

Majority-Female Owned Exporting SMEs in Canada

Executive Summary

While we have witnessed an increased participation of women in the economy during the past several decades, females continue to be much less likely to own businesses in Canada than males. Furthermore, when females do own businesses, they tend to be smaller and less likely to participate in international markets. Small and medium enterprises (SMEs) contribute significantly to the health and vibrancy of the Canadian economy and exporters are some of the most efficient of these firms. Export participation allows firms to expand their reach and grow their business. If we are interested in the success of female businesses and the success of females in the economy more generally, then we must understand how female owned businesses are different. This report provides an overview of the characteristics of majority-female owned SMEs¹. Specifically, the report examines differences between exporting and non-exporting SMEs owned by females as well as differences between female SME exporters and their non-female² counterparts. Using data from Statistics Canada's 2014 Survey on Financing and Growth of Small and Medium Enterprises, the report finds that:

1) Female SMEs exhibit a number of characteristics that are common to SMEs more generally:

- Exporters are larger and have more educated and experienced owners compared to non-exporting firms.
- Likewise, female SME exporters are larger than female SME non-exporters;
- They have owners with higher levels of education;
- Their owners have higher levels of management experience; and,
- Female SME exporters are more likely to be located in traditionally export-intensive industries, such as manufacturing, compared to female SME non-exporters.

2) Female SMEs are less likely to participate in exporting compared to non-female SMEs:

- A large portion of this can be explained by the fact that female SMEs participate in less export-intensive industries compared to non-females.
- Moreover, compared to non-female SMEs, female SMEs are smaller, which also makes them less likely to export.
- However, female SME owners are more educated than non-female SME owners, which should make them more likely to export.
- **Overall, female SMEs represented 15.7 percent of all SMEs, but only 11.1 percent of exporting SMEs in 2014.**

¹ Majority female owned is defined as 51+ percent of the owners self-identifying as female.

² Non-female SMEs are between 100 percent and 50 percent owned by individuals self-identifying as male.

Introduction

SMEs contribute significantly to the strength of the Canadian economy, but exporting enterprises outperform non-exporters along a number of dimensions. Exporting firms are more productive, they have higher revenues, they invest more in research and development, and they have been shown to pay higher wages.³ Majority-female owned SMEs (henceforth female SMEs) exhibit similar traits to all SMEs when it comes to internationalization. That is, exporters tend to be larger and have owners with higher levels of education and experience. Yet, female SMEs are underrepresented amongst exporting enterprises. In 2014, female SMEs represented 15.7 percent of all SMEs, but only 11.1 percent of exporting enterprises. A number of non-gender characteristics, such as industry and firm size, contribute to this underrepresentation. Using data from the Survey on Financing and Growth of Small and Medium Enterprises – which covered over 600 thousand SMEs in Canada in 2014 with over 70 thousand exporters and over 97 thousand female SMEs⁴ – this report explores the firm and owner characteristics of female SME exporters in Canada to glean more about the factors driving their export propensities and the overall nature of these enterprises.

The report is structured as follows: section one draws comparisons between female SME exporters and non-exporters showing that female SME exporters display favorable characteristics that exporting firms display more generally. Section two discusses firm and ownership characteristics that help explain the underrepresentation of female SMEs amongst exporting enterprises. Section three concludes.

1. Female SME Exporters: Not So Different

The internationalization of firms has been widely studied and several firm and ownership characteristics have been linked to export propensity. This section provides an overview of some of these characteristics and shows that female SMEs follow the same trends as all SMEs. Like all exporting firms, female SME exporters outshine their non-exporting counterparts along several dimensions – they are larger and have owners with more education and experience and who are somewhat more likely to be born outside of Canada. Furthermore, female SME exporters are located in typically export-intensive industries and they are more likely to be located in Ontario.

Female SME Exporters Outshine Female Non-Exporters in Size, Education, and Experience and They Are More Likely to Have Owners Born Outside of Canada

It is well established that, all else equal, exporting firms tend to be larger on average compared to non-exporters.⁵ Indeed, export propensity⁶ increased with firm size⁷ amongst Canadian SMEs in 2014 (Figure 1). Though information and communications technologies and increased globalization have made it easier

³ More productive enterprises are more likely to export (Melitz, 2003 and Baldwin & Gu, 2003) and once engaged internationally, firms become more productive, see Baldwin and Gu (2003). Lileeva and Trefler (2010) find that Canadian plants induced into exporting by NAFTA increased their labor productivity, engaged in more product innovation, and had higher rates of technology adoption. Mayer and Ottaviano (2008) find that European firms that engage internationally pay higher wages.

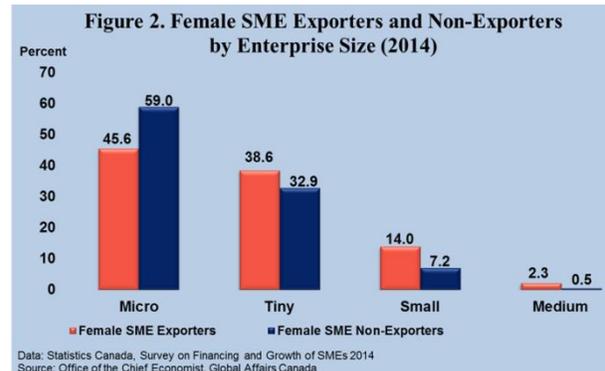
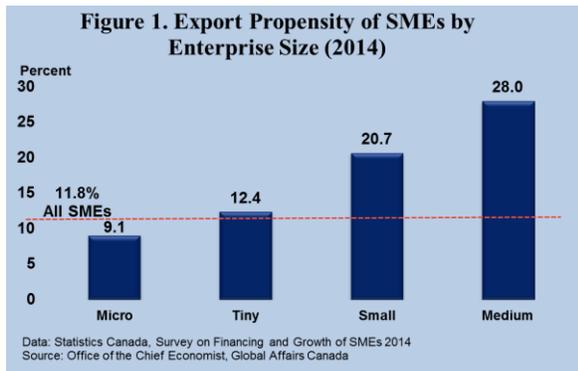
⁴ See appendix Article 1 for details about the businesses covered by the 2014 Survey.

⁵ The commonly used resource-based theory of firms suggests that SMEs need enough extra resource capacity before they can internationalize (Martineau and Pastoriza, 2016). In the Canadian context, Orser et al. (2010) finds that Canadian SME exporters are larger compared to non-exporters, controlling for other relevant firm and ownership characteristics.

⁶ Export propensity simply means the share of all SMEs that export. For example, of all small SMEs, 20.7 percent exported in 2014 – this is equivalent to the export propensity of small-sized SMEs.

⁷ Size is defined by the number of employees.

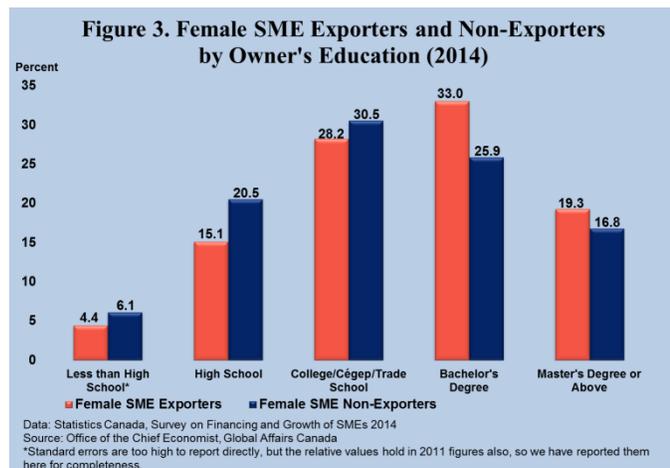
for smaller enterprises to reach global markets, it is still the case that smaller firms tend to focus on their local markets. This is reflected in the fact that the export propensity of medium-sized enterprises was three times that of micro-sized enterprises (Figure 1).⁸ However, the majority (53.4 percent) of SMEs were micro-sized, just over a third of SMEs were tiny (34.0 percent), 11.1 percent of SMEs were small, and only 1.6 percent of all SMEs were medium-sized in 2014. On average, only 11.8 percent of all SMEs exported in 2014.⁹



Female SME exporters were larger on average compared to female SME non-exporters (Figure 2). In 2014, over four times as many female SME exporters were medium-sized compared to female SME non-exporters. Almost twice as many female SME exporters were small enterprises compared to female SME non-exporters. Thus, there is a clear pattern across enterprise size: female exporters are larger than female non-exporters.

Owner's Education

Owner's education is a measure of skills and knowledge; SMEs whose owners have high levels of education are more likely to export.¹⁰ At the extremes, the export propensity of SMEs whose owners had a master's degree or above was 17.2 percent in 2014 and roughly 7.9 percent¹¹ for SMEs whose owners had less than high school education. 16.9 percent of SMEs whose owners had a bachelor's degree exported, 8.7 percent of those with college or equivalent education exported, and 8.4 percent of those with high school education exported.



Female exporting firms were more likely to

⁸ Micro-sized enterprises have between 1 and 4 employees, tiny enterprises have between 5 and 19 employees, small enterprises have between 20 and 99 employees and medium enterprises have between 100 and 499 employees.

⁹ Note, throughout this report, figures may not add to totals due to rounding errors from using aggregate data.

¹⁰ For SMEs, the decision to export is largely that of the primary business owner; hence, educated and experienced owners with growth oriented personalities are more likely to export (Martineau and Pastoriza, 2016). An owner's education and experience might not have the same direct link to exporting in large firms where the decision to export might not be solely that of the owner.

¹¹ Standard error is too high to report directly, but the relative values hold in 2011 figures also, so we have reported them here for completeness.

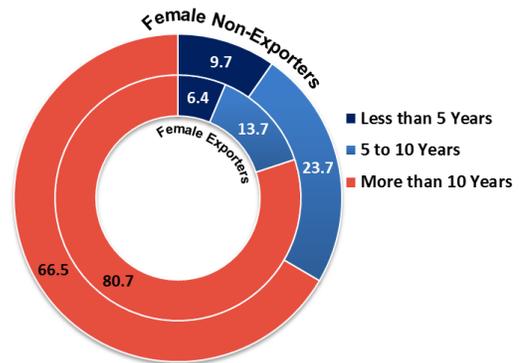
have owners with high levels of education compared to owners of non-exporting firms. In 2014, 52.3 percent of female SME exporters had owners with at least a bachelor’s degree (Figure 3). Comparatively, only 42.7 percent of female SME non-exporters had owners with this level of education. This difference in skills and knowledge, as proxied by level of education, is part of what enables female SME exporters to become export ready and bring their products or services to foreign markets.

Owner’s Management Experience

Like education, management experience is a signal of owner skills and knowledge. SME owners with more management experience might have greater knowledge of growth strategies, foreign markets, or other factors that could increase their likelihood of exporting. In the data, we see that owner’s management experience, measured as the number of years the SME owner has been a business owner or manager, is positively correlated with export propensity. SME owners with a significant amount of experience, defined as 10 or more years of managing experience, were more likely to export. In 2014, 12.8 percent of SMEs whose owners had a significant level of managing experience exported. Meanwhile, 9.3 percent and 7.2 percent of SMEs whose owners had 5 to 10 years of experience and less than 5 years of experience exported, respectively.

Female SME exporters were much more likely to have at least a decade’s worth of management experience under their belts compared to female non-exporters. In 2014, 80.7 percent of female SME exporters had 10 or more years of managing experience while this was true for only 66.5 percent of female non-exporters (Figure 4). Like education, more experience implies more skill and knowledge and could imply greater understanding of growth opportunities, of which exporting is certainly an important option.

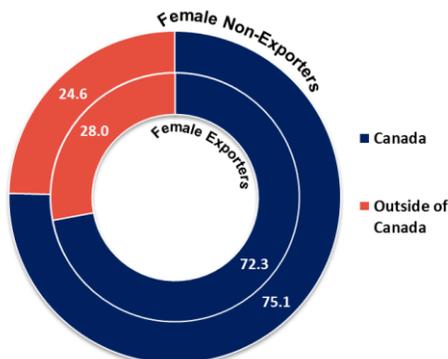
Figure 4. Female SME Exporters and Non-Exporters by Owner’s Managing Experience (%), 2014



Data: Statistics Canada, Survey on Financing and Growth of SMEs 2014
Source: Office of the Chief Economist, Global Affairs Canada

Owner’s Place of Birth

Figure 5. Female SME Exporters and Non-Exporters by Owner’s Place of Birth (%), 2014



Data: Statistics Canada, Survey on Financing and Growth of SMEs 2014
Source: Office of the Chief Economist, Global Affairs Canada

Businesses with owners born outside of Canada are somewhat more likely to export compared to SMEs with owners born in Canada. Foreign-born SME owners might be more likely to export given their foreign market knowledge, but they may also have less business opportunities compared to Canadian-born owners (Orser et al., 2010). That is, the relationship between foreign-born status and exporting is not necessarily obvious. Being born outside of Canada might make it more likely for an owner to seek international opportunities and it might make it harder for them to grow their business, a key component of exporting. Nonetheless, 14.1 percent of SMEs with owners born outside of Canada exported in 2014. This was higher than owners born in Canada whose export propensity was 11.0 percent that year.

Female SME exporters are somewhat more likely to be born outside of Canada compared to their non-exporting counterparts. In 2014, 28.0 percent of female SME exporters had owners who were born outside of Canada. Comparatively, 24.6 percent of female SME non-exporters had owners who were born outside of Canada (Figure 5). This is consistent with the finding that, on average, SMEs whose owners were born outside of Canada were somewhat more likely to export compared to those with owners born in Canada.

Exporters and Non-Exporters Participate in Vastly Different Industries; Relatedly, Exporters Tend to be Located in Ontario

Export propensity varies greatly by industry.¹² Generally speaking, some industries are more suited for exporting while the nature of other industries is more local. For example, 1.9 percent of construction SMEs exported in 2014 while 38.3 percent of manufacturing firms exported that year. The majority of exporting SMEs were located in three industries in 2014: professional and technical services (21.7 percent of exporting SMEs), manufacturing (20.9 percent), and wholesale trade (13.3 percent). This is reflected in the high export propensities of enterprises in these industries; as Table 1 shows, manufacturing SMEs were the most likely to export in 2014.

Industry	Share of All SMEs	Share of Exporters	Export Propensity
Construction	16.1	2.6	1.9
Other Services	7.4	2.9	4.6
Retail Trade	12.9	6.4	5.8
Health, Information, and Arts	19.2	11.4	7.0
Accommodation and Food Services	9.3	6.3±	7.9±
Natural Resources	6.2	5.8	10.9
Transportation and Warehousing	5.3	8.8	19.5
Professional and Technical Services	11.3	21.7	22.6
Wholesale Trade	5.8	13.3	26.9
Manufacturing	6.4	20.9	38.3
All Industries	100.0	100.0	11.8

±Use with caution, very high standard errors.

Female SME exporters participated in typically export-intensive industries much more frequently than their non-exporting counterparts. For example, 16.0 percent of female SME exporters were manufacturing enterprises in 2014. Meanwhile, only 2.4 percent of female SME non-exporters were manufacturing enterprises that year.¹³ Female SME non-exporters were more likely to be located in low export-propensity industries including the health, information, and arts and retail trade industries (Table 2).¹⁴

¹² Industry is defined according to the North American Industrial Classification System (NAICS). See appendix Article 2 for the complete industry list used in the 2014 Survey.

¹³ The large difference in share of female exporters in manufacturing (16.0 percent) and female non-exporters in manufacturing (2.4 percent) is also found in non-females. This is the result of very high export propensities in manufacturing.

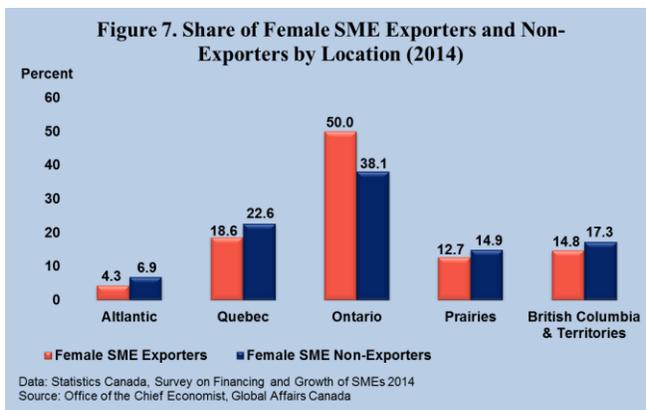
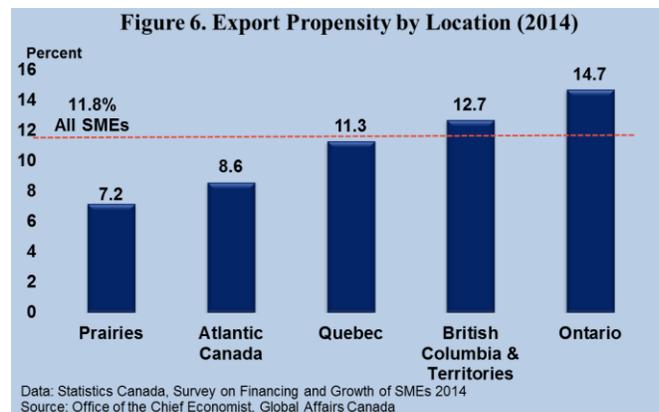
¹⁴ Data on female exporters and non-exporters in construction and natural resources were suppressed due to confidentiality.

Industry	Female Exporters (%)	Female Non-Exporters (%)
Other Services	4.5	11.4
Transportation and Warehousing	7.8	2.3
Wholesale Trade	7.8	2.8
Retail Trade	12.8	18.6
Manufacturing	16.0	2.4
Health, Information, and Arts	16.4	30.7
Professional and Technical Services	20.4	10.6
TOTAL*	85.6	78.8

*Note: The totals do not add to 100 percent as data for construction and natural resource SMEs is suppressed due to confidentiality.

Firm Location

SMEs located in Ontario had a greater propensity to export compared to SMEs in other provinces. While there is no economic reason as to why exporting SMEs should be located in certain areas of Canada more than others, there is a clear pattern in the data. In 2014, 14.7 percent of all SMEs in Ontario exported. This is likely related to the industry-mix of enterprises as Ontario is home to a higher share of manufacturing firms than other provinces and manufacturing firms have a higher propensity to export. SMEs located in British Columbia and the Territories also had above average export propensities in 2014, as shown in Figure 6. SMEs in Atlantic Canada and the Prairies had the lowest export propensities as only 8.6 percent and 7.2 percent of all SMEs located in those provinces exported, respectively. SMEs located in Quebec had roughly average export propensities in 2014.



Female SME exporters were more likely to be located in Ontario compared to their non-exporting counterparts. In 2014, 49.8 percent of female SME exporters were located in Ontario compared to only 38.1 percent of female SME non-exporters. Female SME non-exporters, on the other hand, were somewhat more likely to be located in all other provinces compared to female exporters, as seen in Figure 7. Again, the patterns across provinces are likely tied to industry.

Exporters are More Likely to be High-Growth Firms Compared to Non-Exporters

As previously established, larger firms are more likely to export. Given this, we might be concerned with the growth rate of firms. The stages theory of the firm argues that international involvement follows from successful growth in domestic markets (Johanson and Vahlne, 1997). From the data, we observe that the export propensity of high-growth firms is greater than that of firms with low growth levels (Table 3). Meanwhile, some research has suggested that female business owners are more likely to face real or perceived obstacles to growth.¹⁵ Others argue that female SME owners are less interested in growth as typically measured by revenue.¹⁶ While growth is dependent on many non-gender characteristics, if female SMEs are slower growing on average then they might be less likely to become large enough for exporting.

In 2014, 18.4 percent of high-growth¹⁷ firms exported. Comparatively, 17.0 percent of medium-growth firms exported and 10.2 percent of slow-growth firms exported. Furthermore, firms with no annual growth and firms with negative annual growth had export propensities of 10.7 percent and 11.8 percent, respectively. These propensities are reflected in the fact that 9.3 percent of all SMEs were high-growth firms while this was true for 14.2 percent of exporting SMEs (Table 3). The majority of enterprises grew between 1 percent and 10 percent between 2012 and 2014.

Female SMEs, however, were less likely to be high-growth firms compared to their non-female counterparts. In 2014, 6.4 percent of female SMEs were high-growth enterprises compared to 9.8 percent of non-female SMEs (see Table 3). Stratified growth rates by female exporters and female non-exporters were not available, so we cannot confirm whether or not female SME exporters posted faster growth rates than their non-exporting counterparts.

Growth Rate Per Year	Female SMEs	Non-Female SMEs	All SMEs	Exporting SMEs
Less than 0%	11.9	11.4	11.5	11.2
0%	19.5	18.4	18.5	16.5
Between 1% and 10%	51.9	49.3	49.7	42.4
Between 11% and 20%	10.3	11.2	11.1	15.7
20+%	6.4	9.8	9.3	14.2

A firm's growth rate could be related to numerous factors; such as, industry, owner preferences for risk/growth, or exporting habits, among others. It is possible that female SME owners select into slower growing or more stable industries. Another possible reason for differences in revenue growth is the owner's preferences for risk. If growing a business beyond its current size requires taking on more risk and female owners are more risk averse then they are going to be less likely to take the necessary steps to grow their business. Finally, the relationship between firm size and exporting is endogenous. Larger firms are more likely to export, but firms grow in size as a result of exporting. Female SMEs are less likely to export and this might also make them slower-growing on average.

One clear implication from the observed relationship between ownership gender and firm growth is that any policy using growth as a selection mechanism for firms to receive support will disproportionately advantage non-female enterprises. This could work against efforts to promote female participation in

¹⁵ See Orser (2007) for a review of the literature.

¹⁶ See Poggesi, Mari, and De Vita (2016).

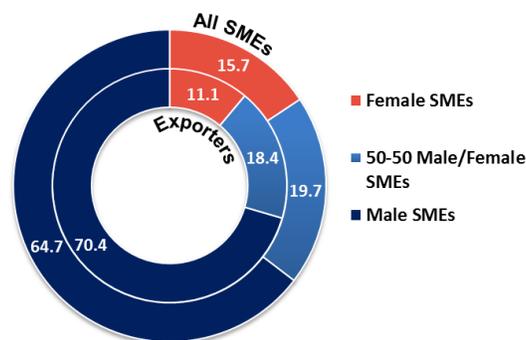
¹⁷ Growth is calculated as the average yearly growth in sales/revenues between 2012 and 2014. High growth firms had an average yearly revenue growth upwards of 20 percent between 2012 and 2014. Medium-growth firms grew between 11 percent and 19 percent. Slow-growth firms grew between 1 percent and 10 percent annually. Revenue growth is self-reported.

business and exporting. A complete discussion on enterprise growth and gender is beyond the scope of this paper, but it is an important factor in the success of SMEs both in general and in terms of their likelihood of exporting, which could warrant further research on the topic.

While Female SMEs Exhibit Trends Common to All SMEs, They are Underrepresented Amongst Exporting SMEs

Overall, female SMEs exhibit a number of characteristics that are common to SMEs in general; exporters are larger and have owners with more education and experience. Moreover, exporters are located in certain industries, such as manufacturing, and this holds for female exporters as well. Despite this, female SMEs were underrepresented amongst exporting SMEs in 2014. Female SMEs represented 15.7 percent of Canadian SMEs in 2014. Meanwhile, they only represented 11.1 percent of exporting SMEs, as shown in Figure 8. The difference between this 15.7 percent share of SMEs and 11.1 percent share of exporters is referred to here as *the gap* in female representation amongst exporting SMEs. As exporting firms outperform non-exporters along a number of dimensions, it is important to understand why this gap might exist. The following section discusses firm and ownership characteristics that help explain *the gap*.

Figure 8. All SMEs and Exporting SMEs by Gender (%) , 2014



Data: Statistics Canada, Survey on Financing and Growth of SMEs 2014
Source: Office of the Chief Economist, Global Affairs Canada

2. Explaining *the Gap*: Female Exporters Compared to Their Non-Female Counterparts

Theory on the possible mechanisms for why a gender-specific exporting bias would exist is limited; however, Orser et al. (2004) discuss how cultural and personal characteristics could result in sexist treatment of female business owners looking to export. Perhaps female owners are taken less seriously, believed to have less chance of future success or growth, or simply are not accepted within certain foreign business cultures. Any of these factors would decrease female SMEs' likelihood of exporting. Linking this observation to theory, network theory views markets as social connections between customers, suppliers, and competitors. It suggests that the internationalization of firms may rely on the personal networks of managers and owners, as well as other factors (Martineau and Pastoriza, 2016). If female owners experience real or perceived sexism that prevent them from expanding their networks, this could lead them to export less frequently.

Sexist attitudes towards female exporters are not the only possible mechanism that could explain female underrepresentation amongst exporting SMEs. Perhaps female SME owners are less interested in exporting on average. It may be the case that, controlling for all other factors, female SMEs simply

choose not to participate in the international economy as frequently as their non-female counterparts. This could be related to female appetite for risk. If participating in the global economy is seen as a risky endeavour and female SMEs are more risk averse on average then they would be less likely to export, all else equal. In general, an owner's socio-cognitive properties can influence the way a firm operates and can therefore influence its likelihood of exporting (Martineau and Pastoriza, 2016).

Unfortunately, the data provided do not cover networks or socio-cognitive characteristics, but these are some of the other mechanisms through which gender could impact export propensity. On one hand, it is beyond the scope of this report to determine the possible mechanisms that would result in female SMEs being underrepresented amongst exporters once all firm and non-gender ownership characteristics are controlled for. On the other hand, the data available does show that several firm and ownership characteristics play an important role. Namely, industry and size contribute to *the gap* in female representation amongst exporters while owner's education suggests *the gap* could be even larger.¹⁸

Firm Characteristics Contributing to *the Gap*: Industry and Size

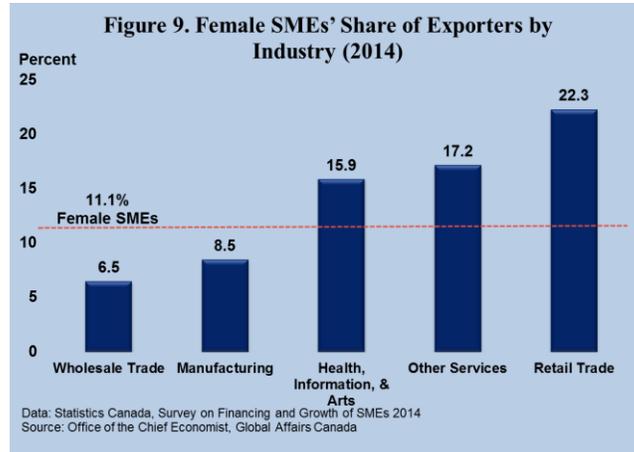
The top three industries by export propensity in 2014 were: manufacturing, wholesale trade, and professional and technical services (Table 4). Female SMEs, however, participated in industries with relatively low export propensities. In 2014, the top three industries for female SMEs were: health, information, and arts (29.6 percent), retail trade (18.2 percent) and accommodation and food services (12.7 percent). These three industries had export propensities of 7.0 percent, 5.8 percent, and 7.9 percent, respectively. Overall, given the industry-mix of female SMEs we should expect their share of exporters to be smaller on average. In other words, the industry-mix of female SME exporters supports the presence of *the gap*.

Industry	Female SMEs	Non-Female SMEs	Export Propensity
Construction	5.2	18.1	1.9
Other Services	10.9	6.8	4.6
Retail Trade	18.2	11.9	5.8
Health, Information, and Arts	29.6	17.3	7.0
Accommodation and Food Services	12.7	8.7	7.9±
Natural Resources	2.5	6.9	10.9
Transportation and Warehousing	2.7	5.8	19.5
Professional and Technical Services	11.4	11.3	22.6
Wholesale Trade	3.3	6.3	26.9
Manufacturing	3.6	6.9	38.3
All Industries	100.0	100.0	11.8

±Use with caution, very high standard error.

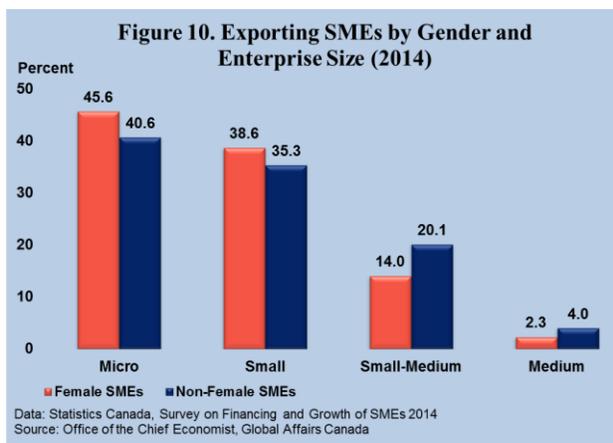
¹⁸ Both location and owners place of birth, while included in the previous section, do not contribute in either direction towards the underrepresentation of female exporters (at least at the bivariate level). First, the results by location are not consistent across years and have fairly high standard errors; thus, they are not reported. Second, the difference between female and non-female SMEs by place of birth is negligible and likely has no impact on *the gap*. Article 3 of the appendix reports the statistics for place of birth by female and non-female exporters, for the interested reader.

Accordingly, Figure 9 shows that female SMEs accounted for a larger than average share of exporting SMEs in retail trade, other services¹⁹, and the health, information, and arts industries in 2014. Meanwhile, female SMEs represented a significantly smaller share of exporters in wholesale trade and manufacturing, both of which are relatively export intensive. Hence, holding industry constant, we would expect *the gap* to be smaller.



Firm Size

Like industry, firm size also contributes to the underrepresentation of female SME exporters. Exporting firms are larger than non-exporters; however, female SMEs are smaller on average compared to their non-female counterparts. 58.2 percent of female SMEs were micro-sized in 2014 compared to 52.4 percent of non-female SMEs. Roughly one-third of female and non-female SMEs were tiny enterprises. Only 7.7 percent and 0.7 percent of female SMEs were small and medium enterprises, respectively. Comparatively, 11.7 percent and 1.8 percent of non-female SMEs were small and medium enterprises, respectively.



Therefore, the size differences between female and non-female SMEs support the fact that female SMEs were underrepresented amongst exporting enterprises.

As seen in Figure 10, the share of medium-sized non-female SME exporters was nearly double that of female SME exporters in 2014 (4.0 percent compared to 2.3 percent). Meanwhile, micro and tiny enterprises accounted for 75.9 percent of non-female SME exporters compared to 84.1 percent of female SME exporters. Thus, enterprise size further explains female SMEs' underrepresentation amongst exporting SMEs.

¹⁹ Other services include repair and maintenance services, personal and laundry services, religious, civil, professional and similar organizational services, and private household services. It excludes public administration.

Owner's Managing Experience

We know that exporting SMEs tend to have owners with more management experience than owners of non-exporting SMEs. Yet, female SMEs had less experienced owners on average in 2014 (Table 5). 67.6 percent of female SMEs had owners with significant management experience compared to 76.4 percent for non-female SMEs. On the other hand, female SMEs were more than one and a half times as likely to have an owner with less than 5 years of managing experience compared to non-female SMEs. While owners with between 5 and 10 years of experience are only somewhat less likely to participate in exporting, female SMEs were more likely than their non-female counterparts to be owned by an individual with that level of experience. All else equal, we would expect female SMEs to be less likely to export given that their managers are less experienced on average and less experienced owners are less likely to participate in exporting.

Years of Experience	Female SMEs	Non-Female SMEs	Female Exporters	Non-Female Exporters
Less than 5 Years	9.5	5.7	6.4	3.5
5 to 10 Years	22.9	17.9	13.7	14.9
More than 10 Years	67.6	76.4	80.7	81.5
TOTAL	100.0	100.0	100.0	100.0

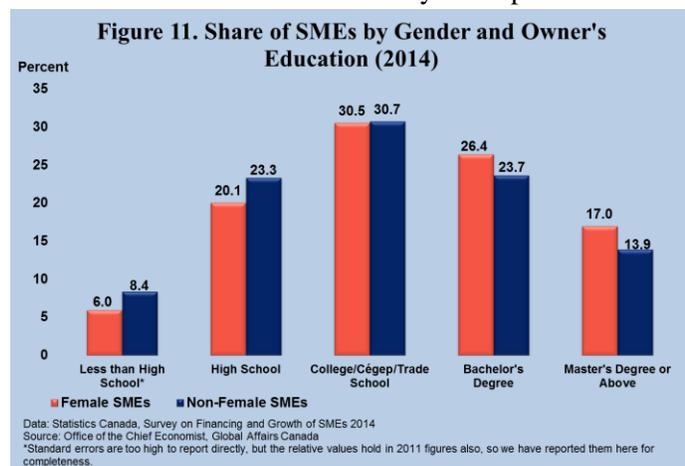
Interestingly, roughly the same share of female and non-female SME exporters had owners with 10 or more years of managing experience. Female and non-female SME exporters only differed significantly when their owners had less than 5 years of experience. Overall, it is possible that managing experience contributes to *the gap*, as female SMEs were more likely to have owners with few years of managing experience. However, female SMEs with experienced owners performed well by representing nearly 11.0 percent of all exporting SMEs with that level of experience.

Firm industry and size support the fact that female SMEs were underrepresented amongst exporters in 2014, but not all firm and owner characteristics do.

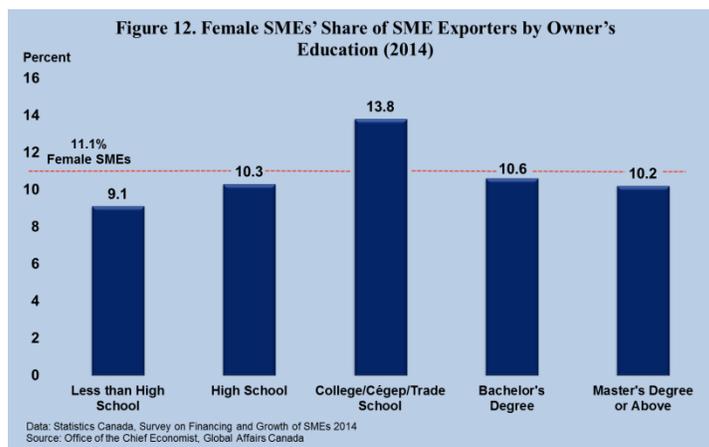
Opposing the Gap: Owner's Education

Whereas firm industry and size support the presence of *the gap* in female representation amongst SME exporters, owner's education suggests that female SMEs should be more likely to export than non-female SMEs.

Female SME owners were more educated than their non-female counterparts (Figure 11). In 2014, 43.4 percent of female SME owners had at least a bachelor's degree while this was true for 37.6 percent of non-female SME owners. All else equal, we would expect female SMEs to account for a larger share of SME exporters given that they are more educated and more educated owners have higher export propensities; hence, female SMEs' level of education is inconsistent with the underrepresentation of female exporting SMEs.



As shown in Figure 12, female SMEs represented a below average share of exporting SMEs amongst those enterprises with owners who had either a bachelor's degree or at least a master's degree. Therefore, female SMEs with the highest levels of education were less likely to be exporters despite the fact that highly educated SME owners are more likely to export. Yet, female SMEs punched above their weight amongst those exporters whose owners had a college education or equivalent. Some of these results could be further related to industry. We do not have information on degree awarded (i.e. subject), therefore some of this might be explained by the type of degree females obtained compared to the types of degrees non-females obtained.



3. Conclusions

Descriptive statistics available from the *Survey on Financing and Growth of SMEs* suggest that firm and owner characteristics play a large role in determining the export propensity of SMEs. As discussed in section one, female SMEs display many favorable traits common to all SMEs. On average, female SME exporters were larger and had owners with more education and experience compared to non-exporting female SMEs. Female SME exporters were somewhat more likely to be owned by individuals born outside of Canada compared to female non-exporters. Finally, female SME exporters participate in traditionally export-intensive industries more than their non-exporting counterparts. Altogether, female SME exporters follow similar patterns to what theory tells us we should expect of exporting firms in general.

Nonetheless, female SMEs were underrepresented amongst exporting firms in 2014. Section 2 showed that firm and ownership characteristics go a long way in explaining *the gap* in female representation amongst exporting SMEs. On average, female SMEs were smaller, participated in less export-intensive industries, and had less experienced owners compared to non-female SMEs. Meanwhile, female SMEs are more educated than their non-female counterparts, which should make them more likely to export.

While this might not be the case in other settings, it seems plausible that a modern day female-owned Canadian SME would have just as much opportunity to export as a business with equal ownership or male ownership, once these characteristics are controlled for. However, it is possible that female SMEs face greater challenges when going global or that they simply have less of an appetite for exporting. Keeping in mind that all of these firm and ownership characteristics are intricately linked, it is not possible to definitively state that a gap in female export participation truly exists, net of all non-gender factors.

Beyond the limitations of aggregate data, we should note that there are other important factors missing from this research. This report focused on export propensities, but another important area of research

might be the intensity of international engagement of enterprises. For example, analysis comparing the share of revenues from exporting by female and non-female SMEs could provide further insight into the nature of female SME participation in the global economy. Additionally, with firm industry and size playing such an important role in the likelihood of export participation, further research might explore the relationship between industry selection and firm growth by owner's gender. Nonetheless, it is clear that, while it is relatively good to be a woman in Canada today, females still have a long way to go to reach a representative level of participation in the formal economy. This includes gaining a representative share of all SMEs and of exporting SMEs. To support this, research will need to go beyond the focus of female exporting SMEs and look at female participation in business more broadly.

References

- Baldwin, J., & Gu, W. (2003). Export-market participation and productivity performance in Canadian manufacturing. *Canadian Journal of Economics*, 36(3), 634-657.
- Johanson, J., & Vahlne, J-E. (1997). The internationalization process of the firm – A model of knowledge development and increasing foreign market commitments. *Journal of International Business Studies*, 8(1), 23-32.
- Lileeva, A., & Trefler, D. (2010). Improved access to foreign markets raises plant-level productivity...For some plants. *The Quarterly Journal of Economics*, 125(30), 1051-1099.
- Martineau, C., & Pastoriza, D. (2016). International involvement of established SMEs: A systematic review of antecedents, outcomes and moderators. *International Business Review*, 25(2), 458-470.
- Mayer, T., & Ottaviano, G. (2008). The happy few: The internationalisation of European firms. *Intereconomics*, 43(3), 135-148.
- Melitz, M. J. (2003). The impact of trade on intra-industry reallocations and aggregate industry productivity. *Econometrica*, 71(6), 1695-1725.
- Orser, B. (2007). Canadian women entrepreneurs, research and public policy: A review of the literature. *University of Ottawa Telfer School of Management*. Retrieved from:
<http://www.telfer.uottawa.ca/documents/pdf/other/ORSER-2007LitReview.pdf>
- Orser, B., Spence, M., Riding, A., & Carrington, C. (2010). Gender and export propensity. *Entrepreneurship Theory and Practice*, 34(5), 933-958.
- Poggesi, S., Mari, M., & De Vita, L. (2016). What's new in female entrepreneurship research? Answers from the literature. *International Entrepreneurship and Management Journal*, 12(3), 735-764.

Appendix

Article 1: Survey on Financing and Growth of Small and Medium Enterprises

According to Statistics Canada:

The objective of this survey is to collect general characteristics on small- and medium-sized businesses and their financing activities. It collects information on the types of debt, lease and equity financing that small and medium enterprises (SMEs) rely on. Furthermore, it collects information on any recent attempts to obtain new financing. It also collects additional information about circumstances that affect the way these businesses operate.

Businesses are selected by Statistics Canada from their Business Register. They are selected by simple random sample without replacement.

The target population of the survey includes enterprises with between 1 and 499 employees and with more than \$30,000 in gross revenue. It excludes non-profits, joint ventures and government agencies. Enterprises in the following NAICS classifications are excluded: utilities (22); finance and insurance (52); management of companies and enterprises (55); educational services (61); public administration (91); automotive equipment rental and leasing (5321); commercial and industrial machinery and equipment rental and leasing (5324); out-patient care centres (6214); medical and diagnostic laboratories (6215); other ambulatory health care services (6219); general medical and surgical hospitals (6221); psychiatric and substance abuse hospitals (6222); specialty (except psychiatric and substance abuse) hospitals (6223); and community food and housing, and emergency and other relief services (6242).

Responding to the Survey is optional. The Survey ran from February 2015 to May 2015.

After restricting by size and other criteria (industry, gross revenue above \$30,000 etc.), the base sample was 23,169 SMEs in 2014.

For more detailed information on the methodology, see Statistics Canada's detailed information at:

<http://www23.statcan.gc.ca/imdb/p2SV.pl?Function=getSurvey&SDDS=2941>

Article 2: NAICS Industries in the 2014 Survey

Industry Group*	NAICS Codes
Natural Resources	11, 21
Construction	23
Manufacturing	31-33
Wholesale Trade	41
Retail Trade	44-45
Transportation	48-49
Professional and Technical Services	54
Accommodation and Food Services	72
Other Services	81
Health, Information, and Arts	51, 53, 56, 62, 71

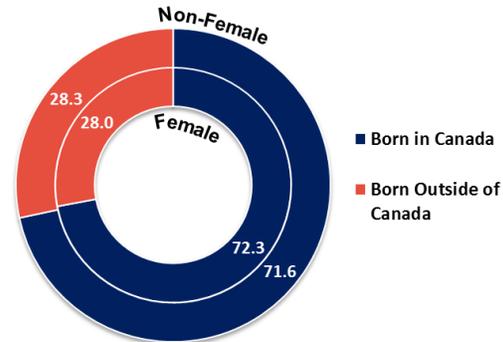
*Names have been abbreviated

Article 3: Female and non-female SME owners are equally likely to be born outside of Canada

While we know that firms with owners born outside of Canada are marginally more likely to export than those with owners born in Canada, female and non-female owners were equally likely to be born abroad.

In 2014, 24.9 percent of female SMEs had owners born outside of Canada compared to 23.3 percent of non-female SMEs. Hence, over three-quarters of both female and non-female SMEs had Canadian-born owners in 2014. Therefore, based on owner’s place of birth, female and non-female SMEs should have similar export propensities and owner’s place of birth should have little impact on *the gap*. Indeed, roughly 28 percent of both female and non-female SMEs with owners born outside of Canada exported in 2014 (Figure A3).

Figure A3. Exporting SMEs by Gender and Owner’s Place of Birth (%), 2014



Data: Statistics Canada, Survey on Financing and Growth of SMEs 2014
 Source: Office of the Chief Economist, Global Affairs Canada