

Executive Summary

The Middle East and North Africa (MENA) is the region with the lowest rates of female-owned business, as only 10% of all firms are owned by women. Increasing and promoting female entrepreneurship is therefore very important and has a high potential to broaden labour force participation and diversify the economic landscape of MENA countries. Policymakers need to better understand the barriers to female entrepreneurship as well as the existing landscape of female-owned businesses to craft effective support programs and policies. However, there is still a scarcity of research on female entrepreneurship in developing countries (Jayachandran, 2020).

This project aims to address this issue by assessing the effectiveness of an export promotion program targeted at female-owned enterprises in Tunisia who have the objective to export to other African markets. Between April 2022 and December 2023, 87 female-owned firms from four sectors (information and communication technologies, general services, agriculture, and handicrafts/cosmetics) are receiving technical assistance to form export consortia, which are voluntary business alliances to promote the products of its members abroad. The economic motivation to form such consortia is to share the high fixed costs involved in export development over multiple companies, thereby reducing the trade barriers for small and medium-sized businesses (SMEs). In addition to cost sharing, consortia may foster knowledge exchange and broaden the women's business networks.

A research team from the Technical University of Berlin and the Mediterranean School of Business, supported through the SGB Evidence Fund, is evaluating the effectiveness of this intervention through a randomized controlled trial (RCT). For this purpose, a total sample of 176 eligible firms was randomly allocated into a treatment group (forming part of the four consortia) and a comparison group, as the latter allows to estimate a counterfactual of what would have happened to these firms in the absence of the intervention.

The project is currently in the middle of its implementation phase with Phase I, which has the ultimate objective to legally form the 4 consortia, concluding by the end of November 2022. The companies have received a series of trainings since April 2022 in which they learned about the different ways to organize as a consortium as well as about key steps in export preparation. During the second phase, which starts in January 2023, firms will receive technical assistance to prepare export plans for their target markets and undertake joint activities to prepare market entry. A baseline survey was conducted in March 2022, a mid-line survey will be conducted at the beginning of 2023, and the endline survey in 2024, at least 6 months after the conclusion of the activities.

This report presents the motivation for the study and early insights from the baseline survey which offer an understanding of the competencies and confidence levels of women entrepreneurs seeking to expand their sales through the support of export consortia.

Introduction

Female entrepreneurship is an important untapped source of economic growth and innovation in all parts of the world, with less than 25% of global entrepreneurs being women (Figure 1). Women in the MENA region have the lowest rates of female entrepreneurship, with only around 10% of all firms being managed by women and even less among exporting firms. Previous studies have shown that women across the MENA region are confronted with and limited by similar gendered cultural environments that negatively impact their abilities

to build and grow their own business (Hattab, 2012). In Tunisia, only 19% of formal businesses are headed by women and very few of them are in the exporting chain; in addition, female presence in corporate boards does not exceed 5.3% (Ben Mohamed et. al, 2022).

As part of a large export promotion program, implemented the German Development Agency GIZ and the Tunisian export promotion agency CEPEX, this research project aims to address the above-mentioned aspects by evaluating the effectiveness of a specific support program targeted at female entrepreneurs who are interested in exporting their products to Sub-Saharan Africa. Eighty-seven female business owners are receiving a 21-month support in establishing four export consortia, which are voluntary alliances of firms to promote the products of its members abroad and facilitate the export of these products through joint actions (UNIDO,2003). This project is designed as a randomized controlled trial with an equally sized control group to be able to measure the causal impact of the program on exports and other outcomes of interest (for details see Section 2).

The main motivation for the formation of export consortia is that export development usually involves high fixed costs, which often inhibit SMEs with limited access to capital in starting to sell their products abroad. Forming a joint institution with companies that are interested to export to the same region or country can help to reduce these costs by sharing expenses and information or by jointly promoting their goods and services abroad. Furthermore, research also shows that the size of a business network is positively associated with the entry into new and geographically more distanced markets (Chaney, 2014) and that female entrepreneurs have smaller and less non-family business contacts, which are more valuable in creating new business opportunities (World Bank, 2020). The project and the formed consortia may also serve as a way for the firms to broaden their networks.



Figure 1: Source: World Bank (2020, p.123)

From a research perspective, this project is expected to provide three valuable contributions:

First, there is a scarcity of robust empirical evidence on the impacts of Export Promotion Policies (EPP) despite them being widely employed, often with financial assistance from international donors. This study intends to fill the gap by being the first randomised controlled trial (RCT) to test EPPs directly with a local EPA.

The second and most important contribution is that the experiment will be the first to provide experimental evidence on export promotion activities targeted specifically at female-led firms. So far, there is very little evidence on what measures work to promote female entrepreneurship and export success (Jayachandran, 2020). At one- and two-years post start of the intervention, we will measure effects on women's business empowerment, network size and quality, management, and export practices as well as their export performance.

A final contribution of our research is that it will provide insights on a so-far under-studied EPP (Export Consortia). More specifically, we will assess the impact of inter-firm linkages and social networks on trade, a topic which has been theoretically well-established (Chaney, 2014). The impact of export consortia may prove particularly promising for women, as newest survey results from the World Bank confirm that women possess significantly smaller networks which command fewer resources and consist primarily of family and kin relationships, which are less valuable in creating new business opportunities (World Bank, 2020).

Research Design

Project Description

This research project is evaluating the impact of an export promotion project targeted at female entrepreneurs. More specifically, the studied intervention lasts 21 months (April 2022-December 2023) and includes the formation of four export consortia of around 20-25 companies each (Phase I from April-December 2022) as well as subsequent technical assistance for export preparation (Phase II from January-December 2023). During Phase I participating firms will take part in a series of 8 workshops that provides them with the information and the space to develop their consortia under the assistance of an experience team of trade consultants. Furthermore, the participants take part in 2 networking event and share information through joint Slack channels.

The second phase is dedicated to developing export plans for the consortia and carrying out joint export preparation activities. In the first four months, the consultants will work with the consortiums and the firms to develop export plans that define next steps and objectives for their joint export operations. Furthermore, the firms will receive administrative and logistic support for the maintenance of their consortiums such as the recruitment of coordinator, development of a recruitment policy for new members and internal organization of consortium in work committees.

The intervention is part of the larger PEMA II project, implemented by the German Development Agency GIZ and the Tunisian Export Promotion Agency (EPA) CEPEX, which aims to foster Tunisian exports to Sub-Saharan Africa through a variety of interventions. Both organisations have already jointly supported the successful creation of three export consortia during the first phase of PEMA project (2018-2020). Discussions with the Technical University of Berlin and the Mediterranean School of Business from Tunis resulted in the collaboration between research and policy makers to rigorously evaluate the impacts of this intervention in the form of a randomized field experiment (see Box 1).

The project is currently approaching the end of Phase I that will be concluded with the legal registration of four consortia in the areas of "Information and Communication Technologies", "Advisory service, Education and Training & Sustainable energy and development", "Agriculture and Agri-food", and "Craftsmanship & Cosmetics". One of the highlights of this phase was the presentation of the 4 consortia at the COMESA Tunisia Businesswomen Days, an international trade conference that took place in Tunis on September 29 & 30th 2022 and brought together more than 100 female business leaders from different African countries.

Evaluation Methodology

The impact of this project will be evaluated in the form of a randomized controlled trial, which is a methodology that separates the sample of interest randomly into a treatment and a control group. The former group consists of the 87 firms that will become part of one of the four export consortia and the control group includes 89 firms that will not receive any support.

Figure 2 provides an overview of how the final sample for this research project was formed. In a first step, the program was advocated in a nationwide communication campaign using social media, radio and targeted e-mailing. This led to a sample of 263 interested firms out of which 176 met the program's eligibility criteria. The CEOs of these 176 firms were then surveyed about their current activities and on gender-specific aspects during the baseline survey. The randomized allocation into treatment and control groups was done after the completion of the baseline.

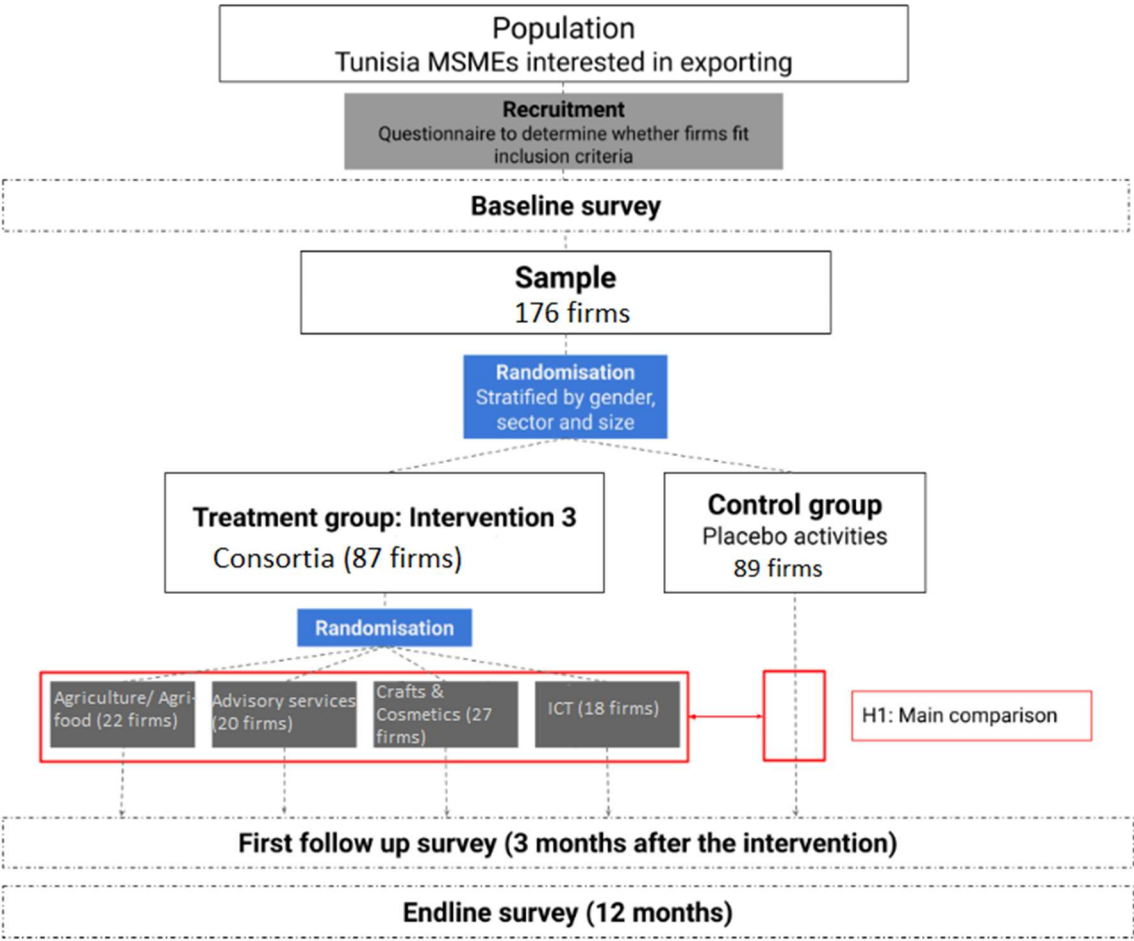


Figure 2: Visualisation of the sample formation process

Box 1. Research-Policy Cooperation

The collaboration between the researchers from TU Berlin and MSB Tunis with the implementation partners GIZ and CEPEX started at the end of 2020. The research team was already active in another export promotion project in Tunisia and approached GIZ and CEPEX to discuss a potential new partnership. At the beginning, the program for the second phase of the PEMA Project was presented and the different interventions were screened regarding their suitability for academic evaluation through a randomized controlled trial. The female export consortia project was quickly identified as a feasible intervention that posed numerous interesting research aspects, such as the impact of business support for female entrepreneurs as well as the evaluation of export consortia, an understudied phenomenon. The research team was involved from the very beginning of the project into also informing the design and theory of change of the intervention with latest academic evidence. We regard an early involvement of the research team as crucial for a successful impact evaluation, as aspects such as the selection of the activities and the size of the supported group are very important for quantitative research and also mostly irreversible at later stages of the project. The communication campaign was also used as an additional area for joint learning, as different communication messages were tested in a parallel intervention between MSB/TU and GIZ and the most effective emails and texts were later used to assure the maximum number of applicants. The research team and project implementors remain in frequent contact during the current implementation phase, and key information about the content of the trainings and participations rates of the firms are being shared to monitor the intervention.

Early Insights

The following graphs provide an overview of the type of firms that are participating in the program. The graphs are based on data collected during the baseline survey in March 2022 and include firms from both the treatment and the control group.

The first and most important observation is that the majority of firms are small enterprises with less than 10 employees. As the median (dashed line) in Figure 3 shows, more than 50% of the firms have less than five employees. However, there are differences between the sectors, with agricultural firms having on average more than 20 employees while firms in the handcrafts/cosmetics and services sector having less than eight employees on average.

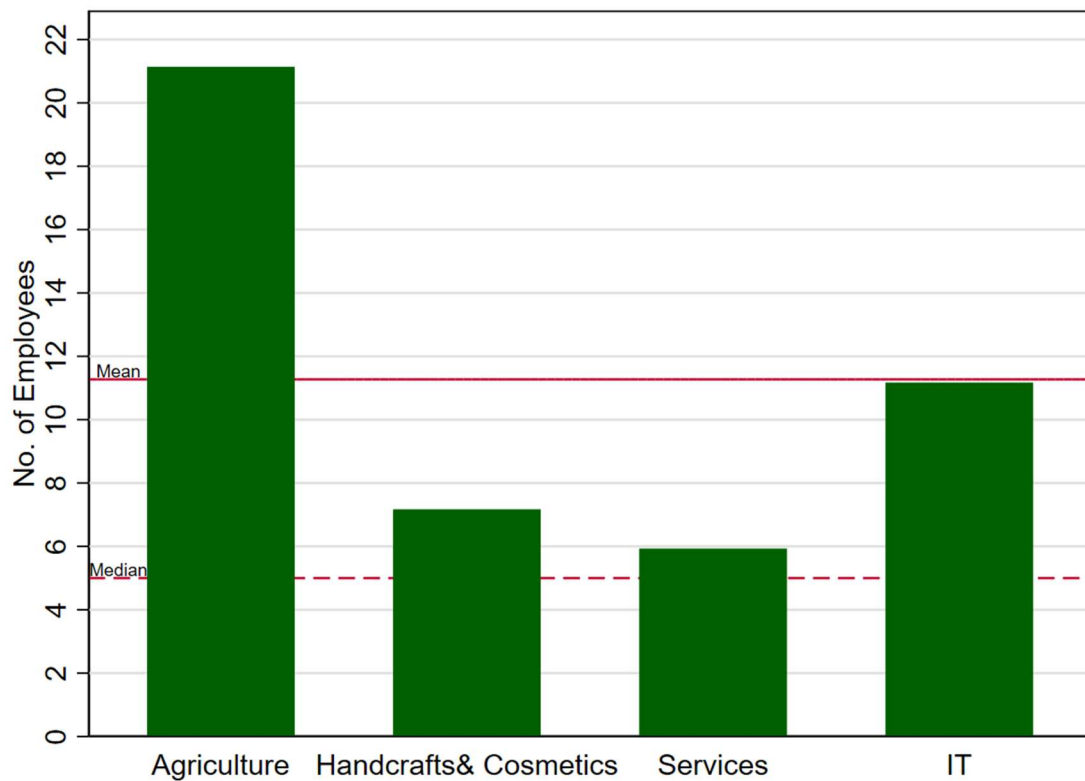


Figure 3: Average number of employees by sector

Firms are also small in terms of sales, with 50% of the sample having less than 25.000 USD (~75.000 Tunisian Dinar) in annual sales (Figure 4). IT firms have relatively large sales compared to their average size in employees, indicating structural differences between the sectors. The large difference between mean and median shows that there are also a couple of firms with much higher sales, but the large majority are small business both in terms of sales and employees.

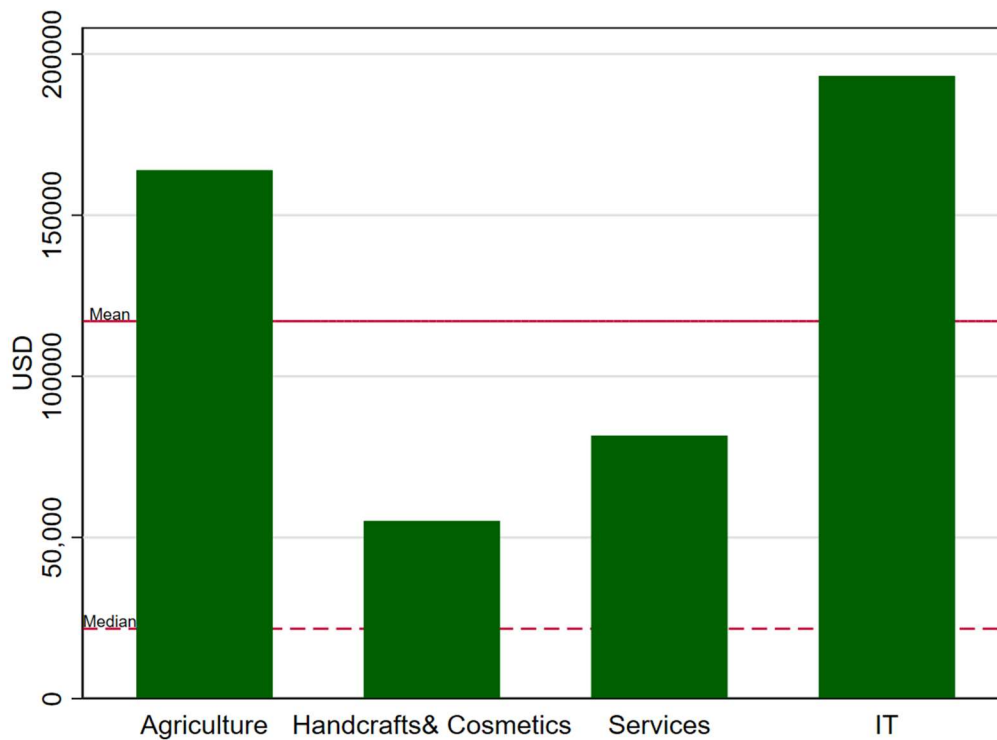


Figure 4: Average annual sales in USD by sector

Figure 5 shows that around 50% of the same are only selling domestically, indicated by zero export destinations, while the other half of firms are primarily exporting to 1-2 countries. The most frequent export countries were France, Libya, Italy and Germany.

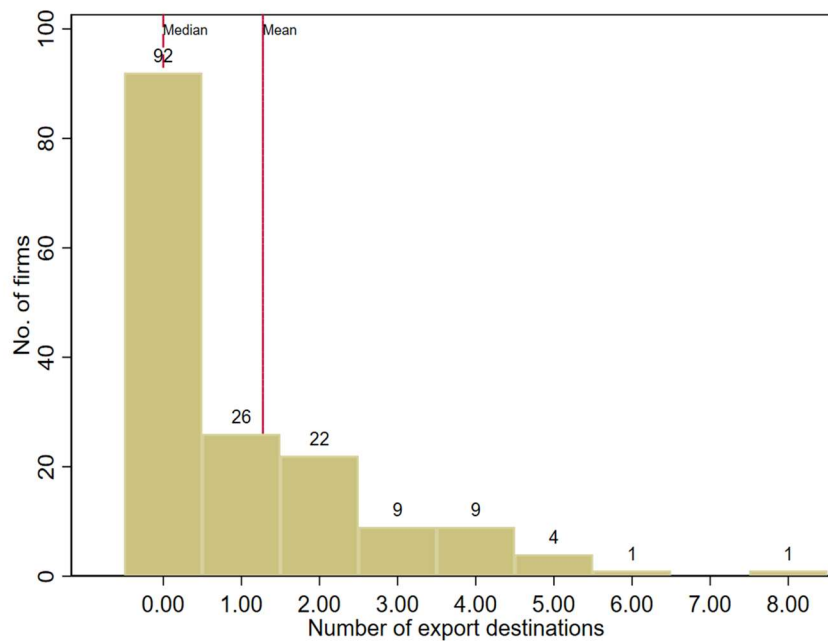


Figure 5: Distribution of number of export destinations

We also asked the female CEOs to self-assess their business acumen and management abilities (Figure 6) and to rate their level of confidence about controlling their business (Figure 7). Both graphs show extremely high levels of business-related confidence, with seven out of nine questions having an average of more than four points on a five-point scale. Women are slightly less confident when asked about their competence to access financial resources and control their environment.

To get a more nuanced view about the actual locus of control of female business owners and remove potential social desirability biases that usually occur when asking questions about confidence and ability, we included a list experiment question. A list experiment is a type of survey question to elicit the truth about sensitive topics that would be subject to desirability bias when asked as an individual question: the sample of respondents is randomly split in half and the first half is asked to report how much they agree with a number of (less sensitive) statements, and the second group receives the exact same number of statements plus the additional sensitive statement.

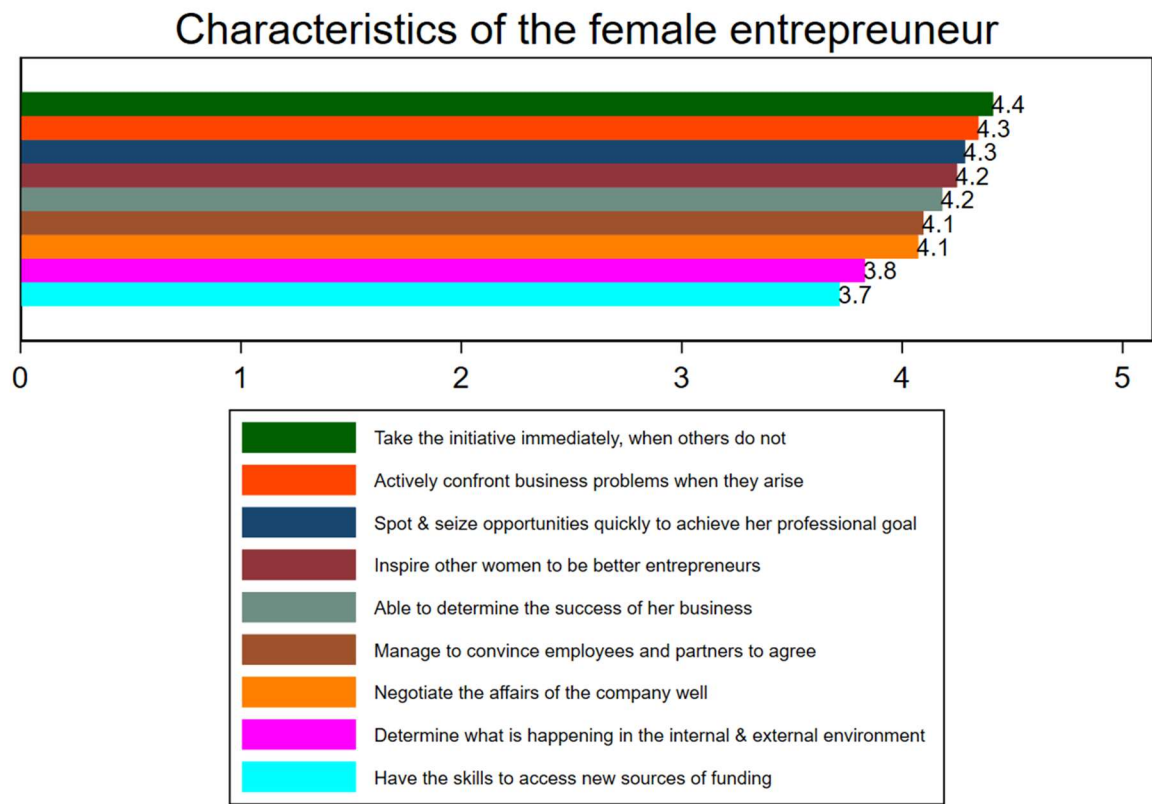


Figure 6: Confidence-related questions

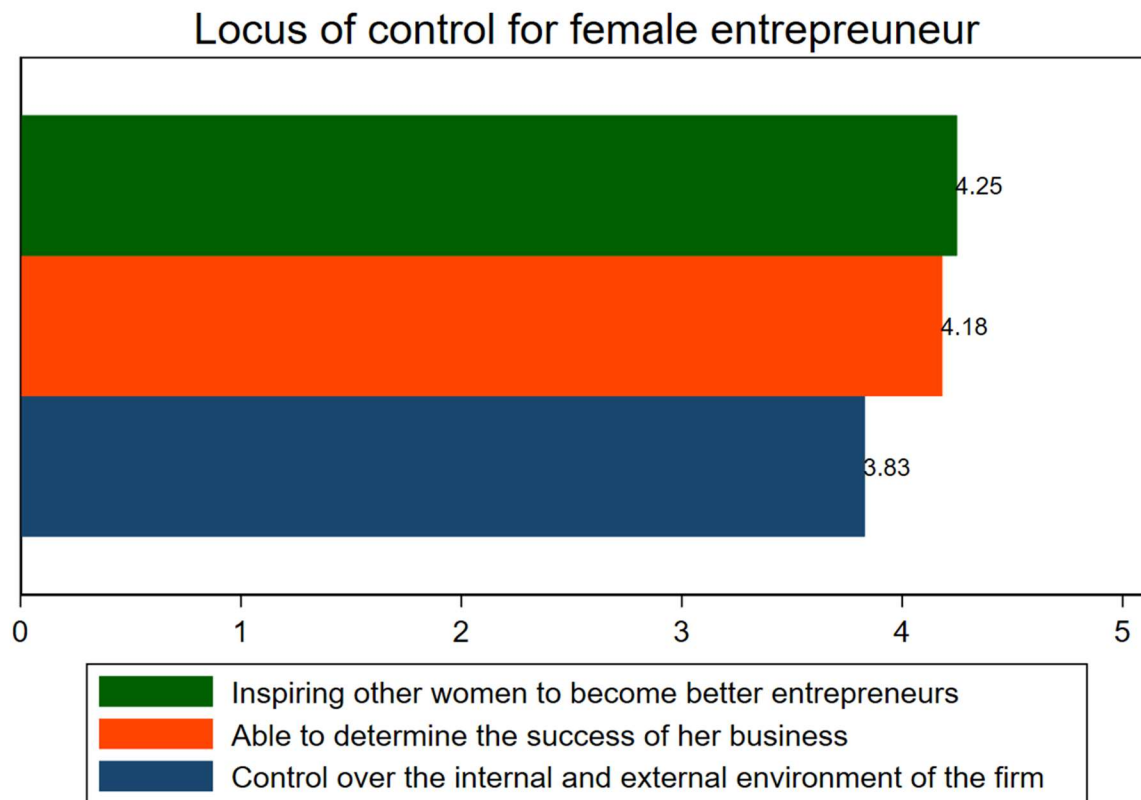


Figure 7: Questions related to locus of control

Both groups were informed that the individual responses to the statements were not recorded but only the total number, making it impossible to trace which person gave which answer on the sensitive question. However, the overall differences in the means between both groups reveals which proportion of the sample responded affirmative to the sensitive question.

In our case, the list experiment asked three questions about their personal motivation in business and half of the sample received the additional statement "*I am consulting my husband or another male family member before strategic decisions.*"

Figure 8 shows the average number of affirmative statements for both groups. Since the group with the sensitive statement had a total of four statements vs. three in the other group, we can conclude that 48% of the women consult their husband or another male family member for strategic business decisions ($3.06 - 2.58 = 0.48$). This finding stands in stark contrast to the high levels of self-declared levels of business control and confidence from the previous questions (Figures 6 and 7). We interpret these findings as an indication that the answers in Figures 6 and 7 may have been subject to a social desirability bias. In the follow-up surveys we will continue to employ the list experiment technique to elicit answers about sensitive gender-related questions with the expectation to see differences between the participating and control firms, as the former have undergone a series of workshops and trainings that also targeted these gender-specific aspects. We are also conducting qualitative interviews to better understand the dynamics between the participants.

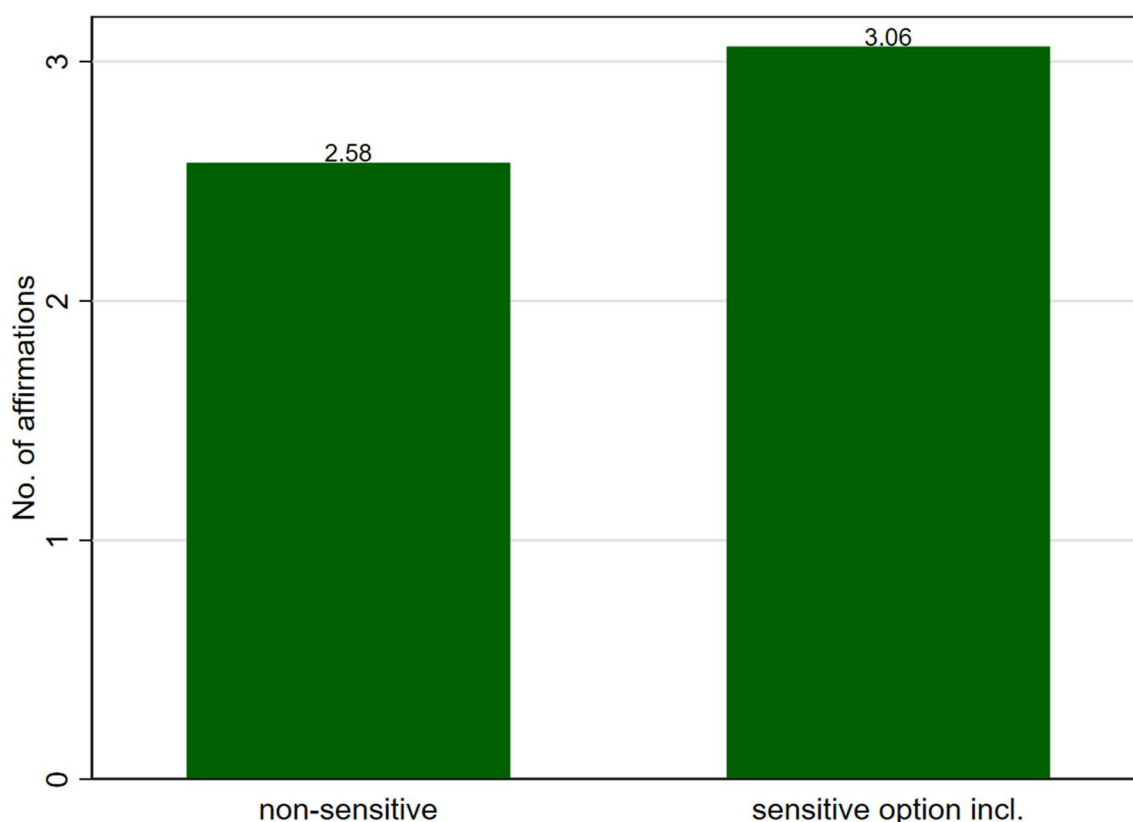


Figure 8: List experiment related to consulting a male family member on strategic business decisions

Outlook and Lessons Learned

After the first phase is completed by the end of November 2022, we will conduct a mid-line survey in January 2023 to investigate whether there are some short-term changes due to the project. This survey will primarily focus on behavioural and perception changes such as the adoption of new management practices, perception regarding the difficulty of exporting and confidence, and gender-related aspects such as perception as a business leader and female role model. As the export consortia have so far not started to carry out joint activities. There will be an endline survey that will be conducted at least six months after the completion of the project where more structural outcomes such as sales, number of export market and other financial indicators will be measured.

So far, the project activities have all been implemented successfully, and a high degree of motivation can be observed among the participating female business leaders. Furthermore, the presentation of the four consortia at the COMESA Tunisia Businesswomen trade conference has received a positive echo in the local media ([Link1](#), [Link2](#), [Link3](#) in French) and additional photos of this event and the preceding workshops can be found in the appendix.

While the project is still at an early stage and has yet to measure the impacts of the intervention, we have already identified two major learnings related to the recruitment of firms for the intervention. First, female-only business training programs require a large and targeted communication campaign with reputable partners. In the case of this project, we were able to incorporate findings about effective email messages from a previous intervention. Furthermore, the project was able to get the support from the Association of Female Businessowners (CNFCE), which helped to promote the project through its channels. In addition to text-based communication, a video that explained the project and its objective was produced and shared via social media. Having a diverse communication campaign was important because data from a previously conducted email experiment showed that different firms hear about the program through the different

channels; for example, registered companies that heard about the program via social media are generally younger and smaller (both in terms of employees and financial size). Having a more diversified set of firms in turn also increases the external validity of the research findings.

Secondly, due to resource constraints eligibility criteria are important to screen out firms for whom the intervention may be less beneficial. However, a certain flexibility is important to reach the targeted sample size. While there are generally numbers available about the proportion of female-led firms in an economy, it is hard to foresee how many companies exactly meet your project's eligibility criteria and how many of those will apply for the program. In our case, while the major eligibility criteria, such as being a female-owned business and having the intention to export, remained in place, we adjusted some size-related criteria to meet our target sample. In these cases, it may be advisable to agree with your project partners beforehand about which criteria are more flexible than others.

The research team is looking forward to presenting the final results of this intervention in 2024 to both practitioners and policymakers as well to an academic audience.

Acknowledgment and Disclaimer

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Supporting the development of small and growing businesses (SGBs) in developing countries is key to enabling job creation and poverty alleviation. Although the evidence base in this area is expanding, there is still much we do not understand about how to best support firm growth and create quality jobs. To address this gap, the Small and Growing Business (SGB) Evidence Fund, a joint effort of the International Growth Centre (IGC) and the Aspen Network of Development Entrepreneurs (ANDE), supports collaborations between researchers and practitioners to understand the most effective ways to support SGBs and the economic and social impact of SGB growth.



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