

# Gender Export Gap in Scotland

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## Gender Export Gap in Scotland

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## Executive Summary

- The report aims to understand the gender export gap in Scotland with the intention to:
  - develop an economic case for addressing a known gender export gap in Scotland and;
  - understand what the most effective avenues to address this gender export gap could potentially be and how they could be implemented.
- The aims were undertaken by drawing on data from: (i) the Longitudinal Small Business Survey to quantify the economic impact of women's under-participation in exporting on Scotland's economy; (ii) 16 interviews with women entrepreneurs who are exporting; (iii) 10 interviews with women who are not exporting; (iv) 5 case studies of successful women entrepreneurs who are exporting; and (v) 9 interviews with key stakeholders from the enterprise support ecosystem.
- Our key finding from the quantitative analysis highlights that reducing the gender export gap could lead to significant benefits – if women-led SMEs exported at the same rate as male-led exporters it could increase total turnover by between £2.1 billion and £6.3 billion over one year and between £3.4 billion and £10.3 billion over two years.
- From the qualitative analysis we provide insights from the women participants regarding: (i) the barriers faced by women exporting and not exporting; (ii) the challenges to the support provided in Scotland; (iii) the opportunities to grow and internationalise; and (iv) the support required for the women to thrive in growing their businesses and exporting.
- From the interviews with the enterprise support organisations, we provide insights into: (i) the barriers and challenges of delivering support; and (ii) the further support needs and opportunities for women-led Scottish SMEs in pre-growth, early-growth, and growth stages.
- Based on the findings we propose several recommendations to the Scottish Government for opportunities to reduce the gender gap in exporting. These recommendations include: (1) running export awareness campaigns for women seeking to internationalise; (2) providing a foundation programme of training and information on e-commerce for women-led businesses; (3) providing a programme of trade missions for women-led businesses; (4) expanding existing export advisory services to cover all of Scotland for these women entrepreneurs; (5) increasing the international exposure of women's networks; (6) providing adequate finance and promoting financial literacy for women entrepreneurs; (7) investigating the links between exporting and productivity for both men and women-led SMEs; (8) collating gender-segregated data for exporting in Scotland; (9) mapping out the current exporting support programmes and initiatives to provide an understanding of

the exporting landscape for women; and (10) aligning policy priorities for women-led SMEs.

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## 1. Introduction

We know that there exists a large global gender export gap where firms led by men are almost twice as likely to sell in foreign markets as firms led by women (Korinek & van Lieshout, 2023). The women-led firms are smaller in size and predominantly based in the services sector which in part contributes to the differences in gender when it comes to exporting. Further, women entrepreneurs face a variety of obstacles to exporting, including the lack of access to finance and the high barriers to trade in the service sector where they are the majority (Korinek & van Lieshout, 2023).

Thus, the report aims to understand the gender export gap in Scotland with the intention to:

- build an economic case for addressing a known gender export gap in Scotland and;
- understand what the most effective avenues to address this gender export gap could potentially be and how they could be implemented.

We begin by synthesising the existing body of academic evidence regarding the barriers and drivers for women-led<sup>1</sup> SMEs to export to complement the existing knowledge from the Scottish Government's scoping work. The academic studies highlighted numerous barriers for women-led businesses, including: (1) fewer and shallower professional networks which limits their access to market information and opportunities; (2) women-led exporters can be perceived negatively by male business leaders leading to complications doing business; (3) are typically smaller in size and are disproportionately affected by barriers to trade; (4) are less likely to access the finance needed to start and grow businesses; and (5) are more likely to be in less export-intensive sectors.

We present the findings of an extensive inquiry into addressing the aims. We do so by drawing on data from: (1) the Longitudinal Small Business Survey (LSBS) from 2016-2022 to quantify the economic impact of women's under-participation in exporting on Scotland's economy; (2) 16 interviews with women entrepreneurs who are exporting; (3) 10 interviews with women who are not exporting; (4) 5 case studies of successful women entrepreneurs who are exporting; and (5) 8 interviews with enterprise support organisations (ESOs).

From the quantitative findings we provide several key insights:

- The proportion of Scottish male-led SMEs that export is historically between 2-9% higher than women-led SMEs.
- The proportion of Scottish women-led SMEs who export is historically between 0-2% lower than UK women-led SMEs.

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<sup>1</sup> Women-led businesses are defined as those majority-led by women, those where women make up more than 50 per cent of the partners or directors in day-to-day control of the business, or where the sole proprietor is a woman.

- Scottish women-led and equally-led SMEs typically have lower turnover and number of employees than male-led SMEs and UK women-led and equally-led SMEs.
- Women-led and equally-led Scottish SMEs typically have a higher sales turnover with a lower number of employees than non-exporter counterparts indicating that they have higher productivity.
- Turnover of Scottish women-led and equally-led SMEs grew after they started exporting, but the growth was lower than for male counterparts. Exporting is linked with about a £2,100,000 one year and £3,650,00 two-year growth on average for women-led and equally-led SMEs and a £4,800,000 one year and £4,800,000 two-year growth for male-led SMEs.
- We did not find a statistically significant relationship for turnover growth after exporting for UK women-led or equally-led SMEs. We found a significant relationship for male-led SMEs, however, turnover coefficients were relatively smaller at about £3,000,000 for one year and £2,650,000 over two years, perhaps indicating that exporting is particularly important for growth in Scotland.
- Typically, after exporting, Scottish women-led SMEs grow employment by about 10 people, although this is not significantly related to exporting and is likely in combination with other productive activities that encourage growth.
- Overall, exporting is imperative for the economy, and reducing the gender export gap could lead to significant benefits – it could increase total turnover between £2.1 billion and £6.3 billion over one year and between £3.4 billion and £10.3 billion over two years.

Several themes from the women participants interviews emerged from the data which included (i) the barriers faced by women exporting and not exporting; (ii) the challenges to the support provided in Scotland; (iii) the opportunities to grow and internationalise; and (iv) the support required for the women to thrive in growing and exporting their businesses. The main themes which arose from the ESO interviews included (i) a lack of awareness and a negative perception of exporting amongst women entrepreneurs (pre-growth); (ii) early-stage of growth was not meeting the criteria for access to support (early growth); and (iii) the challenges accessing skills, resources, and networks to facilitate exporting and enabling international trade (growth).

Based on the findings we propose several recommendations to the Scottish Government to consider for addressing the gender export gap in Scotland. These recommendations include:

1. Running an export awareness campaign specific to women entrepreneurs;
2. Providing a foundation programme of training and information on e-commerce for women-led businesses;
3. Providing a programme of trade missions for women-led businesses;
4. Expanding existing export advisory services to cover all of Scotland for women-led businesses to access;
5. Increasing the international exposure of women's networks;
6. Providing adequate finance and promoting financial literacy to women entrepreneurs;

7. Investigating the links between exporting and productivity for both men and women-led SMEs;
8. Collating gender-segregated data for exporting in Scotland;
9. Mapping the exporting support programmes and initiatives in Scotland to better understand the landscape; and
10. Aligning policy priorities for women-led SMEs.

Figure 1: Infographic of the findings

# Closing the Export Gender Gap in Scotland



The proportion of Scottish male-led SMEs that export is between **2% and 9% higher** than women-led SMEs.



Women-led and equally led Scottish SME exporters have a **higher turnover** with lower number of employees indicating **higher productivity** compared to non-exporters.

Reducing the gender export gap could **increase total turnover** between **£2.1 bn and £6.3 bn** over one year and **£3.4 bn and £10.3 bn** over two-years.



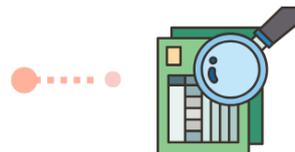
Women-led SME non-exporters were reluctant to grow often due to **caring responsibilities** and a want to remain financially stable.

**Access to finance** and a lack of appropriate support for micro and service based SMEs deters exporting.



Both exporters and non-exporters report being **excluded from support** that focuses on male dominated sectors and from international trade missions.

For exporters **access to information** for support, funding, and market opportunities was a big challenge.



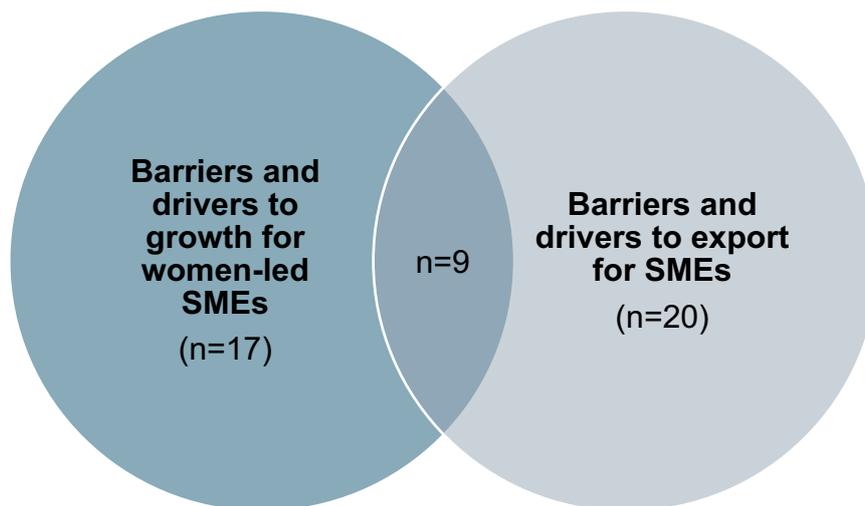
**Brexit** has posed a **big barrier** for exporters from specific women-led sectors such as cosmetics and textiles.

## 2. Scoping review of the academic literature

To understand the current academic knowledge of the barriers and drivers to export for women-led SMEs a scoping review was undertaken using the Scopus database. Details on the methodological approach for the review are provided in Appendix 1 (full references provided in Appendix 2). We focused our review on familiar barriers and drivers from a western, developed country context so that it was generalisable to the Scottish context.

Overall, limited academic research has been conducted to understand the barriers and drivers to export specifically for women-led SMEs. Therefore, our approach to the review included synthesising understanding at the current knowledge intersections of (1) the barriers and drivers effecting the growth of women-led SMEs and (2) the general barriers and drivers to exporting for all SMEs. Figure 2 visualises the approach we took to generate a holistic understanding of what is contributing to the gender export gap and the number of articles included in the review.

**Figure 2: Review approach to understand barriers and drivers to women-led SME export**



### 2.1 Barriers and drivers to growth for women-led SMEs

The scoping review identified several barriers and drivers to growth for women-led SMEs. The two main drivers that promote growth include:

1. Participation in appropriate support programmes can reduce the perception of barriers, stereotypes, and provide access to role models.
2. Placing importance on strategic planning, finance acquisition, and risk-taking.

However, the academic literature identified numerous barriers to growth which are summarised below.

## **Main barriers to the growth of women-led SMEs - A snapshot of the academic literature**

### **Structural dissimilarities**

- Women are over-represented in low-value, high-labour intensive markets and service sectors.
- Women-led SMEs are typically younger and smaller than male-led SMEs.
- Women-led SMEs are often home-based.

### **Access to finance**

- Women generally start and grow business with less access to finance than male counterparts (e.g., reluctance of bank or financial institutions to fund expansion).
- Those with caring responsibilities face time constraints, financial constraints, and stigma.

### **Access to management**

- Typically, women founders have less management experience to bring into small young businesses.
- Older businesses don't hire women as frequently as younger businesses.
- Women are underrepresented on boards and within leadership positions in larger organisations.
- Lack of confidence in pursuing international business opportunities.

### **Access to markets**

- Women generally have smaller network which reduces the access to information and market knowledge.
- Women-led SMEs are less likely than male-led SMEs to win public procurement contracts.
- Women are typically located in markets with low growth prospects.
- Women are less likely to go on international assignments due to attitudes of foreign cultures towards women, interpersonal factors such as belonging in 'workgroups', and having dual career-carer roles.

### **Access to support and business spaces**

- Gendered support can be enabling or restrictive depending on the stage of business development. More established, growth women-led SMEs can be limited by gender-specific support.
- Ineffective business support and feeling like they do not belong can detract women from business growth.

### **Attitudes to business growth and gender roles**

- Women are more likely than men to have dual career and primary carer roles.
- Business growth is related to a masculine stereotype and can reduce self-efficacy of women.
- Lack of female role models.
- Women are more likely to enter entrepreneurship as a reactive decision. This could be because of needing to balance career and caring responsibilities, loss of job, need for flexibility etc.

## **2.2 Barriers and drivers to exporting for SMEs**

The scoping review identified several barriers and drivers to exporting for SMEs, please note the degree of their influence was not measured. The main drivers of exporting include:

- Free-trade agreements, attracting foreign direct investment and promoting linkages between SME suppliers and large multi-nationals are all important for expanding the size of local markets and creating trading opportunities.
- Government programmes, trade missions, and international partnerships help overcome barriers.
- Having external (non-family) managers can drive exporting in family-owned businesses.
- Higher brand and cultural awareness, and acceptable online communication practices reduce barriers to engaging overseas.
- The development and maintenance of personal relationships and partnerships facilitates access to market knowledge.

However, the academic literature identified numerous barriers to exporting which are summarised in below.

### **Main barriers to exporting for SMEs – A snapshot of the academic literature**

#### **Structural dissimilarities**

- Export business typically have higher business turnover and are in specific industries.
- Smaller, rural firms with limited resources are less exposed to global markets.
- Larger businesses typically have stronger international networks.

#### **Institutional conditions**

- Taxation can be an obstacle for exporting.
- Small business owners may require more guidance or advice than those who have already undertaken an international expansion.

#### **Resource constraints**

- High cost of establishing international operations.
- Small businesses have a less resource and more difficulty accessing finance than larger businesses. This is exacerbated for rural businesses.
- Small businesses generally have a lack of negotiating power.
- Travel expenses and the cost of export intelligence are preventive.

#### **Management capabilities**

- Limited international experience restricts efforts whereas managerial experience and commitment increases efforts.
- Human resource and market development capabilities are needed.

### **Organisation structure and culture**

- The presence of an export department is significant.
- Having access to logistics and distribution networks increases export.
- Having a higher export-orientation.

### **Innovation**

- Internationalisation can be driven by innovation, particularly product innovation, but also service innovation.
- Process innovation is not specifically linked to exporting.
- Businesses in competitive markets are more likely to adapt their products.

### **Information and awareness**

- Insufficient knowledge and access to information on foreign markets restricts export attempts.

## **2.3 Synthesis: How barriers and drivers to export are likely to affect women-led SMEs**

The limited academic literature on the export challenges faced by women-led SMEs highlights four main points:

1. Women-led SMEs are overrepresented in industries with a low propensity for export.
2. Women perceive cultural differences in the perception of women amongst export countries making it hard to conduct business.
3. Women are more likely to combine carer and exporting roles which can slow exporting ambitions and growth.
4. Women are under-represented in support spaces that promote business growth and export-orientation.

A synthesis of the main barriers that women-led SMEs face is presented in Table 1. There are several barriers that SME exporters face which will be exacerbated for women-led SMEs.

**Table 1: Summary of how export constraints and drivers likely effect women-led SMEs**

<b>Constraint</b>	<b>Barriers and drivers to export</b>	<b>Barrier for women-led SMEs</b>	<b>Likely impacts for export</b>
Structural dissimilarities	<ul style="list-style-type: none"> <li>• Export businesses typically have higher business turnover and are in specific industries.</li> <li>• Smaller, rural firms with limited resources are less exposed to global markets.</li> <li>• Larger businesses typically have stronger international networks.</li> </ul>	<ul style="list-style-type: none"> <li>• Women-led SMEs are over-represented in low-value, high-labour intensive markets, and are typically younger and smaller.</li> <li>• Self-employment and business ownership represents a significant source of employment in rural areas.</li> <li>• Women-led SMEs are typically smaller in size than male-led SMEs.</li> </ul>	<ul style="list-style-type: none"> <li>• Lower overall number of women-led SME exporters.</li> <li>• Rural women-led SMEs are less likely to export.</li> <li>• Women-led SMEs likely have smaller international networks.</li> </ul>
Institutional conditions	<ul style="list-style-type: none"> <li>• Government programmes, industry networks, trade missions, and international partnerships help overcome barriers.</li> </ul>	<ul style="list-style-type: none"> <li>• Women are under-represented in business networks and trade missions.</li> <li>• Business support is often regarded as 'not-fit-for-purpose' by women entrepreneurs.</li> </ul>	<ul style="list-style-type: none"> <li>• Women-led SMEs have less access to international markets.</li> <li>• Women-led SMEs are less motivated to pursue export.</li> </ul>

Resource constraints	<ul style="list-style-type: none"> <li>• Small businesses have a less resource and more difficulty accessing finance than larger businesses.</li> <li>• Small businesses generally have a lack of negotiating power.</li> <li>• Travel expenses and the cost of export intelligence are preventive.</li> </ul>	<ul style="list-style-type: none"> <li>• Women-led SMEs are typically smaller than male-led SMEs.</li> <li>• Women typically start and grow business with less finance capital than male-led SMEs.</li> <li>• Women-led SMEs are typically smaller than male-led SMEs.</li> <li>• Women typically start and grow business with less finance capital than male-led SMEs.</li> </ul>	<ul style="list-style-type: none"> <li>• Women-led SMEs have less resources for export.</li> <li>• Women-led SMEs generally have less negotiating power restricting export feasibility.</li> <li>• Travel expenses and cost of export intelligence are more preventive for women-led SMEs.</li> </ul>
Management capabilities	<ul style="list-style-type: none"> <li>• Limited international experience restricts efforts whereas managerial experience and commitment increases efforts.</li> </ul>	<ul style="list-style-type: none"> <li>• Women typically start businesses with lower management experience than male counterparts.</li> </ul>	<ul style="list-style-type: none"> <li>• Women-led SMEs are less likely to have international experience and commitment.</li> </ul>
Organisation structure and culture	<ul style="list-style-type: none"> <li>• Having access to logistics and distribution networks increases export.</li> </ul>	<ul style="list-style-type: none"> <li>• Women typically have smaller international networks than male counterparts.</li> <li>• Women-led SMEs typically have less access to financial capital to build international networks.</li> </ul>	<ul style="list-style-type: none"> <li>• Women-led SMEs likely have less access to international logistics and distribution networks.</li> </ul>

Innovation	<ul style="list-style-type: none"> <li>• Internationalisation can be driven by innovation, particularly product innovation, but also service innovation.</li> <li>• Businesses in competitive markets are more likely to adapt their products.</li> </ul>	<ul style="list-style-type: none"> <li>• Women are generally overrepresented in sectors with generally lower rates of innovation.</li> <li>• Women are generally overrepresented in highly competitive markets.</li> </ul>	<ul style="list-style-type: none"> <li>• Women-led SMEs are less likely to be involved in product innovation for export.</li> <li>• Women-led SMEs are more adept at adapting products.</li> </ul>
Information and awareness	<ul style="list-style-type: none"> <li>• Insufficient knowledge and access to information on foreign markets restricts export attempts.</li> <li>• The development and maintenance of personal relationships and partnerships facilitates access to market knowledge.</li> </ul>	<ul style="list-style-type: none"> <li>• Women generally start and grow businesses with less management experience than male counterparts.</li> <li>• Women-led SMEs generally have less access to market.</li> <li>• Women business owners have been found to have closer-tie networks.</li> </ul>	<ul style="list-style-type: none"> <li>• Women-led SMEs have less knowledge on export markets.</li> <li>• Women-led SMEs, once developing international networks, are better at maintaining them.</li> </ul>

### 3. Methodology

To provide greater insight into understanding the gender exporting gap in Scotland, we collected evidence in numerous ways and from different sources. Our data were collected during the month of May 2024 via quantitative and qualitative methods. To quantify the economic impact of women’s under-participation in exporting on Scotland’s economy we performed several calculations using a conditional difference-in-difference (CDiD) approach. This combined propensity score matching (PSM) and difference-in-difference (DiD) approaches to identify the direct impacts of entering an export market. To identify the mechanisms to support exporting and address the barriers that women-led SMEs face, in-depth interviews with women entrepreneurs (exporters and non-exporters) and ESOs were undertaken. Furthermore, we collated five case studies of successful women entrepreneurs exporting to give insights into their businesses and the support that they received to export.

### **3.1 Quantitative data collection**

Our data came from the UK Longitudinal Small Business Survey, which provides annual information on current SME performance and the factors that affect this. The data covers all sizes of SMEs. The 2017-2020 period was selected for the main analysis as it gave us a pre-treatment and post-treatment period for matching and subsequent impact evaluation, with the treatment (exporting) selecting as occurring in 2018.

### **3.2 Qualitative data collection**

It should be noted that the University of Strathclyde's Code of Practice for Research Ethics was followed, and confidentiality and anonymity were maintained for all individuals who participated in the data collection.

The Research Ethics Committee at Strathclyde Business School (Hunter Centre for Entrepreneurship) approved the application for the data collection and for the participant information sheet and consent form. The participants were all informed that the study was on behalf of the Scottish Government. An email was sent to the participants inviting them to participate, highlighting the aims of the study and confirming the Scottish Government's involvement (Appendix 3).

#### **Stage 1: Semi-structured interviews**

Semi-structured individual interviews were undertaken during May 2024 and there were three groups of participants: women who were exporting (Table 2 - 16 interviews), women entrepreneurs who were not exporting (Table 3 - 10 interviews), and ESOs, those agencies who provide support for exporting in Scotland (9 interviews). All interview protocols were discussed and confirmed with Scottish Government and are included in Appendix 4.

We employed a purposeful sampling method which is often used in qualitative research to select a specific group of individuals. In this study, we were conscious to ensure that the sampling of the participants represented various perspectives, characteristics and/or experiences related to the research aims. As such this allowed us to focus on specific areas of interest and gather in-depth data on the topic in question re. gender, exporting, SMEs, Scotland and cross-sector participation, with a focus on the service sector. Purposeful sampling was also appropriate because it is commonly used in small-scale studies with limited sample size.

The selection of businesses and other relevant participants was undertaken in consultation with the Scottish Government. We reached out to our sampling group through our personal and professional networks, through LinkedIn and various organisations.

Table 2 shows the women exporters who were interviewed. Numerous sectors are represented from retail to manufacturing to technology, and the women had a range of products/services on offer. However, not all sectors are represented as this would

require a larger sample and there are sectors where women are not represented in Scotland e.g., construction. Furthermore, there are services that cannot be exported e.g., catering, where we intentionally did not reach out to women entrepreneurs in these sectors but despite these limitations, the sample provides relevant conclusions to inform the recommendations.

Each interviewee was asked to discuss their business, opportunities, and challenges in starting up their business and exporting, their support mechanisms and the challenges they faced when growing and exporting, and finally their future plans for their business. We did not ask the participants for their turnover information, as many SMEs prefer not to answer this question (substantiated from academic research limitations and the academic team's experience) and often, this question can stall the interview or create a barrier between interviewer/interviewee.

**Table 2: Women entrepreneurs exporting**

<b>Pseudonym</b>	<b>Sector</b>	<b>Products/services</b>	<b>Year business was started</b>	<b>No. of years exporting</b>	<b>No. of employees (does not include owner)</b>
Participant 1	Manufacturing/Retail	Clothing	2016	8	20
Participant 2	Services	Law	2020	4	0
Participant 3	Technology	Health	2023	1	5
Participant 4	Services	Consultancy and training	2015	9	11 (and 7 subcontractors)
Participant 5	Manufacturing	Materials	2003	21	35
Participant 6	Manufacturing	Gardening	2002	22	10
Participant 7	Manufacturing	Clothing	2014	2	7
Participant 8	Services	Consultancy and training	2000	12	50
Participant 9	Manufacturing	Beauty	2021	3	3
Participant 10	Manufacturing	Textiles	2013	6	12
Participant 11	Manufacturing	Beauty	2021	1	3
Participant 12	Services	Education	2015	7	14
Participant 13	Manufacturing	Household	2021	2	0
Participant 14	Media	Consultancy services	2006	15	40
Participant 15	Manufacturing	Health	2013	8	0
Participant 16	Services	Consultancy and training	2017	2	82

Table 3 shows the women who participated in the study who were not exporting. They were asked about their business, opportunities, and challenges, if they wanted to export and if they did what support they would need. Again, like the women who are exporting, the women in Table 3 have their businesses in a range of sectors which included media, retail, technology and services. If they did not want to export, they were then probed as to why they did not want to export.

**Table 3: Women entrepreneurs not exporting**

<b>Pseudonym</b>	<b>Sector</b>	<b>Products/services</b>	<b>Year business was started</b>	<b>No. of employees (does not include owner)</b>
Participant 17	Media	Digital marketing services	2011	4
Participant 18	Retail	Bags	2023	0
Participant 19	Technology	Health	2024	0
Participant 20	Services	Consultancy	2008	0
Participant 21	Services	Consultancy	2016	4
Participant 22	Services	Education	2023	0
Participant 23	Services	Consultancy	2020	4
Participant 24	Services	Marketing	2017	3
Participant 25	Technology	Health	2024	0
Participant 26	Services	Coaching	2024	0

We also interviewed 9 individuals who were part of the wider Scottish entrepreneurial ecosystem and offered and delivered support to SMEs.

**Enterprise support organisations: Pseudonym and Position**

- ESO1 Chief Operating Officer
- ESO2 International Trade Director
- ESO3 Project Manager
- ESO4 Senior Development Manager
- ESO5 Head of Innovation & Entrepreneurship
- ESO6 CEO
- ESO7 Chair
- ESO8 Chair
- ESO9 Trade Services

## **Stage 2: Case studies of successful women entrepreneurs exporting**

In parallel with conducting the interviews with the women entrepreneurs and the ESOs, we also undertook 5 case studies of successful women entrepreneurs in Scotland who were exporting. Each interviewee was asked to discuss their business, opportunities and challenges in starting up their business and exporting, their support mechanisms and the challenges they faced when growing and exporting, and finally their future plans for their business. These case studies give insights into how women export and why. The case studies were undertaken because the interviews were a procedure of gathering data whereas the case studies were a research method which allowed us to examine and analyse the data in-depth from a small number of participants with much more detailed probing and responses. Appendix 5 details the case studies.

### **3.3 Data analysis**

#### **3.3.1 Quantitative data analysis**

The data was analysed by first using descriptive statistics to identify the proportion of women-led and male-led SMEs who exported<sup>2</sup> from the total number of SMEs in Scotland. We then conducted propensity score matching (PSM) and a difference-in-difference (DID) approach to ascertain the impact of exporting on our two dependent variables – turnover and number of employees.

The DID approach enables us to compare the changes in firm performance between exporting firms and their matched non-exporting counterparts. The PSM increases the reliability of the DID calculation by matching treated firms with a control firm using observable characteristics in the before-treatment period. We selected three sets of independent variables for our matching approach: location type, industry sector, and geographical context.

We chose 2018 as our exporting year to give us two years of data before and after to capture impact. We do not report on three-year impact of exporting as 2020 was affected by COVID-19.

See Appendix 6 for the full methodological note. Below highlights a summary of our methodological process.

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<sup>2</sup> As of 2022, there were 358,575 SMEs in Scotland – reported in Business in Scotland: 2022 – available from: <https://www.gov.scot/publications/businesses-in-scotland-2022/>

- 1 **Start with all SMEs in the UK..**  
→ Select firms that export in 2018 and discard firms that exported before 2018
- 2 **Split the groups into UK and Scotland...**  
→ Scotland – treatment 182  
→ UK – treatment 3,333
- 3 **Split the groups by gender ownership**  
→ Women-led/equally led treatment (Scotland, 52; UK, 1,579)  
→ Male-led treatment (Scotland, 100; UK, 3,128)
- 4 **Selected three sets of independent variables for matching...**  
→ Urban/rural; sector; nation
- 5 **Estimate propensity scores**  
→ Estimated using a logistic regression model.  
→ Conditional probability that a firm exports based on firm characteristics.
- 6 **Match each treated unit with multiple control units with different weights**  
→ Kernel matching allowed all firms to be matched with control firms.  
→ Conduct PSTest to verify control and treatment are balanced.
- 7 **Conducted the DiD to estimate treatment effect.**  
→ Turnover, number of employees, 2018, 2019  
→ Women-led/equally led & male-led  
→ Scottish, UK

### 3.3.2 Qualitative data analysis

The interviews were analysed in a systematic and inductive manner. All interviews were recorded with permission and transcribed verbatim. We followed strict guidelines in analysing and reporting qualitative research (Gioia et al., 2013). The first was to ‘clean’ the transcripts – the real-time transcribing happened simultaneously when the interviews were being audio recorded. The second step involved manually coding the data and identifying preliminary ideas in the data and grouping them into categories, known as open coding (first order codes) - key words, phrases, sentences, and paragraphs from the transcripts and field notes were highlighted. The final step involved coding and interpreting all codes to ensure verification of the data, re-coding where necessary and linking key concepts to build a narrative. The analysis was done for each group – women entrepreneurs exporting, women entrepreneurs not exporting and the ESOs.

The following section highlights the findings from the data analysis – both from the quantitative and qualitative analysis.

## 4. Findings

### 4.1 Quantitative findings

Throughout this section we refer to four categories of SME ownership based on gender:

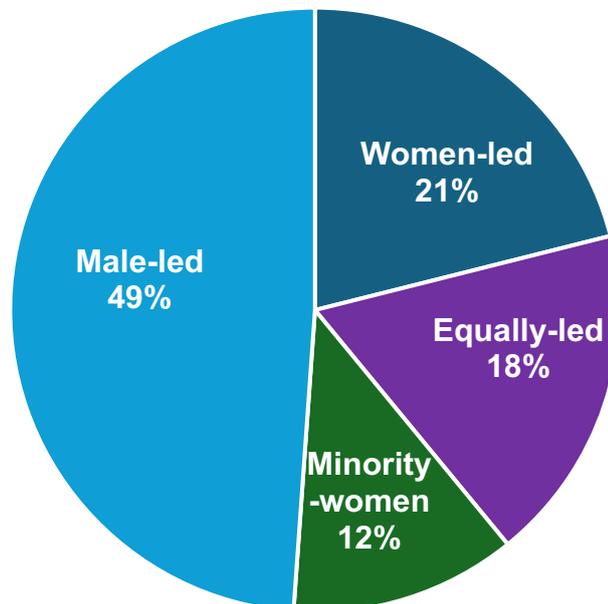
- Women-led refers to SMEs controlled by a single woman or having a management team of which a majority were women.
- Equally-led refers to SMEs controlled equally by women and men or having a management team of which are equally women and men.
- Minority-women led refers to SMEs having a minority of women in control or in the management team.
- Male-led refers to SMEs entirely controlled or managed by men.

#### 4.1.1 Overview of women-led SME exporters in Scotland

##### 4.1.1.1 What proportion of Scottish SME exporters are women-led?

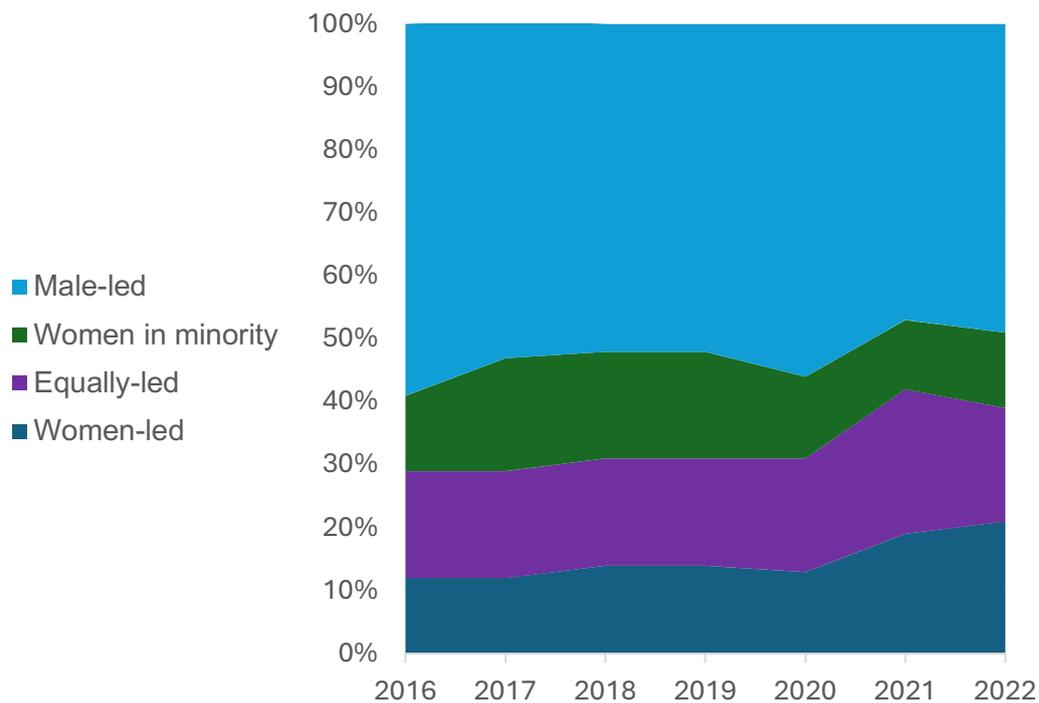
In 2022, of the SMEs that exported in Scotland, only 21% were women-led, while another 18% were equally-led by women and men. 49% of exporters were entirely male-led, while another 12% had women as the minority ownership (Figure 2).

**Figure 2: Scottish SME exporters ownership 2022**



Historically, the proportion of Scottish SME exporters that are women-led is lower, between 12% and 14%, while the proportion of male-led is higher, between 52% and 59%. However, 2021 and 2022 saw a small increase of women-led exporters and a small decrease in male-led exporters (Figure 3, Table 4).

**Figure 3: Scottish SME exporter ownership, 2016-2022**



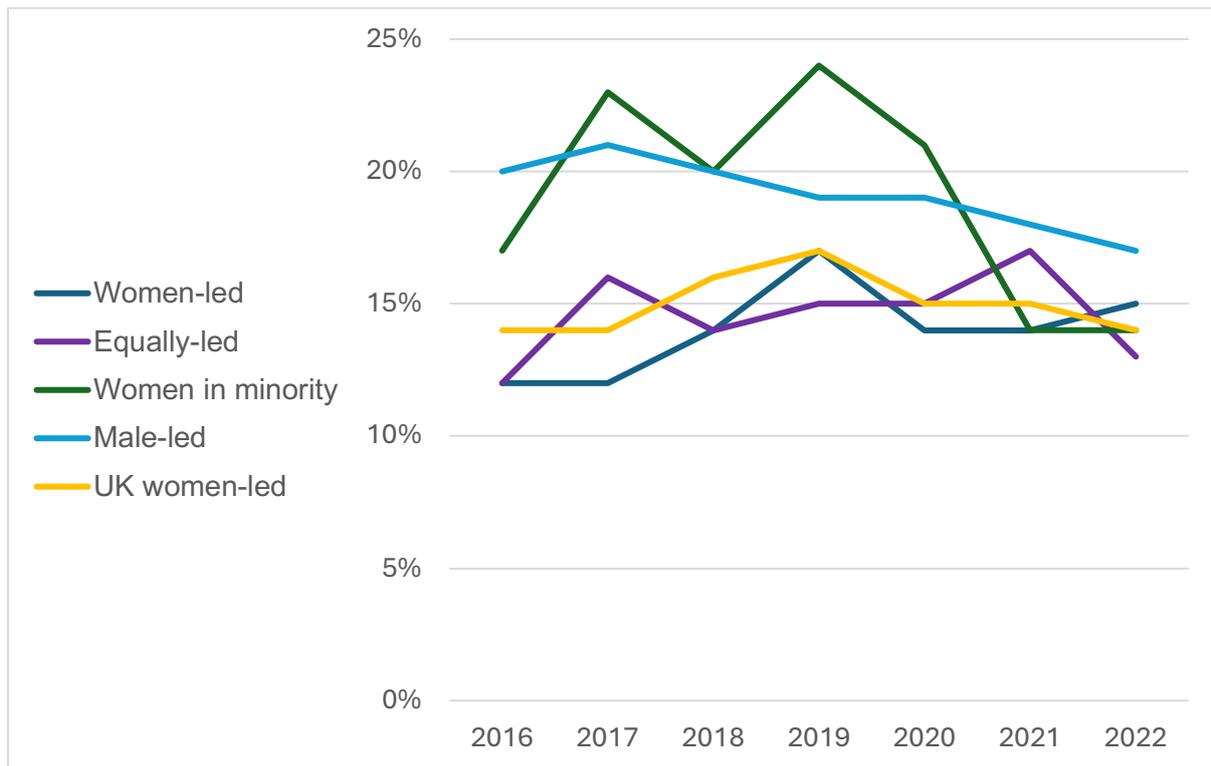
**Table 4: Scottish SME exporter ownership, 2016-2022**

Year	Women-led	Equally-led	Women in minority	Male-led
2016	12%	17%	12%	59%
2017	12%	17%	18%	54%
2018	14%	17%	17%	52%
2019	14%	17%	17%	52%
2020	13%	18%	13%	56%
2021	19%	23%	11%	47%
2022	21%	18%	12%	49%

#### 4.1.1.2 What proportion of women-led SMEs export in Scotland?

Historically, between 12% and 17% of women-led SMEs export in Scotland, whereas between 17% and 21% of male-led SMEs export. Year on year, a higher proportion of male-led SMEs export compared to women-led SMEs by between 2% and 9%. Generally, a slightly higher proportion of UK women-led SMEs export (0-2%) than Scottish counterparts (Figure 4, Table 5).

**Figure 4: Proportion of Scottish SMEs that export by ownership, 2016-2022**



**Table 5: Proportion of Scottish SMEs that export by ownership, 2016-2022**

Year	Women-led	Equally-led	Women in minority	Male-led	UK women-led
2016	12%	12%	17%	20%	14%
2017	12%	16%	23%	21%	14%
2018	14%	14%	20%	20%	16%
2019	17%	15%	24%	19%	17%
2020	14%	15%	21%	19%	15%
2021	14%	17%	14%	18%	15%
2022	15%	13%	14%	17%	14%

#### 4.1.1.3 Typically, how much do women-led Scottish SME exporters turnover?

Despite a lot of fluctuation year on year, women-led and equally-led Scottish SME exporters typically turnover more than non-exporters. However, the average compared to male-led exporters is typically much lower. Generally, UK women and equally-led SME exporters have a higher turnover than Scottish counterparts (Figure 5, Table 6).

**Figure 5: Average turnover of women-led Scottish SME exporters and non-exporters, 2016-2022**



**Table 6: Average turnover of women-led Scottish SME exporters and non-exporters, 2016-2022**

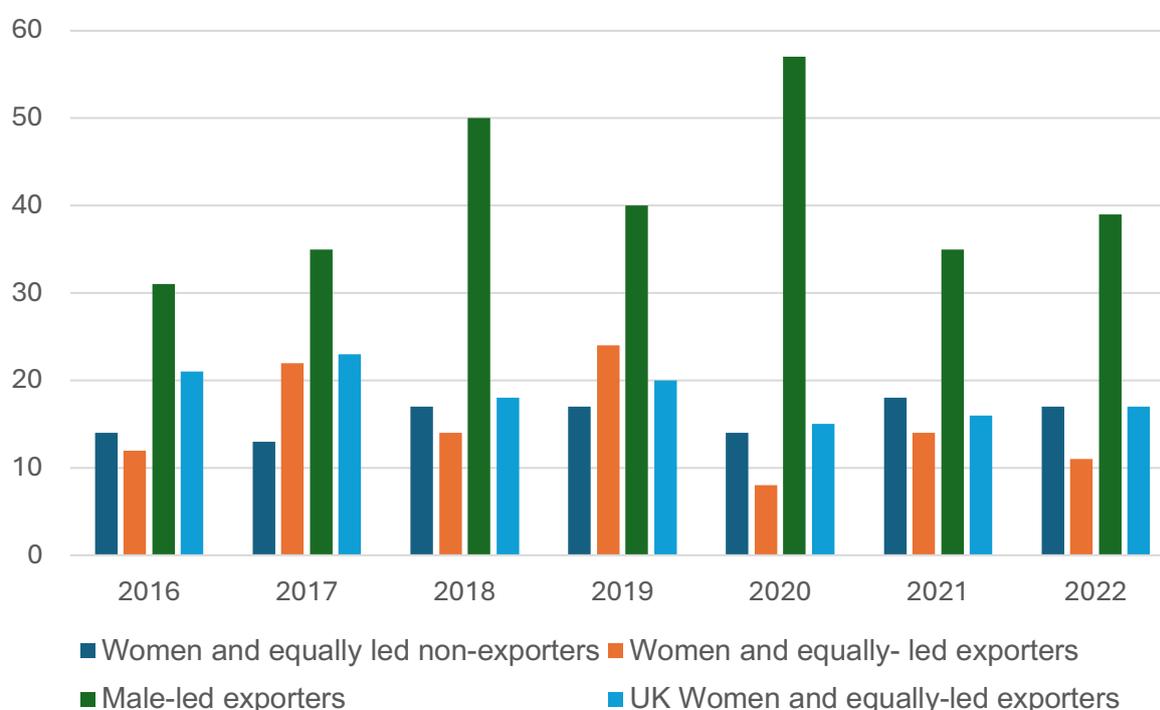
Year	Women and equally led non-exporters	Women and equally-led exporters	Male-led exporters	UK Women and equally-led exporters
2016	£735,986	£1,748,472	£10,600,007	£3,077,148
2017	£711,193	£2,698,966	£5,991,584	£2,945,299
2018	£1,132,173	£2,464,075	£8,137,308	£2,892,809
2019	£1,440,956	£3,663,341	£8,381,998	£3,195,108
2020	£1,435,703	£593,137	£7,272,500	£2,000,169
2021	£784,621	£3,034,553	£7,594,836	£2,759,914
2022	£1,099,633	£1,545,727	£11,300,007	£3,003,660

#### 4.1.1.4 Typically, how many employees do women-led Scottish SME exporters have?

Despite fluctuation year on year, interestingly, women-led and equally-led Scottish SME non-exporters typically employ more than exporters. However, the average number of employees compared to male-led exporters is typically much lower. Again, UK women and equally-led SME exporters generally have a higher number of employees than Scottish counterparts.

Considering women-led exporters also turnover more than non-exporters, this perhaps points to a possible productivity gain as they turnover more with fewer employees (Figure 6, Table 7).

**Figure 6: Average employment of women-led Scottish SME exporters and non-exporters, 2016-2022**



**Table 7: Average number of employees of women-led Scottish SME exporters and non-exporters, 2016-2022**

Year	Women and equally led non-exporters	Women and equally-led exporters	Male-led exporters	UK Women and equally-led exporters
2016	14	12	31	21
2017	13	22	35	23
2018	17	14	50	18
2019	17	24	40	20
2020	14	8	57	15
2021	18	14	35	16
2022	17	11	39	17

## **4.1.2 The impact of exporting on business growth**

### **4.1.2.1 Does turnover increase for women-led Scottish SMEs post export?**

There is statistical evidence that exporting increases turnover for both women-led and male-led SMEs in Scotland. There is no significant evidence that exporting increased turnover for UK women-led SMEs. This study is not able to draw conclusions on the reasons for this, which for example, could relate to structural differences, perhaps because of access to larger and closer local markets.

For Scottish SMEs that were women/equally-led and began exporting in 2018, the 1-year coefficient for DiD (compared with non-exporting pre-2018) was £2,217,040 with a p-value of 0.14. This means that there was a marginally statistically significant impact of exportation on turnover. This suggests that women/equally-led SMEs that began exporting in 2018 experienced on average a £2.2 million greater increase in turnover one year after they started exporting compared with non-exporters.

Likewise, the DiD coefficient for male-led SMEs was £4,832,569 with a p-value of 0.05, showing a significant positive impact on turnover for exporters compared to non-exporters. This shows that while both women/equally-led SMEs and male-led SMEs experienced an uplift in turnover compared to non-exporters over one year, male-led exporters experienced a greater one-year uplift.

Those that exported in 2018 were followed up in 2019 and we still found a positive significant impact on their turnover, with a DiD coefficient of £3,672,016 and a p-value of 0.001. This means that the exportation in 2018 had a significantly positive impact on the turnover of the women/equally-led SMEs by year two.

The DiD coefficient for male-led SMEs was £4,777,001 with a p-value of 0.02. This means that there was significant impact of exportation on the turnover of the male-led SMEs after year two. However, the impact of exporting after two years was still greater for male-led SMEs compared to women/equally-led SMEs.

While there was no statistical evidence that exporting increased turnover for UK women-led and equally led SMEs over either one year or two years, there was evidence that UK male-led SMEs increased turnover. The DiD coefficient for UK male-led SMEs was £2,988,281 with a p-value of 0.03 for one year. The two years DiD coefficient for turnover was £2,650,130 with a marginally significant p-value of 0.11.

### **4.1.2.2 Does the number of employees increase for women-led Scottish SMEs post export?**

There is no statistical evidence that exporting increases the number of employees for women-led in Scotland. Likewise, there is no significant evidence that exporting increased the number of employees for UK women-led SMEs. However, there is marginal evidence that exporting encourages growth in the number of employees for both UK and Scottish male-led SMEs.

In 2018, the DiD coefficient (compared with non-exporting pre-2018) for women/equally-led Scottish SMEs that exported was 10 with a p-value of 0.3. What this means is that the number of employees in women/equally-led SMEs increased by 10, but there was no statistical significance to show that the increase was because of exportation.

The DiD coefficient for male-led Scottish SMEs who exported in 2018 was 32 with a p-value of 0.07. This implies that the number of employees in male-led SME exporters increased with statistical significance to show it was because of exportation. The DiD coefficient for UK male-led SMEs who exported in 2018 was about 12 with a p-value of 0.09.

In 2019, the DiD coefficient for women/equally-led SMEs that exported in 2018 was 4 with a p-value of 0.8. This again means that there was no significant impact of the exportation in 2018 on their employee number 2019. The Scottish male-led SMEs had a DiD coefficient of 36 with a p-value of 0.1. This again implies that there is a marginally statistically significant impact of the 2018 exportation on the number of employees. The DiD coefficient for UK male-led SMEs two years after exporting was 7, however, this is not statistically significant.

Overall, any increase in employment numbers for women-led and equally led SMEs post-exporting cannot be solely attributed to exporting alone. This study cannot draw conclusions on the reasons for this. There is a likely interaction effect with other business activities (innovation, new local market entry, marketing etc.) that could explain this.

### **4.1.3 The economic case for closing the gender gap**

The proportion of SMEs that are women-led is historically lower than male-led figures<sup>3</sup>. Therefore, there are less women-led businesses as a starting point in Scotland. Considering the proportion of women-led SMEs in Scotland who export is also lower than the proportion of male-led SMEs in Scotland who export this represents a double gender gap. As well as closing the gender gap in regard to increasing the number of women-led SMEs, increasing the proportion of these women-led SMEs who export can also generate economic benefits to Scotland.

#### **4.1.3.1 What impact can be achieved if women-led Scottish SMEs export at the same rate as male-led Scottish SMEs?**

If a similar proportion of women-led Scottish SMEs exported as male-led SMEs it could potentially increase total turnover generated by SMEs by between £2.1 and £6.35 billion over one year<sup>4</sup>.

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<sup>3</sup> In 2022, this figure was 22% compared to 42% male-led, while in 2018 this figure was 15% compared to 45% entirely women-led.

<sup>4</sup> Note that these figures do not calculate Gross Value Added (GVA) as we do not have figures for input, rather they represent outputs in relation to SME turnover.

We base this calculation on the number of SMEs in Scotland in 2018, our baseline year for calculating the impact of exporting on turnover, where 14% of those were women-led:

Total SMEs Scotland 2018<sup>5</sup> = 343,535  
Total women-led SMEs Scotland in 2018 (14%) = 48,095

In 2018 the difference in the proportion of male-led SMEs who exported was 6% higher than women-led SMEs. Therefore, we calculate the potential increase in the number of women-led SMEs by 6%. This would equate to an additional 2,886 women-led SME exporters.

Total women-led SMEs Scotland in 2018 = 48,095  
If 6% more women-led SMEs exported to equal the rate of male-led SMEs = 2,886

We then multiply this by the anticipated increase in sales turnover one year after exporting from our CDID calculation, which was about £2,200,000. This would equate to a potential turnover increase of £6,349,200,000 collectively.

If 6% more exported = 2,886  
@ £2,200,000 turnover increase = £6,349,200,000

We also calculate a bottom-line scenario based on the lowest difference in the proportion of women-led SMEs exporting compared to male-led SMEs exporting, which is 2% in both 2019 and 2022. If 2% more women-led SMEs exported this would equate to an additional 962 SMEs exporting, with a turnover increase of £2,200,000, resulting in a collective turnover increase of £2,116,400,000.

If 2% more women-led SMEs exported = 962  
@ £2,200,000 turnover increase = £2,116,400,000

If a similar proportion of women-led Scottish SMEs exported as male-led SMEs it could potentially increase total turnover generated by SMEs by between £3.4 and £10.35 billion into the Scottish economy over two years<sup>6</sup>. This is based on the same calculation as above using our CDID calculation which showed increase in sales turnover two years after exporting was about £3,600,000.

Total SMEs Scotland 2028<sup>7</sup> = 343,535  
Total women-led SMEs Scotland (14%) = 48,095

If 2% more women-led SMEs exported = 962  
@ £3,600,000 turnover increase = £3,463,200,000

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<sup>5</sup> Figures provided from Business in Scotland: 2018 – available from: <https://www.gov.scot/publications/businesses-in-scotland-2018/pages/key-facts/>

<sup>6</sup> Note that these figures do not calculate Gross Value Added (GVA) as we do not have figures for input, rather they represent outputs in relation to SME turnover.

<sup>7</sup> Figures provided from Business in Scotland: 2018 – available from: <https://www.gov.scot/publications/businesses-in-scotland-2018/pages/key-facts/>

If 6% more women-led SMEs exported = 2,886  
@ £3,600,000 turnover increase = £10,389,600,000

It is important to note that these calculations are simplistic and indicative. They do not consider how the economy would be impacted by an increase in the share of SMEs exporting – such as compositional or any spillover effects.

#### **4.1.3.2 What other economic impacts might be expected?**

After exporting women-led SMEs also increase the number of employees they have by an estimated 10, although this cannot be attributed to exporting itself. This is likely in tandem with other value-generating activities, such as innovation, or home-market expansion.

Women-led Scottish SME exporters generally have a higher turnover figure than non-exporter counterparts, which is achieved with a lower number of employees. Although not a typical measure of productivity, outputs (turnover) are achieved with lower inputs (employment) indicating that these firms are also more productive.

Given the key findings from the quantitative analysis, we now move to the findings from the qualitative analysis of understanding women exporting (or not) in Scotland.

## 4.2 Qualitative findings

### 4.2.1 Women exporters

Sixteen women exporters of products and services were interviewed to capture their insights about their internationalisation process. They belonged to industries such as manufacturing, consultancy services, retail, personal care, media production services, technology, education, and health. The participants reported challenges and opportunities to expand abroad and mentioned the most valuable support provision that has brought them benefits. They also highlighted the current support required to continue growing internationally. The main difference for women exporting products and services was that exporters of services reported they had more flexibility to decide where to be located physically to deliver their services. For example, one woman decided to provide her film services abroad to avoid issues with customs when importing camera equipment and custom designs from the European Union to film in Scotland. Another difference is that women who exported services said they needed to build their reputation and experience to be competitive in the global market, rather than competing with specific attributes of the product, such as materials that are recognised for being autochthonous to Scotland, like tweed. Therefore, they emphasised the importance of having international hubs that represent the country which offers physical space to build trust with local potential customers.

It was a commonality that women from all sectors mentioned they needed more support to understand the local regulations and contractual specifications for exporting to a specific country. However, women exporting products highlighted that they needed more support both before and after exporting to understand and manage international logistics (e.g., transport, Incoterms, pricing and taxes, regulations, and customs). Although women exporting both products and services mentioned that Brexit has been an obstacle to international growth, women exporting products have been more affected due to customs restrictions and higher taxes on their products. Lack of information about the target market was also a barrier for exporters of products.

Given the data collected and analysed, the following four themes were identified for women entrepreneurs who were exporting: (1) challenges to export, (2) support provision, (3) support to grow internationally, and (4) opportunities to grow (illustrative quotes can be found in Appendix 7). The first theme highlighted that woman recurrently reported a lack of awareness in finding the right support. This was specifically attributed to the lack of integration of services provided by local institutions. Under this theme, they also mentioned Brexit as an obstacle to exporting to the European Union, difficulties in obtaining finance for growth, and a lack of information before entering a target market. Two important barriers emerged particularly for women: gender stereotypes and caring responsibilities. Women reported experiencing unconscious bias when receiving support or negotiating with men in certain cultures. Although women want to grow their businesses, they find it difficult to travel for business abroad when they have caring responsibilities at home.

The second theme that emerged was support provision. All women reported having participated in or having received assistance with networking, funding and

investment, training, acceleration programmes and growth, business advice and mentoring, and support from international hubs. Women highlighted the importance of having a mentor who supports them with their inquiries when they are trying to internationalise. The third theme was support for international growth. Women exporters would like to gain access to high-quality connections and networks, receive more funding to grow abroad, and participate in trade missions and fairs. Furthermore, they would like to receive more support for legal and regulatory advice specific to each country and have greater awareness and integration of services and support programmes. In this theme, the women emphasised the importance of having support focused on women, such as short and virtual courses and networking events with other women to learn from their experiences in exporting. All women reported their ambitions to continue growing. The final theme that emerged was opportunities to grow. Women exporters highlighted three main opportunities to expand their businesses further: market diversification, exploring new potential markets, and digitalisation. It was interesting that some women said that, as Scotland is a small market, internationalisation should be seen as an organic process to grow.

#### **4.2.1.1 Challenges to export**

The participants reported numerous challenges they faced when trying to expand into international markets which included:

- The lack of awareness to find the right support emerged in many conversations. Most of the women exporters we spoke to found it difficult to receive the right information to apply for funding or navigate the system for local support. This constraint was mainly observed among less experienced exporters, but even women with more experience highlighted that they had encountered or were facing similar issues. For some participants, this could be attributed to a lack of interaction with local support facilitators.
- Some participants also perceived a lack of information and nepotism when applying for certain funding applications. This is because some of the women felt there are some entrepreneurs who know about the grants in advance given their networks (through friends and family working in the support ecosystem), making it more difficult for others to participate.
- Brexit has also been a significant obstacle, not only for the women exporting but also their service providers. Many of them halted their sales to Europe, while others reported a decline in their sales to this market. This was because their product prices increased, making them unable to compete in the European market. This could be explained because there are more women involved in sectors that were highly affected by Brexit, such as cosmetics, clothing, and textiles.
- European customs have also been problematic for exporters after Brexit. The participants explained that it has been difficult to gain clarity about the changing regulations and local adaptations they need to be able to export after Brexit.
- Another challenge for growing exports was finance. This obstacle was attributed to a lack of resources such as workforce capital, equipment investment, and cash flow for responding to large customer demands. Women

also reported they perceive to have more difficulty in accessing funding and raising investment than their male counterparts. They attributed this to unconscious bias and gender inequality due to women are considered as “less capable of managing finance” because of their family responsibilities. Some women mentioned that often ethnic minorities in the UK also have higher pressures for taking care of their families because of their cultural backgrounds. Thus, these factors affected their confidence when they were applying for funding.

- Women emphasised that a major challenge for expanding abroad is the lack of information about the target market. They are finding it difficult to understand the logistics, local regulations, labelling adaptations, data for pricing their products and services, terms of negotiation, and potential customer information.
- Logistics and regulation of the markets have challenged exporting because the women entrepreneurs feel they do not have in-depth knowledge to deal with these processes.
- Specifically for women exporting, two main challenges were highlighted by the participants. First, they noticed unconscious biases from men when they negotiate or deliver their products and services in cultures with high levels of gender inequality. This prevents them from doing business in certain markets. For example, a woman reported that she could not travel to the Middle East to provide her services because this was not well perceived by men in this region. Second, women exporters also consider that caring responsibilities is an issue for international travel to look for business opportunities. They found that it was less flexible for woman to travel considering they had to arrange their caring responsibilities before going abroad.



**Lack of awareness to find the right support**  
 → Lack of interaction  
 → Perception of nepotism



**Target market disinformation**  
 → A lack of knowledge in logistics and regulation



**Brexit**  
 → Product price increased  
 → Customs barriers



**Caring responsibilities**  
 → Lack of flexibility for travelling abroad



**Access to finance**  
 → Lack of resources (labour, capital, equipment)  
 → Gender inequality and unconscious bias to access to funding

**Gender stereotypes**  
 → Negative perception to access to funding

#### 4.2.1.2 Support provision

In general, women exporters provided positive feedback about the current support provisions offered by the local and international institutions such as Scottish Enterprise, Scottish Development International, Business Gateway, Royal Bank of Scotland, Bank of China, Department of Business and Trade (DBT), British Business Bank, CivTech Scotland, Entrepreneurial Spark, University of Dundee, University of Strathclyde, Scottish Chamber of Commerce, and British High Commissions.

They mentioned having access to various resources and assistance programmes that have been beneficial for their businesses. They received different types of support:

- Networking events promoted by the local agencies have been important to get funding and investment for their businesses.
- Most of the women mentioned that support for participating in international trade missions was crucial to expanding into other markets. They have been able to access potential customers and close business deals during these international events.
- Most of the women have received funding and investment in early stages, some others for growing their businesses.
- Some women have accessed training, accelerators, and growth programmes for exporting. Most of the women mentioned they were involved in these activities in the early stages of their businesses.
- The universities have also been good allies to support women in their process to grow their businesses abroad.
- Business advice and mentoring was personalised which has been crucial for women who were starting to export or seeking access to a new market. Women felt they were supported, and they could ask specific questions according to their challenges and opportunities. Having an account manager also helped them to generate potential contacts in international markets.
- Women who had more experience exporting, reported they have hugely benefited from these international hubs via banks or Scottish agencies. They have gained credibility with their potential international customers by scheduling meetings in the offices of these hubs and their bank branches abroad.



**Networking opportunities**  
→ Important to get funding & investment



**Business advice & mentoring**  
→ Personalised mentoring to entering new markets



**Funding & investment**  
→ International trade missions to access potential customers



**International hubs**  
→ To generate credibility with potential international customers



**Training & acceleration programmes**  
→ Support to grow

#### 4.2.1.3 Support required to grow internationally

The participants mentioned numerous types of support they required to continue growing and expanding their sales in international markets:

- Women reported that one of their biggest challenges for navigating the local support system was a lack of awareness about the availability of the local support programmes. Thus, several women stated they would like to have more awareness and integration of services and support programmes specifically to export. This request is not specific to women but it was reported by them as a challenge and is a factor that could enhance the transparency and agility of the current support system.
- Some of them mentioned that having appropriate communication and information would help them to navigate the system. For example, they said they would like to receive “advance warning” of events and funding calls to have more time to organise the documentation needed to apply for these activities. Women feel the information is fragmented due to all activities and events organised and offered by different institutions. They would like to see centralisation and integration of these services to easily access the support aimed at helping women export. Another aspect that was highlighted is to simplify the access to information to participate in the activities promoted by the different agencies in the ecosystem.
- Women exporters are also looking for high-quality connections and networking events. These actions could facilitate access to funding and investment and help them gain new customers overseas. Women highlighted the importance of having a network with stakeholders who are part of the export process.
- Most of the participants mentioned their need for funding and investment. Many of them reported they would like to receive funding for participating in trade shows and international exhibitions to enable them to continue growing.
- Mentoring and advisory services was another type of support required for women exporters. Specifically, they would like to learn about legal issues and specific regulations for better understanding their target markets.
- Women exporters emphasised that after Brexit it would be beneficial to receive support to continue exporting to European countries. Specifically, personalised mentoring to understand the local norms and regulations of the countries they would like to export to.
- Participants also expressed they would like tailored support for women such as short training courses, webinars and events specialised to help them to navigate the export requirements. For instance, women starting to export would like to have events where they can interact with other women who have more experience exporting. This could be explained because they would like to gain confidence by seeing other women who have been able to successfully export. They also feel more comfortable asking questions to other women who have similar difficulties and personal responsibilities.



**Awareness & integration of services / support programmes**

- Ensure transparency and agility
- Simplify info and communication



**Support focused on women**

- Events only for women
- Short & virtual training programmes



**Funding**

- Financial support to export
- International trade shows



**Good quality connections & networks**



**Legal and regulatory advice specific to each country**

- Legal issues (e.g., origin norms)
- Logistics (e.g., pricing, taxes, transport)

#### 4.2.1.4 Opportunities to grow

Women also reflected about those opportunities they considered to have been important to grow and continue expanding overseas:

- Regarding market diversification, some women highlighted that the market size of Scotland is very small which reduces their opportunities to grow. Therefore, they need to diversify their exports to other markets in the early stages. Market diversification has also been an option when women exporters have experienced high-risk selling in only one market.
- Women exporters also reported they would like to access to new potential markets. Several women emphasised they are finding it difficult to export to Europe because of Brexit, they would like to explore opportunities in the United States. They said they found this market attractive due to the size and low language barriers.
- Regarding exports of services, it was explained by some women that the potential markets which they selected were because of possible international associations and their own expertise to run their services abroad.
- Other potential markets mentioned were Canada, Middle East, Nordic countries, and Australia. Despite women finding it difficult to export to the European Union (e.g., Germany and France). They would like to receive more support to understand how to navigate the export requirements in these markets.
- Some women also explained digitalisation was important for them because they can be more agile to respond to their international customers. Therefore, platforms such as Amazon and Etsy have enabled the companies to grow by facilitating the delivery of their products to other markets. Some women explained that social media has been crucial in 'advertising' their products and reach customers globally.



### **Market diversification**

- Mitigation of risk
- Scotland a small market to grow



### **Exploring new potential markets**

- US, Canada, Middle East, Nordic countries, and Australia. Despite women finding it difficult to export to the EU (e.g., Germany and France)



### **Digitalisation**

- Agility and flexibility
- Crucial for advertising their products and services

## **4.2.2 Women non-exporters**

The women who were not exporting came from a wide range of sectors, from media to retail to technology. Although their sectors varied, most of the businesses were in the services industry with only one woman with a product. As we know women are dominantly based in the service, retail, and hospitality sectors, the sample highlighted this with a range of services being offered from consultancy to coaching to marketing. As previously mentioned not all sectors are represented as this would require a larger sample and there are sectors where women are not represented in Scotland e.g. construction. Furthermore, there are services that cannot be exported e.g. catering, where we intentionally did not reach out to women entrepreneurs in these sectors. The women with service-led businesses were mainly based at home, particularly those who were consulting. Furthermore, none of the women interviewed highlighted that they would reject an opportunity to export their services (or goods) if the chance arose for them. However, the sample that we used is strong and provides a basis to draw relevant conclusions that can apply to all sectors.

The businesses also varied in when they started, from the 'oldest' being established in 2008 and 3 businesses being set up this year. There was also a commonality with these businesses employing others: only 2 businesses employed, with both being in the services sector - one employed 4 full-time staff whereas the other employed 4 part-time staff. It should be noted that none of the women who did not have employees wanted to employ staff. There were several reasons for this including, not wanting to manage others, not to grow their business to the extent they, themselves could not solely undertake the requirements/fulfilments of their clients/customers and the flexibility that being the only person in the business allowed them which would change if they had to hire staff.

Given the data collected and analysed, the following four themes were identified for women entrepreneurs who were not exporting: (1) prevailing historical barriers, (2) challenges setting up the business, (3) opportunities to growing and exporting and (4) facilitating the next steps (illustrative quotes can be found in Appendix 8). The first theme is no surprise given that the historical barriers have been prevalent for over 30 years and have become more exacerbated since COVID-19. These barriers include the lack of access to finance (to start-up and grow), networking (where

events and times are not suitable for women) and the social and cultural issues where women are the primary carers for family (and have little support in starting or growing their business which allows them to manage their family alongside their business). The second theme that emerged was the challenges the women faced in setting up their business, such as the lack of support for women (especially in the service sectors), the confusing landscape of support available and the enterprise agencies who lacked adequate support. The third theme refers to the women highlighting the opportunities for them to grow and export their service or product. Although the women wanted to grow and expand their business, they did not necessarily want to employ people. Rather they wanted to grow in terms of income and market share (internationally) if the opportunity arose and if they had access to the right information at the right time. The final theme from the analysis was the women exploring how their support needs for their business to internationalise could be met. They would need a holistic support system (one where they are not going from agency to agency collecting snippets of information) and access to more knowledgeable business advisors on matters such as regulations, tax issues etc. of exporting.

#### **4.2.2.1 Prevailing historical barriers**

We know that the challenges women entrepreneurs faced were amplified during the pandemic and the main challenges continue being focussed around the historically reported barriers for women like access to finance, networking and social and cultural barriers (for example, childcare and working from home) (Arshed, 2021):

- Many of the women who were interviewed started their business because of their disillusionment with employment. They were not looking to employ or grow in the short-term as their main concern was to start and build a business for themselves to ensure financial income and some stability. Discussions of 'being pushed out' or 'being bullied' or a 'job ended' pushed them into self-employment.
- Further to the historical barriers, women spoke of the cultural norms not being acceptable in that they had caring responsibilities.
- Others became self-employed because of the breaks in their careers given their caring responsibilities.
- The lack of access to finance across the varying sectors in supporting women in their businesses was one of the key deterrents for the women exporting.
- There was also a lack of meeting women in similar positions through support agencies. Many of the women were disillusioned with the ESOs because of their lack of bringing together a community of women exporting to support one another.

#### **4.2.2.2 Challenges facing support**

The challenges come as no surprise, as previously mentioned the historical barriers that women entrepreneurs have faced continue. It has been argued in previous studies that women who are growing their business, often receive 'better' support or do not want women-specific support compared to those women in the early stages or those who are not planning (in the short-term at least) to grow (Arshed et al., 2023):

- Many of the women were of the view that they were not given the support they required to start or grow their business when the time came.
- They often felt they were undermined by enterprise support agencies because of their business idea/growth opportunity, which was often service oriented and homebased, this meant that they were not supported in the right way or encouraged to take their business idea/growth opportunity further.
- There was a consensus amongst the women that the entrepreneurial landscape for support was confusing and overwhelming.

#### **4.2.2.3 Opportunities for growth and exporting**

Although we know women-led business grow slower than their male counterparts because of the sector that their business is in or because of internal or external constraints women face, the analysis highlighted that many of the women were looking to grow, albeit at a slower pace because of their personal preference and values:

- Many of the women wanted to grow and eventually internationalise but they did not necessarily want to employ people because they did not want to manage others and wanted to grow organically at their own pace.
- There was a strong emphasis amongst the women interviewed that they firstly become established in Scotland before they started to export (regardless of sector or product/service).
- There was also hesitation about exporting because of the laws and regulations surrounding exporting and internationalisation but none of the women would actively ignore or avoid the opportunity of exporting if they had a chance to do so.

#### **4.2.2.4 The support requested to achieve growth and exporting**

There were several suggestions from the interviewees themselves to help women who were not yet exporting to support them in growth and lead them to internationalise their products or service because they felt the current support provision was not adequate:

- Sustainable support – to ensure holistic support that is provided throughout rather than in stages or ad hoc.
- Easy access and easy to navigate information online and with business advisors.
- Business advisors understanding and being knowledgeable about the current economic landscape of exporting re. Brexit and COVID.
- Support with finance and tax for internationalising their businesses.

#### **4.2.3 Enterprise support organisations**

Enterprise support organisations reported several barriers and challenges for women-led SMEs to engage with their services and programmes. Typically, ESOs supported women in a limited number of export sectors and many of these sectors had common challenges. They identified some specific needs that women-led SMEs

have from support and opportunities for development which differed to male-led SMEs. However, they also identified shared challenges faced by all SMEs. Across these interviews it was apparent that the types of challenges faced and needs identified were specific to the different stages of business development – pre-growth, early growth, and growth (Table 8), rather than the types of sectors.

**Table 8: Summary of ESOs interview findings**

	<b>Pre-growth</b>	<b>Early growth</b>	<b>Growth</b>
Barriers and challenges to support	<ul style="list-style-type: none"> <li>• Poor awareness and perception of exporting</li> </ul>	<ul style="list-style-type: none"> <li>• Selection criteria for support targets specific markets and sectors</li> <li>• Cultural barriers to trade</li> </ul>	<ul style="list-style-type: none"> <li>• Skills and resources.</li> <li>• Access to international networks</li> </ul>
Support needs and opportunities	<ul style="list-style-type: none"> <li>• Showcasing and promotion of women exporter role models</li> <li>• Basic advice and information about e-commerce</li> </ul>	<ul style="list-style-type: none"> <li>• Coaching and advice support.</li> <li>• Flexibility in service delivery through online provision</li> </ul>	<ul style="list-style-type: none"> <li>• Support service integration</li> <li>• Gender-aware targeting</li> </ul>

#### **4.2.3.1 Pre-growth**

Stakeholders described several key challenges at the pre-growth stage, including:

- A lack of awareness and a negative perception of exporting amongst smaller and newer business leaders. This was expressed as a greater issue for female founders and women-led business owners who generally had lower feelings of efficacy and belonging.
- Negative perceptions of exporting were related to wider negative perceptions about general business growth. ESOs identified a lack of awareness and promotion about the benefits and opportunities for growth as missing from the current support at the pre-growth stage.

The stakeholders also identified several opportunities for developing the existing support to meet the needs of pre-growth women-led business owners, including:

- Doing more to promote the awareness of exporting to wider audiences, particularly those starting out or pre-growth. Having a greater number of role models and showcasing success stories was highlighted as being important. This was with a view of increasing the overall pool of growth businesses to consider exporting and be available for more advanced support that already exists.
- Basic advice and information for the earliest business stage was also viewed to be missing from existing pre-growth support but could equip women with basic knowledge and understanding that could inform existing perceptions.

- In particular, ESOs frequently expressed opportunities regarding e-commerce and reaching wider markets through social media marketing and selling on online platforms.

#### **4.2.3.2 Early growth**

Stakeholders described two key challenges at the early-growth stage, including:

- Women-led SMEs in the early-stage of growth often did not meet the criteria for access to support. Public sector agencies generally had criteria for supporting specific target sectors that were male dominated, thus unintentionally excluding women from receiving support. It also acted to discourage them from attempting to apply for specific support programmes. This was also acknowledged as impeding opportunities for exporting, specifically for women, but also in general for Scottish SMEs.
- Cultural barriers, such as how women in business are viewed in certain countries, were also a challenge for women attempting to access new export markets. This was typically the case when engaging with ESOs that organised trade missions. Other cultural barriers restricting participation in trade missions was caring responsibilities.

Opportunities were emphasised as having the potential to alleviate some of these problems:

- Cultural, as well as technical, training and advice was beneficial to women starting on the export journey, alleviating them of concerns that they may have around business etiquette.
- Providing a supportive space with peers for participating in trade missions was key so that women did not feel isolated.
- Having online trade missions and training opportunities was identified as an opportunity for more women to participate in support, especially those with caring responsibilities.
- Again, e-commerce opportunities and using digital online sales platforms was touted as providing opportunities for women to grow internationally. This was seen as an opportunity for early growth for women located in specific sectors that were not the primary focus of support organisations.

#### **4.2.3.3 Growth**

Stakeholders described two key challenges at the growth stage, including:

- The main challenge at this stage for women-led growth SMEs was accessing skills and resources to facilitate export. Committing to participate in a trade mission would incur a short-term cost, and although the ESO reported the return on investment for participation was exceedingly high, the initial cost inhibited participation. There was a strong link with regards to the gender finance gap and accessing investment to pursue export opportunities. This was, in general, linked to wider challenges faced when scaling-up, including developing production capabilities. It also included developing skills to

understand international trade regulations and how this implicated their businesses. Developing these skills and knowledge took resource commitments.

- Another challenge that women-led SMEs need further support with is access into networks that enable international trade. Generally, women are less likely to participate in growth-orientated and international business networks that can help forge connections with companies in foreign markets.

The main opportunities for advancing these challenges at the growth stage include:

- Ensuring that business support services were joined-up so that women-led business owners had greater access to opportunities. Each ESO stated that there needed to be a joined-up approach between organisations to warrant a pipeline of support for women-led SMEs to ensure that they had access to growth support and participation in trade missions.
- Ensuring that organisations that supported growth SMEs were gender-aware would be helpful in encouraging more women into their services. For example, ensuring that messaging and promotion was reaching diverse organisations was considered key. Another example of gender-awareness was through non-gender specific ESOs working with gender-specific ESOs as gatekeepers, to access women-led SMEs and encourage them to participate.

#### **4.2.4 Limitations of the qualitative data collection**

It is important that we highlight the limitations of the qualitative data collection and analysis. Firstly, qualitative data is often not generalisable as it cannot be generalised from the study's sample to the entire Scottish business population. However, the qualitative sample size in the study is large enough to allow the unfolding of nuances and rich information to highlight 'new and richly textured understanding' of the phenomenon under study. Furthermore, the study included a diverse sample of women-led businesses in Scotland and we employed in-depth interviews which enhanced the richness and generalisability of the results. Secondly, not all sectors are represented as this would require a larger sample and there are sectors where women are not represented in Scotland e.g. construction. Furthermore, there are services that cannot be exported e.g. catering, where we intentionally did not reach out to women entrepreneurs in these sectors. However, given the sample and the spread of sectors included, we are confident that the challenges identified were common across the sectors and therefore the sectors included are sufficient to draw conclusions.

## **5. Policy recommendations**

Based on the evidence from data collected for the report, there are several ways for the Scottish Government to address the gender gap in exporting which will foster gender equality, help close gender wage gaps, and contribute to not only economic growth but also more inclusive economic growth. We propose that the Scottish Government undertake further investigation with women exporters (and those who have previously exported and those who wish to do so in the future) to understand their needs and how to meet them. For example, work needs to be done with women across varying sectors to help them understand the exporting landscape in Scotland.

Opportunities for increasing the number of women-led SME exporters in Scotland are related to the current growth barriers that are historically recognised, such as accessing finance, networks, and support. Specific recommendations for women-led SMEs in Scotland that can reduce barriers and increase opportunities to exporting include:

### **1. Running an export awareness campaign for women-led SMEs**

A promotional and awareness campaign can showcase women exporters within the current enterprise support ecosystem events. Working with current partners such as Investing Women and Scottish Chambers of Commerce to provide relevant and reliable role models can increase awareness of export opportunities amongst the wider business base. Examples of women exporters conducting business from diverse markets and sectors are important to highlight that it can be achievable for all SMEs. The export campaign to generate awareness could be an annual event that integrates all stakeholders of the exporting process. This event could feature stands and speakers discussing the services and support they offer at each stage of the export process (e.g., logistic and shipping companies, banks, successful women exporters presenting their case studies, Scottish Enterprise, Scottish Development International, Scottish Chambers of Commerce, investors, accelerators, universities, etc.). This could provide transparency for entrepreneurs about the existing support and planned activities focused on exporting each year.

### **2. Providing a foundation programme of training and information on e-commerce for women-led SMEs**

Providing training on the foundations for exporting products and services, platform sales, and social media marketing as a core offering can increase exposure to export opportunities and provide basic information as an initial step for women entrepreneurs. Piecemeal advice and support exists in Scotland, so avoiding duplication and ensuring that all business in Scotland have access to this is key. For example, a set programme delivered through Business Gateway's Digital Boost, specifically for women-led businesses, would ensure a coherent and accessible offering of training such as (but not limited to) training in logistics, negotiation terms, pricing regulation and legal aspects to export. There should also be further information and training

regarding the negative impact that SMEs have faced because of Brexit which could create information packs regarding trading in EU, regulations, market opportunities, tax implications etc. for women-led businesses.

### **3. Providing a programme of trade missions for women-led SMEs**

This would involve three strands. Firstly, to introduce virtual trade missions which represent a cost and time effective way for women to begin to export, get to know international markets, and meet other business owners also considering export. They can be a steppingstone for joining physical trade missions. Existing ESOs, such as Investing Women and Scottish Africa Business Association, have had success delivering virtual missions. It is important to have a sector specific (e.g. retail, technology, manufacturing, health etc.) focus when organising these missions, but not exclude the potential from non-priority markets.

Secondly, expanding the current programme of women's trade missions. There are currently very few women-only SME trade missions in Scotland. Increasing the programme of these missions to wider markets and diverse sectors would help women to access export markets. Partnering with current organisations that organise trade missions, such as the Scottish Chambers of Commerce, and organisations that run gender-specific trade missions, such as Investing Women, is the best route to this.

Finally, improving women's participation in current trade missions through cohort mentors. Organisations like Scottish Chambers of Commerce and Scottish Development International run trade missions in various markets which report strong returns on investment for SMEs. Having a better representation of women-led SMEs would be beneficial to these trade missions. Having an experienced women founder as a mentor to guide a cohort of women on a trade mission would enable this and encourage greater participation.

### **4. Expanding existing export advisory services to cover all of Scotland for women entrepreneurs**

Current services such as Highlands & Islands Export Advisory Service help SMEs plan to export and help to connect business to other programmes. Ensuring that these services are available across Scotland is key, specifically ensuring that they are available to women-led businesses. Considering the economic potential of exporting, these services should not be exclusive of specific sectors and markets and target SMEs with smaller turnover than generally currently looked at as exporting can be a trigger for early growth.

### **5. Increasing the international exposure of women's networks**

Having Scottish representation in women's international networks, such as International Women's Entrepreneurial Challenge (IWEC) Foundation, can improve the connections of Scottish women-led SMEs. Funding existing organisations initial membership and cohorts of women to participate in

international conferences and missions can improve access to markets. Consider hosting the IWECC conference in Scotland to boost awareness of exporting, promote women's enterprise, and provide international networking opportunities.

Partnering with women specific networks in countries, such as the Women's Business Centre in the United States, the Women's Enterprise Initiative in Canada, the West Africa Women in Energy network in West Africa offer important opportunities for Scotland. There are also organisations in the current enterprise support ecosystem that have access to these international networks.

## **6. Providing adequate finance and promoting financial literacy for women entrepreneurs**

Tackling the barriers in access to credit and equity in export finance by introducing a programme which addresses underfunding faced by women by providing equity capital to support growth in global markets. Alongside this, would be the support to promote financial literacy through working with financial institutions to raise awareness and educate women entrepreneurs.

## **7. Investigating the links between exporting and productivity for both men and women-led SMES**

SMEs who export in Scotland generate a higher turnover with a seemingly lower proportion of employees compared to non-exporters. This indicates that productivity in SME exporters is higher. Further research is needed to explore the links between exporting and business productivity to confirm and explain this.

## **8. Collating gender-segregated data for exporting in Scotland**

Gender segregated data in self-employment and entrepreneurship has always been an issue but understanding what determines trade participation helps to ascertain how well gender equality and women's empowerment is achieved, and whether the underlying conditions allow women and men to participate in trade equally and fully in Scotland. In 2018, United Nations Conference on Trade and Development developed a conceptual framework for gender-in-trade statistics. The framework aims to help policymakers identify the key issues relevant to gender and international trade measurement and support national statistical offices to review existing data. The framework considers four elements:

1. preconditions for the participation of women and men in trade: motivations, aspirations, resources, and constraints (this information could be pulled from the Global Entrepreneurship Monitor which is country specific and also via a large-scale qualitative/quantitative scaling study);

2. outcomes reflecting the degree of involvement and roles of women and men in trade (a large-scale study would be required to capture the elements of this);
3. impacts including the effects of trade on employment, division of labour, income, empowerment, and wellbeing (there is the UK LSBS, the Office of National Statistics and the Export Performance Monitor (albeit this is fairly outdated with a 3-year lag) data available to begin the building of a national database); and
4. trade policy and other government interventions that may influence gender equality (the information is already being compiled at various levels re. entrepreneurial ecosystem by different agencies such as Scottish Enterprise, Interface etc. but this would be collated via secondary data collection). This could be adapted by the Scottish Government to collect data evidencing how women and men participate in international trade and how trade affects them.

This recommendation could be undertaken by using the framework as a boiler template for the Scottish context. This would require a Scotland-wide study to collate and combine the information e.g., pre-conditions with the current available data like employment. Furthermore, there is data available to the Scottish Government from the agencies who are part or fully-funded by the Scottish Government, but this would require a breakdown of gender of the compiled information e.g. how many attended the webinar on exporting to USA – is there a breakdown of how many women attended the webinar?

## **9. A mapping exercise of exporting support initiatives to be undertaken**

A mapping exercise of the currently available support initiatives, policies, mechanisms and funding on both the wider support ecosystem and then specifically exporting would be a way of analysing internationalisation/exporting (between men and women). It would focus on areas of support with the potential for development. This recommendation would need to be undertaken in collaboration with the ESOs who offer exporting/internationalisation support and advice. A starting point would be to collaborate with Scottish Enterprise who collates an entrepreneurial ecosystem guide every year. This exercise would also provide some of the information and data needed to support Recommendation 8.

## **10. Aligning policy priorities for women-led SMEs**

The policy recommendations can be met by aligning exporting support with the Women's Business Centre, which was announced by the then First Minister, Nicola Sturgeon (Sturgeon, 2021), and with the Pathways Report (Stewart & Logan, 2023) to undertake several recommendations derived from the data. Furthermore, the recommendations align with the National Economic Transformation Strategy (Scottish Government, 2022a) where the Women's Business Centre and the Women in Enterprise Framework are key to the "Entrepreneurial People and Culture" strand alongside the Scottish Government's "A Trading Nation export growth plan" (Scottish Government, 2022b). This can be done by bringing together the Directorate for Economic

Development and the Directorate for International Trade & Investment to work together, share data and to align their policy priorities to meet the key criteria of increasing and growing women-led businesses.

## 6. Conclusion

The aims of the research were to develop an economic case for addressing a known gender export gap in Scotland and to understand what the most effective avenues to address this gender export gap could potentially be and how they could be implemented. Based on the research, this report provides evidence of a gender gap in exporting in Scotland. Women are much less involved in exporting than men and the evidence (both quantitative and qualitative) show that women in Scotland are still lagging behind their male counterparts when it comes not only to starting and growing their businesses, but also in exporting their products and services. We know that exporting is a major driver of economic growth, with those exporting earning higher profits, paying higher wages, and growing faster than non-exporting firms, but women are less likely to engage in international trade, leaving them unable to capitalise on such benefits. With more women exporting this impacts the wider economy in terms of increasing revenue and foreign exchange, more jobs, a competitive environment and fostering economic trade with other countries. Based on the evidence from data, there are several ways for Scottish Government to address the needs of women who are both exporting and seeking to internationalise in the future. The policy recommendations outlined can support in reducing barriers and increasing opportunities in exporting.

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## Appendix 1: Scoping Review methodological approach

To form understanding of what is known about the drivers and barriers to exporting for women-led SMEs a scoping review of the existing academic literature was conducted. The research team utilised systematic searches (Table A1) to identify relevant literature. The goal of the scoping review was to provide an indication of what the existing evidence illustrates. The team utilised the Scopus® database to facilitate the systematic searches.

**Table A1: Summary of search terms used on Scopus**

Date	Search term	Filters	Search results	Yield for final review
12/04/2024	"women" AND "enterprise" AND "export"	Limited to "Business, Management and Accounting"; limited to "Social Sciences"; limited to "journal"; limited between 2004 - 2024	61	7
13/04/2024	"women" AND "enterprise" AND "challenge" OR "barrier" OR "driver"	Limited to "Business, Management and Accounting"; limited to "Social Sciences"; limited to "journal"; limited between 2004 - 2024	419	17
14/04/2024	"export" AND "SME" AND "challenge" OR "barrier" OR "driver"	Limited to "Business, Management and Accounting"; limited to "Social Sciences"; limited to "journal";	87	20

		limited between 2004 - 2024		
15/04/2024	"SME" AND "Internationalization" OR "Internationalisation" AND "Women" AND "Challenge" OR "Driver" OR "Barrier"	Limited to "Business, Management and Accounting"; limited to "Social Sciences"; limited to "journal"; limited between 2004 - 2024	3	1
15/04/2024	"SME" AND "Internationalization" OR "Internationalisation" AND "Women"	Limited to "Business, Management and Accounting"; limited to "Social Sciences"; limited to "journal"; limited between 2004 - 2024	5	1

Using various keyword searches to capture existing knowledge on barriers and drivers to exporting for women-led SMEs it became apparent that the existing academic evidence regarding barriers and drivers to exporting for women-led SMEs was not a frequently studied topic. It was decided, therefore, to include an additional two searches, focusing on the barriers and drivers for business growth for women-led SMEs and the barriers and drivers for exporting for SMEs in general. Several filters were applied to the search criteria to ensure the credibility of the data:

- 1) Only peer-reviewed journal articles were included.
- 2) Journal articles archived in the topics of "Business Management and Accounting" and the "Social Sciences" were included.

After each search each academic article that appeared in the search was reviewed with the key barriers and drivers captured. During this review phase many articles were excluded. Our inclusion/exclusion criteria for articles at this stage included:

- 1) Limiting to empirical studies of a western, developed country context to ensure the contextual similarity with Scotland.
- 2) The exclusion of articles that did not provide evidence into barriers and drivers to exporting or business growth.

This left the research team with 46 academic journal articles. It is important to note that the research team did not conduct an analytical appraisal of the articles but conducting a quick scope of attributed barriers and drivers.

## Appendix 2: List of academic journal articles included in review

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### **Appendix 3: Email to all participants**

Please note each email to participants (women entrepreneurs and ESOs) was slightly changed to reflect their business/organisation.

Dear XXX

I hope you are well. Please let me introduce myself, I am Professor Norin Arshed based at the University of Strathclyde's Business School. Alongside my colleagues, Drs Stephen Knox (University of Stirling) and Carolina Marin Cadavid (University of Strathclyde), I am undertaking a project with the Scottish Government (Directorate for International Trade and Investment) on Gender Export Gap. The desired outcome of this project is to provide evidence on:

1. the economic case for addressing a known gender export gap in Scotland. This economic case could draw on indicators such as increase in GDP, job creation, export increases and other economic indicators and;
2. the most effective avenues to address this gender export gap.

Hence, I am getting in touch with yourself regarding your business/organisation (XXX) and would like to invite you to discuss your views on exporting [to understand the support that your organisation provides for women exporting or looking to export/internationalise]. The Scottish Government would like to understand how we can advise women entrepreneurs who are interested in in delivering effective support and informing policy in Scotland.

I would be grateful if you could spare an hour to have a chat (online), if you are interested in being involved, please let me know.

The discussion will be confidential and anonymous.

If you require further information, please do let me know.

I look forward to hearing from you.

All the best,

Norin

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Director of Research  
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## Appendix 4: Interview protocols

### Interview protocol for women-led SME exporters

Initial information required:

Name	Sector	Products/services	Year business was started	No. of years in business	No. of years exporting	No. of employees
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#### 1. How did you start your business? The following prompts/questions will help:

- Why did you start your business? Saw a market opportunity? Need for income generation? Other?
- Where was the business started – at home? Office space? Incubator?
- What were your biggest obstacles in starting a business? And also what factors were important in getting started?
- How did you determine the sector in which your business would operate? Were there any sectors that you were discouraged from entering?
- Are there any sectors or industries you want to move your business into but are prevented from entering because of lack of knowledge, legal limitations, or for some other reason?

#### 2. Are there a lot of women business owners in your community, or are you a minority? The following prompts/questions will help:

- Are you the only entrepreneur in your household?
- Do you personally know and interact with other women business owners in your community?
- To what do you attribute the current level of entrepreneurship in your community?
- Do you think there has been gender stereotyping from business support services/community/business contacts/family and friends?
- Are women led SMEs more likely to use other women led SMEs in their supply chain, if not why?

#### 3. Were you able to grow your business over the years? If you want to grow your business further, but haven't been able to, why do you think that is? The following prompts/questions will help:

- Are there business associations or chambers of commerce in your community?
- Do you belong to any business associations, chambers of commerce, or boards of directors?
- If so, which one(s)?
- If so, why did you join?
- Are there support organisations you have been involved with and worked with for support, mentoring, coaching etc.?
- Was there access to finance?
- Were there other constraints to growing your business such as time, financial, family responsibilities?

**4. How did you know you wanted to export and how did you do it? The following prompts/questions will help:**

- Was your business slowly/rapidly growing?

**5. What challenges regarding setting up your own business did you face? And for exporting?**

**6. What advice and support did you seek out for starting and exporting?**

**7. What advice and support were you offered? The following prompts/questions will help:**

- Where (if anywhere) did you get such support/advice?
- Where (if anywhere) did you get such support/advice?
- If you received advice and support, how good was it?
- What was missing from the advice and support you received?

**8. What would you like to see happen in women's enterprise support and delivery with respect to supporting more women to export? Why? The following prompts/questions will help:**

- What action could help support deeper professional networks?
- How could export support and promotion be adapted to improve access?
- Are there any actions that can be taken to support access to finance?
- What would help you to navigate export requirements?

**9. What advice and support do you need to be provided locally and what could be provided on a Scotland-wide basis for women looking to export?**

## Interview protocol for women-led SME non-exporters

Initial information required:

Name	Sector	Products/services	No. of years in business	No. of employees
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### 1. How did you start your business? The following prompts/questions will help:

- Why did you start your business? Saw a market opportunity? Need for income generation? Other?
- What were your biggest obstacles in starting a business?
- How did you determine the sector in which your business would operate? Were there any sectors that you were discouraged from entering?
- Are there any sectors or industries you want to move your business into but are prevented from entering because of lack of knowledge, legal limitations, or for some other reason?

### 2. Are there a lot of women business owners in your community, or are you a minority? The following prompts/questions will help:

- Are you the only entrepreneur in your household?
- Do you personally know and interact with other women business owners in your community?
- To what do you attribute the current level of entrepreneurship in your community?

### 3. Were you able to grow your business internationally over the years? If you want to grow your business further, but haven't been able to, why do you think that is? The following prompts/questions will help:

- Are there business associations or chambers of commerce in your community?
- Do you belong to any business associations, chambers of commerce, or boards of directors?
- If so, which one(s)?
- If so, why did you join?
- Could you provide examples of organisations from which you've received support, mentoring, coaching, or similar services to facilitate the export of your products or services?
- What constraints have you experience (and may continue to experience) – finance, time, family etc.?

### 4. Have you ever thought about exporting your goods/services? What are or would be the biggest challenges to doing so?

### 5. What challenges regarding setting up your own business did you face? And for exporting?

- International experience, financial support, institutional support, knowledge, language barriers, export capacity, differentiation, competitive advantages?

### 6. What advice and support did you seek out for exporting your products/services abroad?

**7. What advice and support were you offered? The following prompts/questions will help:**

- Where (if anywhere) did you get such support/advice?
- Where (if anywhere) did you get such support/advice?
- If you received advice and support, how good was it?
- What was missing from the advice and support you received?

**8. What would you like to see happen in women's enterprise support and delivery with respect to supporting more women to export? Why?**

**9. What advice and support do you need to be provided locally and what could be provided on a Scotland-wide basis for women looking to export?**

## Interview protocol for key stakeholders

Initial information required:

<b>Organisation name</b>	<b>Purpose/goal/mission</b>	<b>Beneficiary groups</b>
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1. Does your support agency/organisation have any programmes or policies designed to support women's enterprise participation?
2. Do you track women's participation in the services you offer and how beneficial they perceive your organisations' support?
3. Does your support agency/organisation specific learning opportunities for women related to exporting/internationalisation?
4. Do any of the courses/support offered focus on accessing new, distant markets (i.e., exporting)?
5. What is the single most important action that could be taken to support women in increasing their access to markets?
6. What barriers do you think women face in accessing your support?

## Appendix 5: Case studies

### Case study 1: Alexandra Feechan - FINDRA

#### FINDRA CLOTHING

Alexandra Feechan  
Founder & CEO  
Galashiels

FINDRA



#### Company description

FINDRA Clothing is a founder-led business established in December 2014 by Alex Feechan, a Scottish fashion designer and outdoor enthusiast. Alex Feechan has 25 years of experience designing for high-end luxury fashion brands worldwide. Alex's expertise is an advantage that has allowed her to develop a product with high-quality design, fabric, fit, and style. Her mountain biking weekend adventures in the hills of the Tweed Valley inspired her to create her women's outdoor clothing brand. FINDRA Clothing is an innovative company that designs and retails stylish, versatile, sustainable activewear for women. They contribute to and reinvest in their community and the planet by upholding a sustainable business model and the upcoming FINDRA foundation.

#### Opportunities and challenges to growth

FINDRA clothing has gained a positive reputation through social media, which has allowed online orders from countries all over the world. Support provided by Scottish Enterprise in the start-up phase enabled Alex to attend European Trade shows to get an insight into the market and on a second "learning journey" participate in the Trade Show Euro Bike which proved crucial for their growth and the creation of new business opportunities:

"The travel expenses and hotel costs were all covered as part of the learning journey, which was very helpful and made it possible to visit the event. I had the opportunity to showcase my products and meet with potential buyers and the press. It was a great opportunity to gain feedback before launching the brand and products to market."

Since launching her business in December 2014 Alex has grown online sales year on year seeing a positive increase each year in export sales via their online brand e-commerce platform.

However, Brexit immediately negatively impacted these sales, seeing them stop almost overnight. Issues in getting products directly to the customer, expensive customs charges, risk of returns, and the need for clarity about the new regulations and norms to export. These constraints have shrunk their sales in markets such as Germany, France, and some Scandinavian countries.

## **Exporting information and the future**

FINDRA clothing has continuously grown, broadening its product range while upholding its dedication to slow fashion and creating an inspiring brand and community focused on an active lifestyle. The company's main markets have been Germany, France, Spain, and Scandinavian countries. Alex would like to continue growing in Germany and open opportunities in the Scandinavian markets.

## Case study 2: Poonam Gupta - PG Paper Ltd

### PG PAPER COMPANY LTD

Poonam Gupta  
Chief Executive Officer & Founder  
Greenock



### Company description

PG Paper Company LTD is one of the largest trading companies in Scotland specialising in the paper industry. They offer a variety of papers, including graphical, packaging, and specialty grades, sourced from their partner mills around the globe. The company provides tailored solutions to meet their customers' paper needs through their strategically located warehousing facilities worldwide.

They are focused on win-win negotiations with their partners and customers. Their international experience has allowed them to gain expertise in local markets, develop multilingual skills, and knowledge of the different paper grades they supply. These characteristics have enabled their capabilities to offer innovative products to their customers across different markets.

### Opportunities and challenges to growth

When Poonam arrived in Scotland, she could not secure a job because employers claimed she was overqualified or lacked experience working in the UK. The lack of opportunities for immigrants led her to forge her own path. As a visionary, Poonam delved into recycling and participated in training courses offered by Business Gateway and Scottish Enterprise to learn how to establish her own business. She created a company oriented to export to India without doing any local sales. She said: "I remember I did two courses; one was in logistics and one was in finance which was either conducted by Business Gateway or Scottish Enterprise in Glasgow... That really helped me to understand a little bit more and then I started researching a lot... creating a database of the buyers and the suppliers. And I started cold calling, sending them emails and that's when I think there was an Italian, very large Italian manufacturer. I still do business with them on and off and I got my first deal through them."

In 2005, she encountered a significant challenge in India, which served as a turning point, prompting her to consider diversifying her export markets. She was starting to receive some inquiries from other countries, and she was conducting market research to continue growing internationally. She diversified her sales and expanded into other countries by selling to Pakistan, Bangladesh, Sri Lanka, and China.

### Exporting information and the future

PG Paper Company LTD was established to have a presence in the international market from the very beginning in 2003. It currently operates in over 60 countries, spanning all continents. Its strategic global warehousing facilities allow for flexibility in collecting and delivering products internationally. PG Paper Company Ltd boasts a competitive advantage due to its high levels of logistical competency.

### **Case study 3: Kirsty Lunn - MOLKE**

#### **MOLKE**

Kirsty Lunn  
Founder and Creative Director  
Perthshire



#### **Company description**

Molke is a Scottish manufacturer and retailer of fun, non-wired underwear and swimwear. They believe people of all shapes and sizes deserve to be catered for and have underwear that is comfortable, fits well and supports. They are an ethical, honest and focused on celebrating all bodies. They also pride themselves in offering sustainable products that are designed and made to last. Molke HQ is in Perthshire and the majority of all their products are made in their factory with 20 local employees.

#### **Opportunities and challenges to growth**

The opportunities to manufacture locally and employ local people has been key to the ethos of the business and its growth. MOLKE's local enterprise support agency GrowBiz has been fantastic and been with them from day one. Without GrowBiz Kirsty has argued that although she would have still done what she did because of her passion and drive, she credits GrowBiz in fundamentally helping her every step of the way and is still in touch with the agency.

Growth and internationalisation came with its challenges for Kirsty, such as not being taken seriously when she first started the business and being told that her business was "too niche to be popular." She feels that many men do not understand her business, and this has caused issues in trying to secure support and funding because "when you go for funding it's predominantly men on the board." Being account managed with Scottish Enterprise has been fantastic and helped secure funding, and they are in talks at the moment for funding to internationalise.

Brexit was a huge setback for the organisation since they lost European customers because they did not want to pay taxes. It caused massive increases in their costs, fabric, etc. as they use organic cotton fabric, and you cannot grow cotton in Scotland. MOLKE must import and whilst they manufacture most things themselves, they do rely on some suppliers.

COVID was also a challenge for the company but not as much as they anticipated as they manufacture their own goods. But COVID has led them into scaling up and now actively seeking to enter international markets.

#### **Exporting information and the future**

MOLKE exports across the globe, dominantly the UK but sales in the US and all over the world. There are plans to grow internationally which involves increasing their exports to the US, Canada and Australia. They plan on tripling their international exports in the next 12 months. Kirsty has said: "we've always had customers overseas because the nature of our products and size range, women can't get them anywhere

else...Since COVID actually a lot more people have moved into our market and some big brands have actually attempted to copy us, which I think is flattering, and it's inevitable in the industry, it happens.”

## Case study 4: Marie Owen - LS Productions

### LS PRODUCTIONS

Marie Owen  
Founder & CEO  
Edinburgh



### Company description

LS Productions is a production company recognised with Grammy nominations and BRIT and BAFTA awards in various fields like film & TV, commercials, fashion, and sports campaigns. This company was founded in Scotland in 2006 by Marie Owen at her kitchen table. The company started to grow in 2007 when they launched their first website. LS Productions expanded their service offering and consolidated a sales and marketing team that allowed them to pivot their business in 2013 to commercial production. Then, they expanded locally by opening offices in London and Manchester.

Having produced several TV episodes, including those featuring 'Bear Grylls' and 'The Bachelorette', they shifted their focus to the realm of Film & TV. In 2019, They offered their services for the UK segments in two feature films by Steven Soderbergh: 'The Laundromat' and 'Let Them All Talk.'

### Opportunities and challenges to growth

The major challenges that Marie has faced as CEO of a service company in the creative industry have been capitalising on opportunities to grow and competing with other companies and countries. However, Marie has been successful in running her company due to her reputation and customer centricity. As Karen André (Sales and Marketing Director) said: "Clients will say they can tell that this business is run by women because we put a lot of effort into a lot of the little things that make a big difference... That attention, unvalued sometimes, can actually make such a difference to the client experience we've given. I think our returning client stats just now are about 45%, which is huge in our project-based industry."

### Exporting information and the future

Marie started to export organically in 2009. LS Productions currently has international customers in the United States, Canada, France, Germany, China, and Sweden. The company has a solid international marketing strategy to continue growing in markets in Eastern Europe and Malta.

LS Productions aims to continue attracting big brands and companies to Scotland to showcase the country's stunning scenery, support local business communities, and promote Scotland and the UK to the world. This would continue bringing significant benefits to local businesses and the local supply chain involved in LS Productions' projects.

## Case study 5: Shona Young – Nutscene Twines Ltd

**Nutscene Twines Ltd**  
Shona Young  
CEO  
Dundee



### Company description

Nutscene Twines Ltd is a traditional manufacturing company that has been since the early 1920s. They are recognised for producing authentic jute products. The most important business activity has been making twine for the gardens. They are recognised for using ethically sourced materials from sustainable crops. Jute is especially notable for its environmental benefits. It thrives on rainwater, grows rapidly, can be cultivated on wastelands, and enhances soil quality for subsequent crops. Furthermore, it helps reduce CO2 levels.

Shona started in the business as an Office Manager, then took over production, followed by sales, became the General Manager, and at the end she ended up buying the company in 2002.

### Opportunities and challenges to growth

When Nutscene Twines Ltd was bought by Shona, the business was already involved in the international markets such as Ireland, Norway, Sweden, and France. They have historical archives of when the company was trading internationally during the war.

Despite being internationally recognised by larger retailers in the UK market, cheaper imports from China caused them to lose a significant share of the local market. Shona decided to change her brand strategy and pulled out of the big wholesale markets and going direct to retail, working with distributors both locally and internationally. She has always been excited about exporting her products, she said:

“The company was already exporting to places like France, Norway, Sweden, and a bit to Germany. So, it was already involved in a bit of export and certainly Ireland. So, as part of my journey to develop and grow the business, I got quite excited about the export markets for a number of reasons. Because I knew that there was a demand for our product, because we started to make specific product and work with colours which people really liked. So, then it entered into a craft market as well.”

Shona had the opportunity to participate in a trade show in Japan, where she successfully obtained significant business deals in 2005. However, they have lost market in this country because the economic recession after COVID. Interestingly, they have seen their exports growth to 58% of their trade turnover. They see opportunities for continuing to expand to all countries in Europe despite losing an important customer in Germany because of Brexit.

## **Exporting information and the future**

More than 50% of Nutscene Twines Ltd sales are oriented toward the international market. They are currently exporting to 26 countries. The most important markets in which they are exporting include United States, Japan, Australia, and New Zealand. The European Union is an important market for them to continue expanding overseas.

## Appendix 6: Methodological note

We used a conditional difference-in-difference (CDiD) approach which combines propensity score matching (PSM) and difference-in-difference (DiD) approaches to identify the direct impacts of entering an export market. The CDiD approach is a two-step process that allowed us to estimate the difference between turnover and number of employees before and after SME entry into an export market. This approach is frequently used for policy evaluation and recommended in HM Treasury's Magenta Book<sup>8</sup>.

However, there are several limitations which need to be accounted for:

- 1) There is a conditional independence assumption which assumes that the observable differences between the treated (exporters) and non-treated (non-exporters) group can be controlled and therefore the outcome that would occur in the absence of treatment would be the same in both cases.
- 2) The approach requires a rich dataset that contains the key variables that affect both the decision to enter export markets, appropriate outcome variables, and appropriate control variables. The LSBS contains a rich number of variables to be able to conduct this analysis, however, when looking at Scotland, the number of observations in a sub-sample becomes quite low.
- 3) The matching procedure cannot account for unobservable characteristics that can interact with the measured outcomes (e.g., managerial characteristics). Even though the LSBS contains a vast number of variables we are limited by the sample size in what we can apply.
- 4) When sample sizes for either control or treatment groups are small, as is the case for women-led exporters in Scotland, estimations run the risk of yielding imprecise estimates.

Despite these limitations the results are still valid as we took several steps to ensure the robustness of our analysis. Our starting point for the conditional difference-in-difference analysis was all SMEs in the UK. From here we selected firms that exported in 2018 and discarded firms that exported before 2018. We also discarded any company that says they do not know if they exported or did not export. Our treatment groups are therefore SMEs that exported in 2018 while the control group were the non-exporters.

Both groups were then split into two: observations for the whole UK, and observations for Scotland only. The remaining number of single treated firms in the UK is 3,333 and in Scotland is 182. While the number of potential control UK firms in the 2017-2020 period ranges from 5143 up to 11,579, the number of potential control Scottish firms in the 2017-2020 period ranges from 547 up to 903.

To aid further analysis and fulfil the objective of this study, these groups were further divided into two: women/equally led SMEs and male-led SMEs. The single treated

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<sup>8</sup> For further information on measuring the economic impact of exporting see: Koch et al., (2022). Methods review: Economic impacts of large exporters. London Economics. Accessed: 04/03/2022. Available from: <https://assets.publishing.service.gov.uk/media/630660c38fa8f5536b2883cf/methods-review-economic-impact-of-large-exporters.pdf>

women/equally led SMEs in the UK is 1,579 and in Scotland is 52. While the single treated male-led SMEs in the UK is 3128 and in Scotland is 100. For the potential control women/equally led SMEs in the UK, the number in the 2017-2020 period ranges from 1,809 up to 4,842, and in Scotland ranges from 206 to 343. For the male-led SMEs in the UK, the number of the potential control ranges between 3084 to 6288, and in Scotland, it ranges between 368 and 487.

Our outcome variable was the average turnover and number of employees. The main identification challenge for estimation purpose is to know what would have happened with the firms exporting had they not started exporting. It is important we find a control group of firms similar to those who are exporting, because those who are exporting might differ systematically from the firm who are not exporting. The key identifying assumption behind this procedure is that the treated group's outcome variables would behave like the control group's outcomes if there were no exportation.

For the impact analysis, we employ the difference-in-differences (DiD) matching estimator. This approach enables us to compare the changes in firm performance between exporting firms (treatment group, T) and their matched non-exporting counterparts (control group, NT). Let  $Y_{Tj,t}$  represent the logarithm of the outcome measure  $Y$  for treated firm  $j$  in year  $t$ . The difference in the log of the outcome measure between year  $t$  and  $t-1$  for treated firm  $j$  is defined as  $\Delta Y_{Tj,t} = Y_{Tj,t} - Y_{Tj,t-1}$ . The same quantities are computed for the firms in the control group (NT). We then obtain the average treatment effect on the treated (ATET) by comparing these differences. The ATET is calculated as follows:

$$ATET = \frac{1}{N_T} \sum_{j=1}^{N_T} (\Delta Y_{Tj,t} - \Delta Y_{NTi,t})$$

Where  $N_T$  is the number of treated firms, and  $Y_{Tj,t}$  and  $\Delta Y_{NTi,t}$  are the log differences for treated and matched control firms, respectively. In the matching procedure, all variables related to the treatment assignment and the outcome were included. Each treated firm is matched with a control firm considering performance measures and observable characteristics in the before-treatment period. As matching using the exact values of all covariates is not possible, treated firms and control firms are matched using the propensity score estimated via a logistic regression model with a set of pre-treatment attributes. This method estimates the conditional probability that a firm exports based on firm characteristics.

We selected three sets of independent variables for our matching approach: location type as urban or rural, industry sector<sup>9</sup>, and geographical context as England, Scotland, Wales and Northern Ireland. Our goal is to identify the most similar control firm for each treated firm based on these variables to accurately estimate the propensity score. Given this objective, we are not concerned with multicollinearity among the variables, as we do not interpret the probit regression coefficients or their standard errors. Instead, we focus on the propensity score, i.e., the overall fit of the

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<sup>9</sup> There are 14 industry sectors that the LSBS captures – Primary; Manufacturing; Construction; Wholesale/Retail; Transport/ Storage; Accommodation/ Food; Information/ Communication; Financial/ Real Estate; Professional/ Scientific; Administrative/ Support; Education; Health/ Social Work; Arts/ Entertainment; and Other Service.

logistic regression, and more importantly, on achieving covariate balance after matching.

With the estimated propensity score, we conduct Kernel matching, matching each treated unit with multiple control units with different weights. There was 1,579 treated women/equally led SMEs in the UK. As all the firms were matched during the Kernel matching, the final number of treated firms remains 1,579 while the control firms are 9,022.

For the male-led SMEs in the UK, no treated firms were eliminated as there were matching control firms. The final number of treated firms is 3,128 while the matching approach identified 8,994 control firms.

None of the 52 treated women/equally led SMEs in Scotland were eliminated because they all had matching control firms. The final number of control firms is 610. Of the 100 treated male-led SMEs in Scotland, none were eliminated. The final number of untreated firms was 824.

After matching, we performed the DiD analysis to estimate the treatment effect. This involved three steps. Firstly, we calculated the difference in the outcome variable before and after the treatment period.

For treated firms (T):

$$\Delta Y_{Tj,t} = Y_{Tj,t} - Y_{Tj,t-1}$$

For matched control firms (NT):

$$\Delta Y_{NTi,t} = Y_{NTi,t} - Y_{NTi,t-1}$$

Then we computed the difference between the changes in outcome for treated and control firms:  $D_i = \Delta Y_{Tj,t} - \Delta Y_{NTi,t}$ . Finally, we calculated the average of these differences to estimate the ATET. The weighted difference in difference is then:

$$ATE_T = \frac{1}{N_T} \sum_{j=1}^{N_T} w_j \cdot D_i$$

Where  $w_j$  are the weights assigned to the matched control units,  $N_T$  is the number of treated units, and  $D_j$  is the DiD for treated unit  $j$ .

## Results

Tables A1 – A4 present the results from the PSM and DiD for Women-led and equally led SMEs Scotland.

Tables A5 – A8 present the results from the PSM and DiD for male-led SMEs Scotland

Tables A9 – A12 present the results from the PSM and DiD for women-led and equally-led SMEs UK

Tables A13 – A16 present the results from the PSM and DID for male-led SMEs UK

### Table A1: Propensity Score Matching – Kernel – Women-led and equally led SMEs Scotland

Logistic regression

Number of obs = 662

LR chi2(2) = 10.07

Prob > chi2 = 0.0065

Pseudo R2 = 0.0276

Log likelihood = -177.15655

Treatment	Coefficient	Std. err.	z	P> z	[95% conf. interval]	[95% conf. interval]
SIC1DIG	-.1312139	.0433824	-3.02	0.002	-.2162418	-.0461861
URBRUR1	-.0135541	.0430281	-0.32	0.753	-.0978876	.0707794
_cons	-1.445121	.7010589	-2.06	0.039	-2.819172	-.0710711

### Table A2: PSTest – Kernel – Women-led and equally led SMEs Scotland

Verification that the covariates are balanced across treated and control groups after matching.

Variable	Treated	Control	%bias	t	p> t	V(C)
SIC1DIG	5.3846	5.9175	-14.5	-0.76	0.449	1.19
URBRUR1	15.154	15.246	-2.8	-0.14	0.889	0.98

\* if variance ratio outside [0.57; 1.74]

Ps R2	LR chi2	p>chi2	MeanBias	MedBias	B	R	%Var
0.004	0.61	0.736	8.6	8.6	15.2	1.15	0

\* if B>25%, R outside [0.5; 2]

**Table A3: Regression – DiD – Women-led and equally led SMEs Scotland 2018 & 2019 turnover**

P1_2018	Coefficient	Std. err.	t	P> t	[95% conf. interval]	[95% conf. interval]
Treatment	-599156.3	1298234	-0.46	0.645	-3153525	1955212
Time	364459.8	383998.2	0.95	0.343	-391084.3	1120004
DiD	2217040	1504154	1.47	0.142	-742491.9	5176572
_cons	677322.9	314868	2.15	0.032	57797.52	1296848

Number of obs = 317

P1_2019	Coefficient	Std. err.	t	P> t	[95% conf. interval]	[95% conf. interval]
Treatment	-599156.3	825968.5	-0.73	0.469	-2227232	1028920
Time	473150.8	275927.6	1.71	0.088	-70733.18	1017035
DiD	3672016	1070650	3.43	0.001	1561646	5782386
_cons	677322.9	200326.8	3.38	0.001	282456.5	1072189

Number of obs = 218

**Table A4: Regression – DiD – Women-led and equally led SMEs Scotland 2018 & 2019 number of employees**

P1_2018	Coefficient	Std. err.	t	P> t	[95% conf. interval]	[95% conf. interval]
Treatment	-13.67521	9.240045	-1.48	0.140	31.83124	4.480818
Time	2.687264	2.724976	0.99	0.325	-2.66712	8.041647
DiD	10.29564	10.74955	0.96	0.339	-10.82645	31.41774
_cons	14.23077	2.2484	6.33	0.000	9.812823	18.64872

Number of obs = 483

P1_2019	Coefficient	Std. err.	t	P> t	[95% conf. interval]	[95% conf. interval]
Treatment	-13.67521	10.44262	-1.31	0.191	-34.22208	6.871653
Time	4.691309	3.528799	1.33	0.185	-2.251943	11.63456
DiD	4.353136	14.40057	0.30	0.763	-23.98137	32.68764
_cons	14.23077	2.541026	5.60	0.000	9.231056	19.23048

Number of obs = 316

**Table A5: Propensity Score Matching – Kernel – male-led SMEs Scotland**

Logistic regression

Number of obs = 924

LR chi2(2) = 2.12

Prob > chi2 = 0.3464

Pseudo R2 = 0.0033

Log likelihood = -315.67629

Treatment	Coefficient	Std. err.	z	P> z	[95% conf. interval]	[95% conf. interval]
SIC1DIG	-.01039	.0303715	-0.34	0.732	-.0699171	.0491371
URBRUR1	.0486051	.0342882	1.42	0.156	-.0185985	.1158088
_cons	-2.78052	.5666454	-4.91	0.000	-3.891125	-1.669916

**Table A6: PSTest – Kernel – male-led SMEs Scotland**

Verification that the covariates are balanced across treated and control groups after matching.

Variable	Mean		%bias	t-test		V(T)/
	Treated	Control		t	p> t	V(C)
SIC1DIG	5.7	5.8581	-4.5	-0.32	0.752	1.00
URBRUR1	15.28	14.734	18.8	1.37	0.173	0.99

\* if variance ratio outside [0.67; 1.49]

Ps R2	LR chi2	p>chi2	MeanBias	MedBias	B	R	%Var
0.007	1.90	0.387	11.6	11.6	19.5	1.06	0

\* if B>25%, R outside [0.5; 2]

**Table A7: Regression – DiD – male-led SMEs Scotland 2018 & 2019 turnover**

P1_2018	Coefficient	Std. err.	t	P> t	[95% conf. interval]	[95% conf. interval]
Treatment	1155691	2216199	0.52	0.602	-3202044	5513426
Time	1133489	572875.2	1.98	0.049	7038.806	2259940
DiD	4832569	2508313	1.93	0.055	-99551.9	9764689
_cons	772642.5	426507.7	1.81	0.071	-66004	1611289

Number of obs = 517

P1_2019	Coefficient	Std. err.	t	P> t	[95% conf. interval]	[95% conf. interval]
Treatment	1155691	1727205	0.67	0.504	-2243956	4555337
Time	416978.2	514186.3	0.81	0.418	-595091.2	1429047
DiD	4777001	2052904	2.33	0.021	736283.5	8817719
_cons	772642.5	332400.8	2.32	0.021	118380.2	1426905

Number of obs = 379

**Table A8: Regression – DiD – male-led SMEs Scotland 2018 & 2019 number of employees**

P1_2018	Coefficient	Std. err.	t	P> t	[95% conf. interval]	[95% conf. interval]
Treatment	-.8320921	16.80546	-0.05	0.961	-33.82926	32.16508
Time	3.154385	3.70311	0.85	0.395	-4.116594	10.42536
DiD	32.91704	18.03711	1.82	0.068	-2.49846	68.33255
_cons	16.26066	3.011419	5.40	0.000	10.3478	22.17352

Number of obs = 680

P1_2019	Coefficient	Std. err.	t	P> t	[95% conf. interval]	[95% conf. interval]
Treatment	-.8320921	19.25117	-0.04	0.966	-38.66048	36.9963
Time	3.872957	4.766896	0.81	0.417	-5.493956	13.23987
DiD	36.3281	21.78138	1.67	0.096	-6.472143	79.12834
_cons	16.26066	3.449672	4.71	0.000	9.482085	23.03924

Number of obs = 477

**Table A9: Propensity Score Matching – Kernel – women-led and equally-led SMEs UK**

Logistic regression

Number of obs = 10,601

LR chi2(2) = 212.97

Prob > chi2 = 0.0000

Log likelihood = -4355.2693

Pseudo R2 = 0.0239

Treatment	Coefficient	Std. err.	z	P> z	[95% conf. interval]	[95% conf. interval]
SIC1DIG	-.1073064	.0078465	-13.68	0.000	-.1226851	-.0919276
NATION	-.3283033	.0625253	-5.25	0.000	-.4508507	-.205756
URBRUR1	.0291547	.0078677	3.71	0.000	.0137342	.0445752
_cons	-.8432934	.080438	-10.48	0.000	-1.000949	-.6856377

**Table A10: PStest – Kernel – women-led and equally-led SMEs UK**

Verification that the covariates are balanced across treated and control groups after matching.

Variable	Mean		%bias	t-test		V(T)/
	Treated	Control		t	p> t	V(C)
SIC1DIG	6.0431	6.3827	-9.7	-2.85	0.004	0.88*
NATION	1.1951	1.1982	-0.5	-0.14	0.888	1.18*
URBRUR1	7.5624	7.5515	0.2	0.06	0.950	1.03

\* if variance ratio outside [0.91; 1.10]

Ps R2	LR chi2	p>chi2	MeanBias	MedBias	B	R	%Var
0.002	8.57	0.036	3.5	0.5	10.4	0.92	67

\* if B>25%, R outside [0.5; 2]

**Table A11: Regression – DiD – women-led and equally-led SMEs UK 2018 & 2019 turnover**

P1_2018	Coefficient	Std. err.	t	P> t	[95% conf. interval]	[95% conf. interval]
Treatment	2224494	907644.4	2.45	0.014	445020.2	4003968
Time	33469.96	190583.5	0.18	0.861	-340176.8	407116.8
DiD	-433432.4	930919.1	-0.47	0.642	-2258538	1391673
_cons	1199266	171406.3	7.00	0.000	863216.6	1535315

Number of obs = 4,116

P1_2019	Coefficient	Std. err.	t	P> t	[95% conf. interval]	[95% conf. interval]
Treatment	2200484	961394.2	2.29	0.022	315235.5	4085733
Time	225596.9	216523.8	1.04	0.298	-198996.2	650189.9
DiD	-709177	1006149	-0.70	0.481	-2682188	1263834
_cons	1199266	178015.6	6.74	0.000	850185.4	1548346

Number of obs = 2,404

**Table A12: Regression – DiD – Women-led and equally led SMEs UK 2018 & 2019 number of employees**

P1_2018	Coefficient	Std. err.	t	P> t	[95% conf. interval]	[95% conf. interval]
Treatment	5.722589	5.713455	1.00	0.317	-5.477737	16.92291
Time	-1.518149	1.151324	-1.32	0.187	-3.775139	.7388398
DiD	-3.372967	5.847555	-0.58	0.564	-14.83617	8.090239
_cons	17.58044	1.046305	16.80	0.000	15.52933	19.63156

Number of obs = 6,284

P1_2019	Coefficient	Std. err.	t	P> t	[95% conf. interval]	[95% conf. interval]
Treatment	5.982058	6.241971	0.96	0.338	-6.256442	18.22056
Time	-.7554416	1.372502	-0.55	0.582	-3.446478	1.935594
DiD	-5.133374	6.538488	-0.79	0.432	-17.95325	7.686502
_cons	17.58044	1.126211	15.61	0.000	15.3723	19.78858

Number of obs = 3,323

**Table A13: Propensity Score Matching – Kernel – male-led SMEs UK**

Logistic regression

Number of obs = 12,120

LR chi2(2) = 182.98

Prob > chi2 = 0.0000

Pseudo R2 = 0.0132

Log likelihood = -6829.5756

Treatment	Coefficient	Std. err.	z	P> z	[95% conf. interval]	[95% conf. interval]
SIC1DIG	-.0758681	.006262	-12.12	0.000	-.0881414	-.0635948
NATION	-.2832519	.0458586	-6.18	0.000	-.3731332	-.1933707
URBRUR1	.0350445	.0061208	5.73	0.000	.023048	.047041
_cons	-.5249238	.0584706	-8.98	0.000	-.6395242	-.4103235

**Table A14: PSTest – Kernel – male-led SMEs UK**

Verification that the covariates are balanced across treated and control groups after matching.

Variable	Mean		%bias	t-test		V(T)/V(C)
	Treated	Control		t	p> t	
SIC1DIG	5.6202	5.7688	-4.4	-1.84	0.065	0.99
NATION	1.2276	1.2154	1.7	0.71	0.478	1.24*
URBRUR1	8.0531	7.9378	2.3	0.89	0.371	1.09*

\* if variance ratio outside [0.93; 1.07]

Ps R2	LR chi2	p>chi2	MeanBias	MedBias	B	R	%Var
0.000	4.31	0.230	2.8	2.3	5.2	1.04	67

\*if B>25%, R outside [0.5; 2]

**Table A15: Regression – DiD – male-led SMEs UK 2018 & 2019 turnover**

P1_2018	Coefficient	Std. err.	t	P> t	[95% conf. interval]	[95% conf. interval]
Treatment	494906.3	1385753	0.36	0.721	-2221761	3211574
Time	684292.3	313659.2	2.18	0.029	69386.25	1299198
DiD	2988281	1409905	2.12	0.034	224266.6	5752296
_cons	1575687	282314.8	5.58	0.000	1022230	2129145

Number of obs = 5,130

P1_2019	Coefficient	Std. err.	t	P> t	[95% conf. interval]	[95% conf. interval]
Treatment	494906.3	1612836	0.31	0.759	-2667513	3657326
Time	542184.3	399883.1	1.36	0.175	-241899.4	1326268
DiD	2650130	1669312	1.59	0.112	-623026.9	5923287
_cons	1575687	328577.6	4.80	0.000	931418.3	2219957

Number of obs = 2,905

**Table A16: Regression – DiD – male-led SMEs UK 2018 & 2019 number of employees**

P1_2018	Coefficient	Std. err.	t	P> t	[95% conf. interval]	[95% conf. interval]
Treatment	1.777606	6.729196	0.26	0.792	-11.41364	14.96885
Time	.69126	1.441193	0.48	0.631	-2.133911	3.516431
DiD	11.63924	6.834401	1.70	0.089	-1.758241	25.03671
_cons	18.4066	1.307195	14.08	0.000	15.84411	20.9691

Number of obs = 7,067

P1_2019	Coefficient	Std. err.	t	P> t	[95% conf. interval]	[95% conf. interval]
Treatment	1.777606	6.788228	0.26	0.793	-11.53147	15.08668
Time	.2383565	1.615442	0.15	0.883	-2.928896	3.405609
DiD	7.221756	7.01825	1.03	0.304	-6.5383	20.98181
_cons	18.4066	1.318662	13.96	0.000	15.82122	20.99199

Number of obs = 3,673

## **Appendix 7: Women exporters - illustrative quotes**

### **Theme 4.2.1.1. Challenges to export**

“It's not clear what sort of support there is for that... I'm a little bit kind of flying blind in that respect. We have got some revenue from internationalisation and XXX are always keen to see that, but in terms of how we get that next like... I don't really know how we do that, right? So, it's a bit difficult” (Participant 4).

“I don't know what happened to the contacts from XXX because at one point they were very involved. And then they seem to disappear. So, I don't know where our contact went, and I haven't pursued it or tried to find out... So, we got funding towards going to shows... But then only that disappeared and seemed to stop” (Participant 6).

“They have an idea of people they want. There was a digital grant, Digital Boost... And it's been going for years, and I know that one year we went for it and basically what happened we failed... While we heard all the big companies have stuff ready... They're not the guys that necessarily need it, but they have it already, they know it, and they get it... And I really think this is an issue as well” (Participant 1).

“Brexit was the biggest issue for us. We lost a load of our European customers because they didn't want to pay taxes anymore. It caused huge increases on our costs, our fabric... We use organic cotton fabric, and you can't grow cotton in Scotland. So, we have to import and whilst we manufacture most things ourselves, we do still have stuff made in factories in Europe and Turkey. So, those costs jumped” (Participant 1).

“Products were getting stuck at customs and people were having to go and pick it up and pay an inordinate amount of money, more than the product, more than the overall order... We spent about almost a year trying to work out what we had to do, and part of the problem was no one knew what was going to happen. So, no one could prepare you for that and no one knew what the solutions were. So, it took quite a while for those solutions to become apparent, and we then started to work with a company that helped us just like to ship without all of those charges being so onerous. And that's what we're doing at the minute. But the consumer has stepped back a little bit because of the challenges” (Participant 7).

“A challenge we've had since Brexit in our fashion world... It's much easier for clients to shoot in mainland Europe because they don't have to carry the collections over to the UK. So, it's just that perception that is just more difficult to do business here. So, if you're thinking about bringing lighting specialist cameras, high-end talent from around the world... And then the clothes themselves, the collections. It's easier to go to France, to Italy, or to Spain, or you know the Canary Islands are really popular place to shoot fashion. So, if they could reverse Brexit, that'd be great” (Participant 14).

“A lot of the times the challenge is about being able to retrieve our cost and finances for delivering these services... Because the timeline of the big organisations doesn't

really match with us... Although we've delivered the work, we know we're going to get paid, but it's not in the right time for us... Two weeks to a month difference makes a lot of difference. Whether we can sustain workforce” (Participant 8).

“I have experienced gender stereotype outweigh in terms of raising investment and funding... I have had to work extremely hard to get the investment... And I know that if I was a man... I wouldn't have had to go through so many rounds of investment, and I would have had a much bigger chunk of investment”. (Participant 7).

“I have actually been turned down for training gigs with our partner because I'm a woman. And it's my course, I wrote it. I deliver it, and often I have to send a man because we're training in the Middle East and there are some cohorts of men that will not be trained by a woman... I have to send a man to deliver it in my place” (Participant 4).

“The big challenge for any exporter is to understand the market... How are we going to get money from our buyer keeping the business safe? How will we risk the export? is the right way to selling it? How will I get my money? How fast can I export? What are the challenges I can face in export? What is the right paperwork I need in the country of export? These were the big questions for every new country” (Participant 5).

“I think more than anything exporting regulation and distribution... So, I've had time with a rep from XXX who's based in America. So, she helped me to understand the market, and I also got a XXX... I got them to do some international research for California... But they pulled together a huge, big like plan of stuff. It's been really helpful and just speaking to people like the trade mission ladies been quite helpful. But apart from that, I'm not going with a huge amount of knowledge. I have to be honest” (Participant 11).

“It's a more difficult thing for a woman to do because they've just got family. Then you need to have the support... if you want to go abroad to go and do a trade show.

So, it's not like in a man's world... The majority, just say, yeah, I'm going to this country. If a woman's going, she's got to organise the whole bling, the whole of her life” (Participant 6).

### **Theme 4.2.1.2. Support provision**

“My network needs to change as well. So, I'm out actively looking for other founders who've raised investment because that's my new goal. So, I'm actively building my network in that space. However, I have quite a good network through XXX and just generally being part of the business ecosystem in Scotland... I've basically been around that long now that I'm part of the brickwork” (Participant 4).

“When I used to travel, I used to get 50% of my expenses covered by XXX... That made me take that risk to travel abroad further away and meet my clients. Those resources were very helpful” (Participant 5).

“But the support which is very helpful still today is for example, the support businesses from XXX and XXX, even if it is small grants, which is it grant or for you know like this which helps in buying equipment... There are subsidies and grants available for that one grant. I used to find very useful which really helped me in the beginning of my journey” (Participant 5).

“We're on the growth pipeline with XXX we got funding. We've done a crowdfunding campaign and we had two-part time machinists' supremacists, and we relaunched on July 2017” (Participant 1).

“In the accelerator... There are regular sessions... for example, selling or exporting, somebody's like covering their export journey and investment sessions. A business growth session which was interesting... We have benefited from things like that” (Participant 9).

“I've just done that business growth course and it was really interesting, really inspired me to do other things... if there was a section in that could actually, specifically, deal with exporting... Because we had a lot of mentors and a lot of people that were in talking about their business... And you thought - Oh my God, that's amazing - But then you go away and you think -well, what do I do about that?... it's about growing your business... I did it through Dundee University” (Participant 6).

“To be fair, I think government support we've actually done pretty well with and my account manager that I currently have with XXX, and I have an account manager with XXX as well. They've been very good. I have to say and wherever they can help me, they will... They want to see us do well, and they want to see us go international” (Participant 4).

“They're feeling like they need more support, then they can involve the person from the XXX desk in that country. And that person can help them with zoom calls... Now with zoom, a lot of contacts are made... So, I think if they are really needing a support from that point of view, maybe XXX or the trade desk in the XXX in that country can help arranging meetings and calls” (Participant 5).

### **Theme 4.2.1.3 Support required to grow internationally**

“I think more awareness comes back to having events where businesses are talking about their experiences... Like a roadshow thing that they could go around and speak to other businesswomen and encourage them to go down the route of export and let them know that it's not too difficult and then have the back up there that like - OK, I want to go and do a show and there's shows in Las Vegas...can I actually do

that? What's the best way? Who are the contacts so that I can go out there?" (Participant 6).

"I think just making it easier to participate in those things. Generally having more advanced warning, a lot of these things appear, and you know it takes a lot of time and resource for a small business to be able to get organised to go.... It's like let us know when it's happening, give us lots of notice, make it easy to take part. Don't make us jump through too many hoops because we're busy running our businesses" (Participant 14).

"Then it is maybe some real connections to organisations here. For example, when you are exporting and importing, you need customs agents, companies which specialise in customs from the UK for example to export. So, who are these people? Who are these companies? What kind of companies they should look out for?" (Participant 5).

"To support women to go and attend shows and see the potential.... if someone could say to me - let's support you to go to one of the most prominent outdoor shows, we will support you by contributing to the cost of that... The biggest challenge is... all of the costs associated with getting yourself there. If I got there and I've got my product set up and my stand looks great. There's nobody going to sell it better than me... And then that starts that sort of flywheel of being able to have wholesalers or agents in these countries" (Participant 7).

"I would have liked to have been able to pick up a phone to somebody and ask a question and I get information about it... I asked other people that I knew who were involved in export. I would pick up the phone to them and say - oh, I've got an enquiry from how I do that or... What paperwork do I need?" (Participant 6).

"I asked XXX once If I could get some export help and I said I didn't know about regulations and obviously packaging is a big deal when you've got a cosmetic product. So, I asked them for some help and then they put me in touch with this supposed expert who told me that all I needed to do was go on to one of these websites and find out what the requirements were on there, and I thought - well that ticks the box there, but that doesn't do anything else" (Participant 11).

"Organising short term courses like you know one-and-a-half-day course most women can attend because their children are at school. So, half day courses where they can go and attend to understand how the logistics work; how the supply chain works... how can they get their money safely from a country they are going to export to; what are the various instruments for getting their money back" (Participant 5).

"I went to an event... A few weeks ago, and actually it was brilliant, and I hadn't been to a networking event for ages. We were all women. We were all business owners or worked in business at a higher level... We're not good if we're not strong ourselves. So, it was really powerful just to sit and talk about how you keep well and positive. and deal with everything that gets thrown at you every day. Everybody's trying to be gender neutral nowadays that you can't deny the fact that women behave in thinking a very different way to men. I think that having women only... Allowed to say this is

how I feel in this situation.... It was an event it organised by the XXX” (Participant 10).

#### **Theme 4.2.1.4 Opportunities to grow**

“I was not doing any local sales at all. Then there was a huge problem I faced in 2005... I had already started getting inquiries from other countries, and I was also researching data for other countries. When I had a big problem in India, that's when I realised that maybe it was not a good idea to keep focused on a single market, even though it was a large market. It was still a single market and that's when I decided to start expanding my business to other countries. So, then I started selling to Pakistan and Bangladesh and Sri Lanka, and China” (Participant 5).

“The English language was a big thing because I wanted to make sure that I could deliver the best service. And I chose the Orange County trip because it's a really affluent area, and we do sell at a slightly higher price point. Although it's definitely not a luxury product and they're quite eco-conscious over there. So have done a bit of research on it. I don't think all of America is, but certainly the West is a bit better” (Participant 11).

“We regulate as part of our DNA to export our services to various locations around the world. These locations are driven by the market of our clients. Broadly speaking, we work with client seeking protection in US, Canada. Some Latin American countries really, depending on the sector, for instance, we have a client recycling used coffee beans ...And then if we move to Asia, we've got India, China, Japan, Korea, Hong Kong... So, we have a really broad list of foreign associates that we work with” (Participant 2).

“What we've done is we invested in some software to enable us to process our export orders seamlessly in terms of we get all the paperwork right, and we work very closely with pallet companies that we're sending... So, they make it easier for us. What we do is all the customers who are ordering from across Europe will place an order with us, and they will ask us to deal with all of it. So, all of the shipping, we'll get quotes for the delivery... tell them what the cost of that delivery is” (Participant 6).

“I'd say that's about 92% of sales are via Amazon (Spain and Italy). I also still have an Etsy (Switzerland) account and I keep that going because I get a lot of international sales from that. So, it's actually quite good market research to see where people are buying from internationally there....I also have an e-commerce website” (Participant 13).

## **Appendix 8: Women non-exporters - illustrative quotes**

### **Theme 4.2.2.1 Prevailing historical barriers**

“My health was deteriorating because of my job, it was my friend who told me that I was being bullied, I hadn’t realised and was mentally drained so after I left that job, I decided to set up my own business which just launched this year” (Participant 26).

“I became a mother and realised the lack of flexibility in my job” (Participant 23).

“My career journey was delayed because of my family and then COVID interrupted life and my long-term plan but this allowed me to restructure my business and gave me time to re-train and learn more about the business I wanted” (Participant 20).

“There are no grants or funds available for my sector or size of business” (Participant 21).

“I don’t like owing anybody so would prefer not to borrow...I would prefer to grow organically where there is no financial jeopardy” (Participant 22).

“I have lots of access to grants and funding because where I am based is seen as a very deprived area” (Participant 17).

“I ended up finding my own networks through events” (Participant 21).

“XXX directed me to online workshops which were ok but I have made my own networks and developed some contacts that way” (Participant 20).

### **Theme 4.2.2.2 Challenges facing support**

“No support for service providers...even now when I am growing there is very little support as I don’t have a ‘product’” (Participant 26).

“The XXX advisor to begin with wasn’t very good, they couldn’t understand my business idea... ..but I will say that XXX offer good courses like the legal and accounts information...XXX was very difficult to engage with...XXX pointed me in the direction of a website” (Participant 26).

“XXX were my biggest cheerleaders and they sent me to XXX who gave me an interview and took me on as a ‘client’” (Participant 18).

“XXX did not help me, they sent me the most basic information and then sent me to Scottish Enterprise who said I wasn’t within their remit...I ended up paying for a lawyer to help me because I needed the advice” (Participant 23).

“XXX didn’t help, they were very basic in their support and help and I wasn’t established enough to be taken seriously with XXX” (Participant 20).

“There was no support from Business Gateway when I was setting up, they basically said to me ‘go back and ask for your job’” (Participant 24).

“Business advisors have no real experience and are often condescending to women” (Participant 24).

“Because women are likely to get bad support, women are then ore likely to set up rubbish businesses, setting women up to fail” (Participant 22).

“There is so much information out there that I need some handholding” (Participant 17).

“It was labour intensive wading through the information to start up my business and I ended paying for a lawyer because I needed a human being who know what they were talking about” (Participant 23).

“When I started 10 years ago, I didn’t know about the support landscape...if I had known sooner, I would have grew” (Participant 20).

#### **Theme 4.2.2.3 Opportunities for growth and exporting**

“I don’t want to employ people as I don’t want to manage a team and I want to work from home but I still want to grow as a business” (Participant 20).

“I am updating my website now and I want to grow but it’s been slow because I have had no processes or systems in place” (Participant 21).

“My main market is Scotland and then the UK, I would like to think when we grow it would be internationally in places like Canada, USA, UAE but only after the business has been established in the UK” (Participant 19).

“At the moment my business is only Scotland based with clients from Scotland because there is potential growth in Scotland and there is an opportunity to widen the scope in Scotland then England and then the UK...but Australia and New Zealand are going similar work to us and there is potential option there which would be commercial” (Participant 23).

“I will be growing Scotland-wide as there is more innovation funding here but my business and its service can easily be transported globally given the technology” (Participant 22).

“Not actively looking to export but if the opportunity arose then I would seriously consider it” (Participant 17).

#### **Theme 4.2.2.4 The support requested to achieve growth and exporting**

“How to help people export, about tax, company structures in different contexts, the legal implications...there is so much that I need to know but don’t know where to look...I don’t want to dip my toe in until I have real knowledge [re. exporting]” (Participant 20).

“Growth has been organic, and the business has evolved but there is a gap in ‘I don’t know how much more I can achieve’ – this is where I think I need a mentor” (Participant 24).

“Female founders just don’t get enough support, we need sustainable support which is ongoing and not these short bursts of courses and support here and there” (Participant 19).

“For internationalisation, my worry is the language and cultural barriers, who do I ask for help?” (Participant 24).

## **Appendix 9: Stakeholders – illustrative quotes**

### **Theme 4.2.3.1 Pre-growth challenges**

"The ecosystem in Scotland doesn't really talk about exporting... we spend too much time talking about investment. And actually, if you look at the reality of it, it's a small proportion of businesses that go on and raise investment. And we're not talking about other ways to grow their business. And sometimes you need investment to start exporting absolutely, but you can do it without raising investment. But no, there's, there's not much awareness" (ESO1).

"Women just don't really want to export... Don't know if I believe that. I just think they don't probably see the opportunities or it's really difficult for them to do because I think there's still quite a lot of barriers" (ESO5).

#### **Pre-growth opportunities:**

"That sort of role model thing is really, really important... I'm so keen to talk about women who have done well. Because I think that's just an inspiration for everyone... Case studies of women who are successfully exporting would be really useful to be able to showcase" (ESO1).

"So there seems to be a lot of opportunities for e-commerce online selling social media marketing" (ESO4).

### **Theme 4.2.3.2 Early growth challenges:**

"I think part of the sectors that women typically focus on tend to be much more service related, which typically lends to being more domestic like, more focused in Scotland rather than international markets, that can be a bit of a barrier" (ESO3).

"Women are quite bad for deselecting themselves for things, so they look at the criteria for something. If they don't hit it all, they won't. They won't go for it" (ESO1).

"On the trading nation, Nigeria, I think appears as the only country. But that is really only because of the size of the population. Nothing actually happens and as the government, as a Scottish Government, we don't have a single person in the entire African continent as a representative" (ESO6).

"I think some women don't necessarily feel comfortable travelling to places they've never been before, which are maybe deemed or seem to be higher risk" (ESO2).

#### **Early growth opportunities:**

"This includes ensuring that options are available for people to participate remotely. Using digital technology and limiting the amount of face-to-face participation at times, which would be challenging for women to participate" (ESO4).

"Women will be in certain sectors, which might allude to being a bit easier for them to be accessing different markets through basically web and digital online platforms" (ESO5).

### **Theme 4.2.3.3 Growth Challenges:**

"A lot of the stuff that we're doing is about trying to reduce the gap that women face when trying to raise investments. So, we know from the pathways report that there is a significant gap in terms of institutional investment going into female-led businesses" (ESO3).

"Someone has to have the skills to understand what the implications are for their business, where the opportunities may lie and where the greatest challenges may lie. That then comes down to resources. So particularly SMEs, you know, I mean, I don't know if you've ever tried to read a free trade agreement, but it takes a very long time!" (ESO2).

"But a lot of it's around building your networks communities because that's the kind of challenges that we see that women are facing is that they don't have the same kind of networks. They don't have the same reach into those groups because they've not been exposed to them" (ESO3).

### **Growth Opportunities:**

"But service is also open to all new and early-stage exporters with growth potential. It's delivered digitally and managed by our team, and it will provide a pipeline of companies who will be able to access SDI and Department of Business Trade Services with the potential for more intensive support as they grow their export sales" (ESO4).

"You know that we do leave space, you know, to be for women to be joining our programmes that we advertise in the right place, that our language is appropriate, you know, and how we advertise and, you know, reaching out, we're building our networks of diverse organisations" (ESO3).

"We're kind of positioning ourselves there now has been a bit of a gateway into the ecosystem, so we often get approached by other organisations. You know, we're running this, we want to get more women on it. How do we do it?" (ESO1).



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