test of joint significance (F-stat)			5.70***			
F-test, number of observations			68			

Notes: Sample limited to treatment group. Accounting variables are winsorized at the 99th percentile. One observation is not included given it is an extreme outlier. The values displayed for t-tests are p-values. The value displayed for F-tests are the F-statistics. Standard deviations in squared brackets and are robust. All missing values in balance variables are treated as zero. * significant at the 10% level. ** significant at the 5% level. *** significant at the 1% level.

Table 16: Effect of peer quality on management practices

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
distance to peer average management practices	-0.988***									
	(0.014)									
	0.000									
distance to top-3 average management practices		-0.993***								
		(0.007)								
		0.000								
distance to peer average entrepreneurial confidence			-0.205**							
			(0.093)							
			0.032							
distance to top-3 average entrepreneurial confidence				-0.215**						
				(0.097)						
				0.031						
distance to peer average export performance					-0.228					
					(0.195)					
					0.247					
distance to top-3 average export performance						-0.179				
						(0.209)				
						0.395				
distance to peer average business size							-0.281			
							(0.208)			
							0.182			
distance to top-3 average business size								-0.316		
								(0.220)		
								0.157		
distance to peer average profit									0.000**	
									(0.000)	
									0.011	
distance to top-3 average profit										0.000***
										(0.000)
										0.003
Take-up mean	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.16
Take-up SD	0.48	0.48	0.48	0.48	0.48	0.48	0.48	0.48	0.48	0.48
Observations	54	54	54	54	51	51	54	54	45	45
Strata controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Y0 controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

The dependent variable is the change in the management practices index between baseline and midline. Each specification includes controls for randomization strata, baseline outcome, and a missing baseline dummy. The sample is restricted to companies that joined the consortium. Take-up mean and take-up SD refer to the outcome variable mean and SD at midline. Clustered standard errors by firms in parentheses. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$ denote the significance level. P-values are reported below the standard errors.

Table 17: Effect of peer quality on entrepreneurial confidence

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
distance to peer average management practices	-0.508									
	(0.314)									
	0.111									
distance to top-3 average management practices		-0.547*								
		(0.317)								
		0.090								
distance to peer average entrepreneurial confidence			-1.011***							
			(0.006)							
			0.000							
distance to top-3 average entrepreneurial confidence				-1.002***						
				(0.003)						
				0.000						
distance to peer average export performance					0.239					
					(0.354)					
					0.504					
distance to top-3 average export performance						0.245				
						(0.375)				
						0.516				
distance to peer average business size							-0.422			
							(0.358)			
							0.244			
distance to top-3 average business size								-0.432		
								(0.369)		
								0.247		
distance to peer average profit									0.000	
									(0.000)	
									0.494	
distance to top-3 average profit										0.000
										(0.000)
										0.439
Take-up mean	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21
Take-up SD	0.63	0.63	0.63	0.63	0.63	0.63	0.63	0.63	0.63	0.63
Observations	54	54	54	54	51	51	54	54	45	45
Strata controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Y0 controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Notes: The dependent variable is the change in entrepreneurial confidence between baseline and midline. Each specification includes controls for randomization strata, baseline outcome, and a missing baseline dummy. The sample is restricted to companies that joined the consortium. Take-up mean and take-up SD refer to the outcome variable mean and SD at midline. Clustered standard errors by firms in parentheses. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$ denote the significance level. P-values are reported below the standard errors.

Table 18: Effect of peer quality on profit

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
distance to peer average management practices	4.695									
	(4.769)									
	0.330									
distance to top-3 average management practices		4.709								
		(5.165)								
		0.367								
distance to peer average entrepreneurial confidence			-2.253							
			(3.435)							
			0.515							
distance to top-3 average entrepreneurial confidence				-2.341						
				(3.478)						
				0.504						
distance to peer average export performance					-4.270					
					(5.294)					
					0.424					
distance to top-3 average export performance						-7.434				
						(8.179)				
						0.368				
distance to peer average business size							1.754			
							(5.128)			
							0.734			
distance to top-3 average business size								2.271		
								(5.480)		
								0.681		
distance to peer average profit									-0.000*	
									(0.000)	
									0.075	
distance to top-3 average profit										-0.000*
										(0.000)
										0.067
Take-up mean	-0.19	-0.19	-0.19	-0.19	-0.19	-0.19	-0.19	-0.19	-0.19	-0.19
Take-up SD	9.53	9.53	9.53	9.53	9.53	9.53	9.53	9.53	9.53	9.53
Observations	45	45	45	45	45	45	45	45	45	45
Strata controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Y0 controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Notes: The dependent variable is the change in inverse hyperbolice sine transformed profits between baseline and midline. Each specification includes controls for randomization strata, baseline outcome, and a missing baseline dummy. The sample is restricted to companies that joined the consortium. Take-up mean and take-up SD refer to the outcome variable mean and SD at midline. Clustered standard errors by firms in parentheses. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$ denote the significance level. P-values are reported below the standard errors.

9.3 Hypotheses

This study focuses on the following major outcomes: (i) export performance, (ii) business performance, and (iii) network size, composition, and quality. We are also interested in the following secondary outcomes: (i) knowledge transfer (between firms and from consultants to firms), including for example management and export practices and innovation, and (ii) entrepreneurial gender empowerment.

The following hypotheses are tested:

9.3.1 Primary Hypothesis

(PH1) Primary Hypothesis 1: Consortia promote export.

We use the following outcomes to test this hypothesis:

1. Extensive margin. 1: self-reported indirect (via an intermediary) or direct export (0 = no export). 2: administrative custom records (0 = no export transaction recorded in a given year). We will look at 1. and 2. separately and combined to maximize the available information, given, for example, service firms may export without an administrative custom record.

2. Direct/indirect export activities to an African country [9] : This is a binary variable that takes the value 1 if the company directly or indirectly export (part of) its products and services to an African country, and 0 otherwise. Note that one objective of the program is to specifically promote intra-African trade, which is why we are interested in this outcome.

3. Intensive margin: inverse hyperbolic sine transformed annual export sales. This variable will be winsorized before the IHS-transformation at the 95-99th percentile depending on the number of outliers, and will be reported in Tunisian dinars. It will be coded as zero for firms that have not invested anything in the export. Note that we will also consider a regression specification that includes only treatment and control firms with export sales ¿ 0 in at least one surveyround to reduce variation in export sales.

4. Number of annual export destination countries, coded as zero for firms that did not export, and winsorized at 99th percentile.

We aim to detect impact mechanisms, such as sharing of fixed costs of exporting in consortia and collective investment in export preparation activities, through the following variables:

[9] an indirect export is self reported

1. Annual investment in export preparation activities, measured in Tunisian Dinar, inverse hyperbolic sine transformed, and winsorized at the 95-99th percentile depending on the severity of outliers. Coded zero for firms that have not invested anything in export readiness.

2. Export costs per dollar of export sales: annual investment in export (readiness) activities (as outlined above) divided by annual export sales. Coded as zero for firms that have no export or export but have zero investment in export activities.

3. Export readiness index: average of standardized z-scores of the following outcomes: a) participate in international trade exhibitions/fairs, b) engage or work with an international trading company, c) designate an employee in charge of export-related activities, d) undertake an analysis of target export markets, e) undertake a trade mission/travel to one of the target markets, f) access the customs website, g) maintain or develop an export plan, h) Product is certified according to the quality standards in target markets. All variables are binary which takes the value 1 if the participant firm did the activity during the last 12 months and 0 otherwise.

4. Export to sub-Sahara Africa (SSA): index, average of standardized z-scores of the following outcomes: a) knowledge of COMESA and ZLECAF, b) expression of interest from a client in SSA, c) external finance for export (subsidy, credit, guarantee), d) investment in sales structures in SSA destination market. All variables are binary which takes the value 1 if the participant firm did the activity during the last 12 months and 0 otherwise.

5. Raw value of self-reported costs of export activities: scale from 1 to 10, with 1 meaning the estimate of the firm's perception of export costs is extremely low, and 10 means extremely high.

(PH2) Primary Hypothesis 2: Consortia generates business growth (sales, profits, employees).

This will be tested by measuring the treatment effects on the following outcome measures in the surveys:

1. Annual sales: winsorized at the 95-99th percentile depending on the number of outliers, IHS-transformed and reported in Tunisian dinars.

2. Annual profit: winsorized at the 95-99th percentile depending on the number of outliers, IHS-transformed and reported in Tunisian dinars.

3. Annual number of employees: winsorized at the 95-99th percentile depending on the number of outliers, IHS-transformed and reported in Tunisian dinars.

Note that we will also consider a regression specification that includes only treatment and control firms with sales ¿ 0 in at least one surveyround for all three business growth variables to reduce their variation.

(PH3) Primary Hypothesis 3: Consortia increases size, changes composition, and improves quality of business network and intensity of interaction.

1. Number of other female and male CEOs regularly met to exchange about business. Winsorized at the 95-99th percentile depending on the number of outliers. We also inquire about business contacts outside and inside family networks, and differential trust in doing business with other female vs. male CEOs internationally and domestically.
2. Quality advice of the business network: It is a scale of 1 to 10, with 1 meaning the advice and information from the personal network is not useful for the management and 10 means extremely useful.
3. Time spent with other directors during the last 12 months: Frequency of meetings measured in number of weeks, and 0 otherwise.
4. Perception of interaction between the enterprises (Dimitriadis and Koning, 2019): 3 words must be selected from a list of 10 words that best describe the perception of interactions between CEOs in the context of business. They are divided into 5 positive and 5 negative words, and they will be transformed into a continuous variable with a minimum value of 0 and a maximum value of 3 depending on the number of positive words. It is coded as the following:

Positive	Win (=1) Communicate (=2) Trust (=3) Partnership (=7) Connect (=9)
Negative	Eliminate/Block (=4) Power (=5) Hold back/Retreat (=6) Opponent (=8) Dominate (=10)

Note: at the endline, we may add a more objective measure from the psychology literature on the cooperativeness and trust of entrepreneurs, as well as conduct implicit association tests to examine whether the intervention has changed the unconscious priors about the role of men and women in business.

9.3.2 Secondary Hypothesis

(SH1) Secondary Hypothesis 1: Women entrepreneurs learn from peers about new business practices.

We test this hypothesis by measuring the treatment impacts on the following secondary outcomes (the variables are selected in line with (Cai and Szeidl, 2018)):

1. Innovation: we use a binary (0 = no innovation, 1 = any innovation) and a count measure (number of innovations, max. = 4) based on firms' of one of the following outcomes: a) product innovation, b) process innovation, c) organizational innovation, d) product commercialisation innovation. All variables are binary, which takes the value 1 if the participant firm did the activity during the last 12 months and 0 otherwise. We will explore the different sources of innovation through additional questions.

2. Annual spending on innovation research and development: This variable will be winsorized at the 95-99th percentile depending on the number of outliers, IHS-transformed, and reported in Tunisian dinars.

3. Management practices index - Z Score: it is the average of standardized z-scores of outcomes envisioned to provide a summary measure of management practices: a) performance indicators for employees b) regular meetings with employees for feedback c) frequency of measuring anomalies in production d) registration of sales and purchases e) knowing the profit per product/service f) frequency of examining financial performance. At midline, we changed the management practices questions based on new research to the following practices: a) sources of new management strategies b) who is aware of production indicators c) frequency of examining performance indicators d) number of performance indicators e) employees´promotion policy.

4. Marketing practices index - Z Score: it is the average of standardized z-scores of outcomes intended to deliver a summary measure of marketing practices: a) study the prices and/or products of one of competitors b) ask customers what other products they would like to be produced c) investigate why past customers have stopped buying from the company d) attract customers with a special offer e) advertising in any form. All variables are binary, which take value 1 if the participant firm did the activity during the last 12 months and 0 otherwise.

(SH2) Secondary Hypothesis 2: Being part of a female-only consortia increases female CEO entrepreneurial empowerment (self-efficacy, locus of control, sense of initiative and independent decision-making).

This will be measured by an index measure of female empowerment and list experiment:

1. Female empowerment - Z Score: it is the average of standardized z-scores of outcomes measuring the following binary variables:

- Belief in own ability: a) participant has the skills to access new sources of funding b) participant negotiates the affairs of the company well c) participant manages to convince employees and partners to agree with me.

- Sense of own initiative: a) participant actively confront business problems when they arise b) Participant take the initiative immediately, when others do not c) participant spot and seize opportunities quickly to achieve her professional goals. The set of answer options for this variable is not part of the midline survey.

- Sense of control over the business situation: a) participant is well able to determine the success of her business b) participant knows how to determine what is happening in the internal and external environment of the company c) participant inspires other women to be better entrepreneurs. In the midline survey, we replaced the last answer option with c) participant masters the administrative and logistical procedures around export.

2. List experiment: In order to measure self-confidence and independence in entrepreneurial decision-making, we randomly divided the sample of respondents into treatment and control groups and asked the following question to the control group:

   How many of the following statements apply to you? Please note that we cannot recognize which statements you choose.

   - I always support and encourage my team.
   - I dreamed of becoming a successful woman when I was a child.
   - I try to do my best in my job.

   For the treatment group, we asked an identical question, except that a sensitive item concerning self-confidence was appended to the list:

   - I always support and encourage my team.
   - I dreamed of becoming a successful woman when I was a child.
   - I try to do my best in my job.
   - Baseline: I consult my husband (or another man in my family) before making strategic decisions for the company.
   - Midline: I feel obliged to consult my husband (or another man in my family) before making strategic decisions for the company.
   - Endline: I feel obliged to consult my husband (or another man in my family) before making strategic decisions for the company.

Note that at midline and endline we re-randomize within treatment and control group into a list experiment treatment group (sees sensitive option) and a list experiment control group (does not see sensitive option).

The baseline questionnaire can be found here:
https://docs.google.com/document/d/1xqAweVIfkZvH-sRq0-1DzJ1n_zTovqXM/edit?usp=drive_link&ouid=118421303433036502342&rtpof=true&sd=true

The midline questionnaire can be found here:
https://docs.google.com/document/d/1MdzXARVQMqbmOegQ-DfqG16Enuc1v35Y/edit?usp=drive_link&ouid=118421303433036502342&rtpof=true&sd=true

9.4 Treatment details

9.4.1 Consortia-level Workshops

Table 19: Summary workshop 1

Workshop 1	**Presentation Topics**	**Summary of activities**
Women entrepreneurs conquering Africa	Program´s mission presentation	-Explain the mission of the ´Consortia' program - Gender aspect of the program (role of gender equality in development,GII)
	Female presence in Tunisian firms	-Women entrepreneurship in Tunisia (statistics, obstacles, programs to promote it) - SMEs exports managed by Tunisian women (access to funding, statistics, difficulties) - Women representation in professional networks
	Sub-Saharan Africa market	- SSA market (member countries, GDP, official languages) - Information about each target country of the program: Cameroon, Ivory Coast, DR Congo, Kenya, Nigeria - Interests in exporting (incentives and advantages)
	Female-led firms´ participation in export	- Socio-economic situation of women entrepreneurs - Information about RAIDA Program - Export startegy and guidlines for direct and indirect export
	Opting for women's consortium: an empowerment solution	-The role of gender equality in women entrepreneurs´ empowerment - Information on gender inequality in Tunisia and around the world
	Free trade agreements	-The trade agreements between Tunisia and the export target region -Information on programs and activities of COMESA and AfCFTA in Tunisia - Free trade agreements list of countries partnered in bilateral agreements with Tunisia - Information on COMESA and AfCFTA
Duration	2 days	
Date	May 2022	

Table 20: Summary workshop 2

Workshop 2	**Presentation Topics**	**Summary of activities**
Creation of women's consortium	Interpersonal communication	-The importance of a better communication - Information on the types, filters, channels, and process of communication - Perceptions and information modeling - Practical exercise on how to actively listen and give feedback
	Woman- Woman Cooperation: Essential mentoring elements	- Information on the concept of mentorship - Advantages and disadvantages of mentorships, as well as tips for mentor and mentee - Examples of successful mentoring cases and woman-to-woman mentoring
	Securing exports to SSA for Tunisian women entrepreneurs	- Means of payment to choose when exporting to SSA - Management of problems that may arrive using one mean of payment over another - What type of contract should a Tunisian women entrepreneur get to safeguard her financial interests - Means of transport and delivery for export to SSA
Duration	2 days	
Date	May-June 2022	

Table 21: Summary workshop 3

Workshop 3	**Presentation Topics**	**Summary of activities**
Women Consortia	The different types of consortia 1	-Information on types of consortia: definitions of joint ventures, co-contracting, formal and informal groups - Advantages and disadvantages of each consortia type - Reminder of consortia types followed by a practical exercise for each type - Practical exercise to assist women entrepreneurs in choosing their consortium
	The different types of consortia 2	
	Assistance in choosing the consortium	
Duration	2 days	
Date	June 2022	

9.4.2 Individual Coaching

Table 22: Examples of individual coaching sessions

Consortium	Session	Example of subject	Category
Agro-food	1	Financing of a new campaign	Access to funding
Agro-food	2	Fund raising	Access to funding
Agro-food	1	Tax reporting coaching for herself and her accountant.	Accounting & Financial Management
Agro-food	1	Specificities of the SSA market.	Business Development
Agro-food	2	Specificities of the SSA market - Important terms to negotiate in an export operation to the SSA market	Business Development
Agro-food	3	How to set up a consulting office	Business Development
Agro-food	1	How to benefit from the STARTUP label	Government programs & tenders
Agro-food	1	Conflict management at work	Human relations/ resources
Agro-food	2	Tax reporting coaching.	Legal and administrative aspects
Agro-food	1	How to attract and convince customers	Marketing
Agro-food	2	How to negotiate in the African market - Which sales techniques that increase sales.	Marketing
Agro-food	1	Define the product line	Product/ Service Development
Agro-food	1	How to launch a business.	Product/ Service Development
Agro-food	3	Choice of the implantation region.	Product/ Service Development
Agro-food	2	How to launch a business.	Product/ Service Development
Agro-food	2	How to draw up a business plan considering its development forecasts.	Product/ Service Development
Agro-food	1	Communicate better in public and make a successful presentation	Self-Development
Agro-food	2	Public speaking	Self-Development
Handicrafts & Cosmetics	1	Fund raising	Access to funding
Handicrafts & Cosmetics	1	The price structure (calculation of direct charges, allocation of indirect charges for this product)	Accounting & Financial Management
Handicrafts & Cosmetics	2	Price calculation formula	Accounting & Financial Management
Handicrafts & Cosmetics	5	Review cost calculation	Accounting & Financial Management
Handicrafts & Cosmetics	1	How to diversify into business	Business Development
Handicrafts & Cosmetics	1	Specificities of the SSA market.	Business Development
Handicrafts & Cosmetics	2	Lack of a clear strategy for digital communication	Business Development
Handicrafts & Cosmetics	3	Company structure and organization chart	Business Development
Handicrafts & Cosmetics	2	How to benefit from the STARTUP label	Government programs & tenders
Handicrafts & Cosmetics	2	Recruitment of production management assistants	Human relations/ resources
Handicrafts & Cosmetics	1	Lack of a clear strategy for digital communication	Marketing
Handicrafts & Cosmetics	1	Set a communication strategy - Recruit a social media manager	Marketing
Handicrafts & Cosmetics	1	Lack of segmentation and targeting -Campaign on social networks	Marketing
Handicrafts & Cosmetics	2	Customer targeting - Sales action plan	Marketing
Handicrafts & Cosmetics	3	Absence of marketing -Product visibility on the market	Marketing
Handicrafts & Cosmetics	1	Develop a 'Business Model Canvas'.	Product/ Service Development
Handicrafts & Cosmetics	2	Explain the business plan to set the business strategy.	Product/ Service Development
Handicrafts & Cosmetics	4	How to diversify into business	Product/ Service Development
Handicrafts & Cosmetics	3	Defining its mission, vision and axes of orientation	Product/ Service Development
Handicrafts & Cosmetics	3	Stress management	Self-Development
Services	1	Lack of working capital	Accounting & Financial Management
Services	2	Lack of financial resources management.	Accounting & Financial Management
Services	1	B2B export management	Business Development
Services	2	Defining the company's strategy	Product/ Service Development
Services	1	Outsourcing greatly reduces the profit margin	Production
ICT	1	Absence of e-commerce	Business Development
ICT	1	How to use digital marketing	Business Development
ICT	1	How to answer a call for tenders	Government programs & tenders
ICT	1	Coordination between managers is not smooth	Production
ICT	1	Regaining her self-confidence	Self-Development
ICT	1	Time management	Self-Development

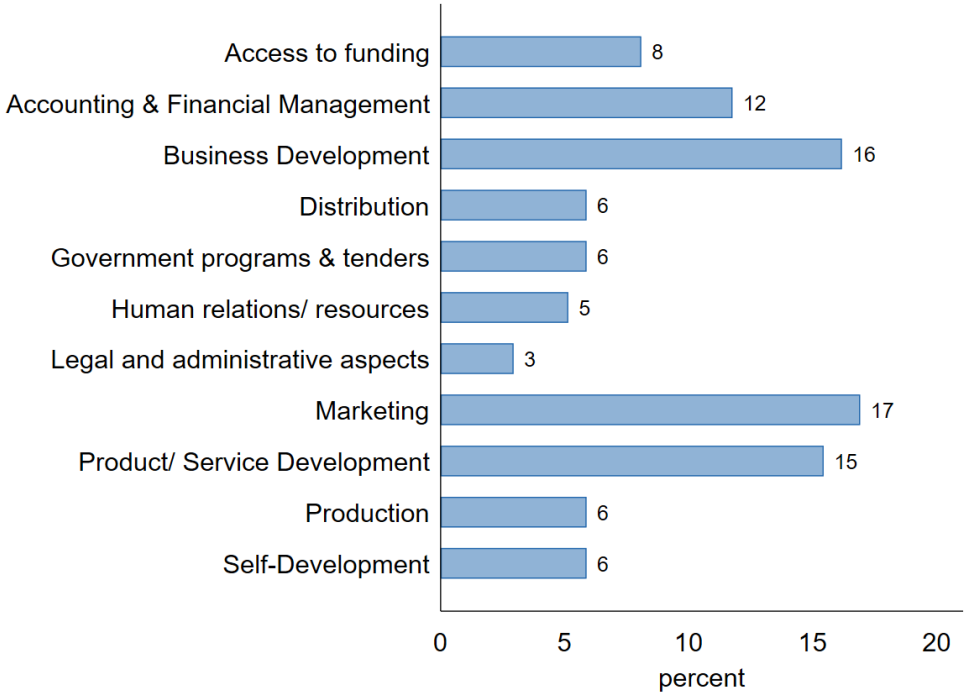


Figure 15: Distribution of the different categories in the individual coaching sessions

9.4.3 Budget & intensity of the different activities

Table 23: Cost for the first phase

	Activity	Budget spent (€)	Hours worked (h/d)	Hours worked (duration)
Phase I: Forming Consortiums	1) Webinar launch	6,500€	33	6 months
	2) 3 First meetings	33,000 € accommodation fees & 30,000 € for consultants' mobilization	155	45 days (PEMA)
	3) Slack exchange and individual coaching	30,000€	150	30 days (PEMA)
	4) 3 Intermediate meetings	33,000 € accommodation fees & 31,000 € for consultants mobilization	155	90 hours/day (PEMA)
	5) Operationalization meeting & decision of the executive office	8,000€	32	45 days (PEMA)
Total		171,500€		