Gender and the use of external business advice: a Swedish study

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Abstract
Purpose – The aim of this study is to examine whether there are significant differences between female and male entrepreneurs’ use of consultation during business start-ups.
Design/methodology/approach – Using several statistical tools, including ANOVA and seemingly unrelated regressions, empirical analyses are conducted on a unique and firm-level panel database of 837 female- and 1926 male-owned active small firms.
Findings – The results indicate that gender may be an important variable in the use of advice among small business owners in Sweden. Female owners in this study are shown to be more eager than male owners to use external business advice, and do so to a higher extent.
Practical implications – One implication of this study is that firms may not be able to use all business advice types simultaneously during their start-up stage, so an ordered list of consultancy services would help them prioritize and adjust their needs accordingly. Because the use of business advice is context-based, the findings of this study may not be generalized to firms in other countries. This paper shows some gender-based attributes/features relating to the use of business advice, which need to be better integrated into policymaking for the future assistance of small businesses.
Originality/value – This article focuses on an important issue and is unique partly because few studies have examined the relationship between gender and external business advice. By explicitly and empirically examining this issue, this article makes a contribution to the small- and medium-sized enterprises’ literature.

1. Introduction
At present, there is a global entrepreneurial gender gap, in which female-owned businesses are severely under-represented compared to male-owned businesses (Reynolds, 2012). Some authors (Minniti and Nardone, 2007) argue that there is a gender gap in the number of small and medium-sized enterprises (SMEs) that are caused by various structural or individual factors such as discrimination against women or gender-based characteristics (Carter and Allen, 1997; Carter et al., 2007; Huang and Kisgen, 2008). One general assumption, for example, is that women are discouraged from starting businesses due to discrimination tendencies in the society, especially discrimination by banks (cf. Kon and Storey, 2003). Although this
may be true, it may also be partly connected to the issue of risk aversion that is common for many individuals regardless of gender (Kirk and Belovics, 2006; Van Praag and Cramer, 2001), and the fact that female-owned businesses show higher rate of failures (Block and Sandner, 2009). Furthermore, women’s lack of resources – including financing, means of investment, less business profit and the difficulties they face when moving into and throughout business – is on-going, which might create further risk aversion (cf. Charness and Gneezy, 2012; Croson and Gneezy, 2009; Watson and Robinson, 2003), and discourage many other potential female entrepreneurs from even starting. Nevertheless, there are gender-based differences in terms of ability to access available resources both prior to and after business start-up (e.g. Kon and Storey, 2003; Muravyev et al., 2009).

Carter (2000) suggested that these issues have various implications for advisory services, and several other authors argue that female entrepreneurs not only need good mentoring programs (Orhan and Scott, 2001; Sarri and Trihopoulou, 2005) but also good mentors (Barrett, 2006; Scanlon, 2009).

As a pioneer country, Sweden paid attention to these gender-based dissimilarities and difficulties, and in 1993 launched a project in which female advisors helped aspiring businesswomen in 62 municipalities in northern and mid-Sweden (Nilsson, 1997). Another Swedish study by Tillmar (2007) on a business assistance program confirms that such programs are necessary for female entrepreneurs to give them the same opportunities as their male counterparts, and enable them to resist intended and unintended discrimination against them. A relatively recent study conducted in four Swedish regions by Lundström and Kremel (2009, 2011) showed that consultancy programmes have a positive impact on businesses, especially newly formed businesses. Furthermore, businesses run by women, immigrants and younger owners (younger than 31 years old) showed more need for these programs than those run by men, while middle-aged men showed the least need for such help.

In this paper, we attempt to examine whether there are any significant differences between female and male entrepreneurs’ use of external business advice among Swedish firms during the start-up stage. The paper examines the influence of gender on the use of external business advisory services at the start-up stage.

Business advice is a source of critical competency for business survival, competitiveness and growth (Gooderham et al., 2004; Johnson et al., 2007). Nevertheless, due to gender-based differences in the small business sector, female and male entrepreneurs might apply for and use different types of consultancy, and these have different impacts on their businesses, both in the short- and long-term. According to Gooderham et al., and Johnson et al., the use of consultation and advisors hopefully makes it possible for female-owned businesses to compete, survive and grow, and thereby, decreases this gender gap in various respects. It may also motivate other females to start their own businesses.

The study consists of five sections. Section 1 provides an introduction to the study and its objectives. Section 2 briefly reviews previous literature related to the topic and presents our hypotheses. Section 3 presents the data source, sample selection and statistical methods used. The results of the empirical analyses are reported and interpreted in Section 4. Finally, Section 5 provides the conclusion, including our key findings and contributions to the field.
2. Literature review

2.1 The gender perspective in business

Differences between men and women in the business world can be studied critically in the light of a gender perspective. A classic gender theory based on de Beauvoire (1949) considers differences between men and women in society as not naturally or biologically given but based on a social construction that divides them in two categories/social genders with different social roles: the first gender (man) which is the dominated norm, and the second gender (woman), which is subordinated; the understanding is that the latter should adjust herself to the (dominated) norm. This relationship of order and subordination permeates the society’s entire structure from top to bottom; it favors the norm (men, the dominated gender) and allocates it more resources, attentions and visibility than the subordinated gender (women). Men, in other words, have more power in all circumstances. This problematic relationship should, therefore, be problematized and questioned; this can be done in the business world by empirical studies, where gender should be used as an analytical tool to highlight inequalities between these two categories. Despite distinctions between the terms, in this paper, we use both “men” and “women”, respectively, as synonymous to social gender and construction and not as biological differentials.

The process of making women entrepreneurs visible in business research and problematizing gender relations in the business sector began in the late 1970s with some Anglosaxion pioneers (Decarlo and Lyons, 1979; Hisrich and Brush, 1984; Goffee and Scase, 1985; Scott, 1986; Bowen and Hisrich, 1986), as well as Scandinavian commentators (Holmquist and Sundin, 1981, 1982; Sundin and Holmquist, 1989). Later, other researchers continued similar studies on gender inequalities in the small business sector. Recently, a large number of these studies have problematized the issue of power in the sector by touching on various aspects (Ahl, 2004, 2006; Berglund, 2007; Bourne, 2010; Ashe and Treanor, 2011; Achtenhagen and Tillmar, 2013). Studies by, for example, Pettersson (2002) and Lewis and Massey (2011) show how women’s efforts in the small business sector are invisible or valued lower than those of men. One important issue is the gender gap in the business start-up, motivation and intention (Humbert and Drew, 2010; Haus et al., 2013). Consequently a part of earlier studies (Sena et al., 2012; Watson et al., 2009) deals with the question of whether such gender gap is caused by women’s greater problems with funding. A large number of previous studies (Brush et al., 2004; Fuller-Love et al., 2006; Muravyev et al., 2009), however, have confirmed that women face greater difficulties than men in receiving bank loans. Other studies (Klyver and Grant, 2010) point to factors such as women’s weaker and less influential networks as reasons for their lower levels of willingness to start a business, while other researchers (Foss, 2010; Garcia and Carter, 2009) find no difference between female and male entrepreneurs in their networks. Some of the studies (Kjennerud and Svare, 2014) try to discover whether there are gender differences in growth ambitions, or business performance (Zolin et al., 2013).

2.2 Previous research on business advice

By the early 1990s, Chrisman et al. (1990) had highlighted a marked lack of research into business assistance for female entrepreneurs. The lack of such research remains, as our specific database search for relevant literature on gender-based consultancy differences did not furnish many results. This finding is confirmed by several studies in recent
years (St-Jean and Audet, 2009; Sarri, 2011; Thorpe et al., 2005). Thus, it is hoped that our study will contribute more knowledge on this deficient area of research.

Conversely, we found a remarkable amount of research within the field of business consultancy. While earlier and recent research mostly emphasize how consultation by professional business advisors has a positive effect on businesses (cf. Cumming and Fischer, 2012), a literature review by Dyer and Ross (2007) confirms that, according to other authors, such professional assistance has limited impact on a business’ success. Also, Klyver and Hindle (2010), based on their Danish study, state that professional financial advisors only play a minor role in the entrepreneurial process before the venture is actually started, and that the ties entrepreneurs have with their financial advisors are weaker than with others in their network. Nevertheless, they conclude that such professional advisors are important resource providers to entrepreneurs during their entrepreneurial process, and that their resource providing includes emotional and moral support.

Chrisman et al. (1987), in their study centered around a public consultancy program in the USA, conclude that initiating consultancy programs prior to start-up has a positive impact on the business sector overall, e.g. more start-ups than expected, better survival rates and more growth in terms of revenue and new jobs created. Outsider consultancy in particular works as a knowledge and information resource for entrepreneurs, and has a positive overall impact on business in the long-term (Chrisman and McMullan, 2000; Parker, 2007; cf. Chrisman et al., 2002; 2005). In a separate study, Chrisman (1989) suggests that strategic assistance from these programs/advisors is more significant for the business than administrative or operational assistance.

Other research confirms that such programs have a positive impact on both the business itself (Robson and Bennett, 2000; Rotger et al., 2011) and business creation (Peake and Marshall, 2006). Research by Mole (2002) emphasizes that, due to the nature of their relationship, accountants and solicitors have more of an impact on business than personal business advisors do.

2.3 Previous research on gender and business advice
Use of external business advice can be studied in a gender context and with a focus on differences or similarities between female and male business owners. As discussed earlier in this paper, female business owners are globally subordinated by male business owners in a number of business aspects that might help justify the usefulness of such services for the former group. Previous and recent research indicates, for example, that female entrepreneurs, compared to their male counterparts, lack certain knowledge resources, such as business education, training or previous business experience and information (cf. Aldrich, 1989; Carter, 1989; Greene et al., 2001; Verheul and Thurik, 2001; Irwin and Scott, 2010; Price and McMullan, 2012), which might explain why they choose to use the support of external advisors. For example, female owners’ previous experience with business is considered to contribute to their successful business performance (Buttner, 1993). Due to these gender differences in business sector, and especially in light of problems faced by women, recent research (O’Carroll and Millne, 2010; Orser et al., 2012; Lindholm Dahlstrand and Polities, 2013) supports the idea that society needs specially tailored business support programs such as mentorship, consulting and idea incubation for women.
Other important factors that might justify the usefulness of such advice services in a gender perspective include business networks, prior and after business start-up. For example, a study by Klyver and Grant (2010) in 35 countries confirms that there are gender differences in both entrepreneurial networking and participation, i.e. women are less likely than men to know other entrepreneurs who might encourage them directly or indirectly to start a business. The authors conclude that women lack role models (Ibid).

A part of earlier research also concerns women entrepreneurs’ and men entrepreneurs’ access to influential networks that might provide them with valuable entrepreneurial information and advice, as well as encouragement. Research by Brush (1992) and Manolova et al. (2007) confirm that women entrepreneurs have weaker networks and especially lack access to influential social networks. A recent study by Norwegian and Swedish researchers (Bogren et al., 2013) confirms that women entrepreneurs generally prefer personal networks (contact with other entrepreneurs) than business networks. Also a recent British study (Logan, 2014) confirms that one contributing factor in older women’s success in entrepreneurship has been their access to a large female network besides family support. On the other hand, studies by Garcia and Carter (2009) and Foss (2010) emphasize that there are no major gender differences between business owners in their resource mobilization through their business networks, especially in terms of advice. Nevertheless, Garcia and Carter (2009) conclude that women business owners need to mobilize their emotional capital (such as encouragement and spiritual support), contact-referrals and knowledge more than their male counterparts. A more recent study by Klyver (2011) also shows that both women and men entrepreneurs receive emotional support from family members in their entrepreneurial networking. The difference, however, is that female focal entrepreneurs are more likely to involve family members (especially female members) who are not partners, while male focal entrepreneurs are more likely to involve male members. Females are also more likely to provide emotional support (Ibid). The women entrepreneurs surveyed in Logan’s (2014) study generally had the opinion that access to more formal external advice would be helpful in their business growth.

It is important to study both the perception and impact of external business advice in a gender perspective. Several earlier studies show how women and men perceive consulting by external advisors. Using business advice is something that concerns those with established businesses (Nahavandi and Chesteen, 1988), as well as those wishing to become business owners (cf. Klyver and Grant, 2010). For example, Chrisman et al. (1990) compared how women and men entrepreneurs use such external advisors in publicly funded programs. They found that both genders showed identical needs and used identical assistance, and that both were equally satisfied with the help given. As such, Chrisman et al. (1990) suggested that female entrepreneurs are not disadvantaged compared to male entrepreneurs. An earlier study by Birley et al. (1987) showed that women who attended business start-up courses were more likely to undertake their business later than men attending the same courses. The authors concluded that the advice these women received on these courses strengthened their motivation and encouraged them to get going. An evaluation of a mentoring program directed at current and potential female entrepreneurs showed that these women had a positive perception of the obtained knowledge, advice and support for their entrepreneurship (Sarri, 2011). A recent study by Sciglimpaglia et al. (2013) confirms that women show more interest in
operational assistance, strategic assistance and administrative assistance than other types of assistance suggested by advisors.

Business owners also need to deal with many issues that have a future impact on their business’ performance, survival and growth, particularly prior to start-up. It is at this stage that a professional business advisor can help most in finding answers to these questions. However, the most important reason for using external business advisors is the high risk of failure among new businesses, particularly those started by women (Chrisman et al., 1990; Robinson, 1982). Similarly, Wagner (2004) does not exclude the notion that women are more affected by fear of failure prior to start-up. Women in general are considered to be more risk averse than men in financial decisions that concern their households (Jianakoplos and Bernasek, 1998). Also, when it comes to financial and investment decisions in business, fear of risk-taking is higher among women entrepreneurs than men entrepreneurs (Watson and Robinson, 2003; Charness and Gneezy, 2012). This fear can be partly explained by the fact that businesses run by women are concentrated in the most highly competitive sectors (Parker, 2009). However, such risks can be eliminated or reduced via a business plan, valuable financial and managerial advice and information about the market and networks (Robinson, 1982; Dandridge and Sewall, 1978; Hansen, 1995; Schell, 1982) that could be delivered by a professional advisor. The information business owners provide to their banks when receiving financial assistance is important regardless of gender (Fraser, 2005), yet it is even more significant for women prior to or after start-up. Women have shown great interest in becoming entrepreneurs (Parker, 2010), but such constraints can negatively affect their motivation to start. A detailed business plan by an external advisor can provide a bank with a vision and strategy that can greatly increase a business proposal’s chance of approval (Bruke et al., 2010); this is particularly true for women, who face higher rejection rates from banks than men (Brush et al., 2004; Fuller-Love et al., 2006).

Based on the above, we derived the following hypotheses:

H1. The use of external business consultation differs significantly between start-up businesses owned by women and those owned by men.

H2. The owners’ gender significantly influences their use of specific types of external business advisory services at the start-up stage.

3. Data sources and methods
3.1 Data sources and sample selection
This study is based on a unique and firm-level panel database created by the Swedish Small Business Forum through telephone interviews in autumn 2008. The aim for collecting these data was to study the demand for external business advice by young and start-up firms. The firms included in the database consisted of young, small firms based in four regions located in south-east Sweden. The initial sample consisted of 2,832 firms; firms with missing gender variables were removed from the sample, leaving a final sample of 837 female-owned and 1,926 male-owned active small firms. The target population comprised all independent, non-financial active micro firms with fewer than ten employees. The definition of micro firms used in this paper is similar to that of Statistics Sweden (2008). Section 5.1.1 provides an extensive description of the sample.
3.2 Methods
To test the hypotheses formulated previously, several statistical analyses were utilized, including ANOVA and seemingly unrelated regressions (SUR). As an initial step, a univariate descriptive analysis was performed to analyze and present the sampled firms and variables included in the study. Subsequently, ANOVA was carried out to identify the significant and relevant dependent variables and thereby reduce their number. Thus, the number of dependent performance variables in the model was reduced from 20 to 8 business advice variables.

Based on the results of the ANOVA, a correlation analysis and SUR were conducted to examine the impact of gender on the dependent variables. The explanation of using SUR was to avoid the disadvantages of conventional regression, risk for heteroskedasticity, and/or correlation between error terms and variables included in model (Zellner and Theil, 1962).

The estimation equation in the SUR analysis can be shown as follows:

\[ Y_i = \alpha_0 + \beta_1 (X1) \]

where \( Y_i \) is the type of advice chosen by the owners (on a scale of 1-4; 1 = not at all; 4 = very much); \( \alpha_0 \) is constant, and \( X1 \) is gender (1 = woman, 2 = man).

4. The empirical results
4.1 The empirical analysis and results
4.1.1 The descriptive statistics of the sample. The univariate descriptive statistics of the sample and relevant variables are presented and analyzed in this section. Table I presents the univariate descriptive statistics of the characteristics of the sample, including the owner’s age, college education, and size of the female and male-owned firms in terms of number of employees. As shown, the owners are relatively young, and the mean ages of the owners (approximately 42.5 years) did not differ significantly between men and women owners at a 5 per cent significance level (\( F \) test = 0.16, \( \rho = 0.68 \)). Moreover, female owners have an education level roughly similar to that of male owners, and the mean college education levels do not differ significantly (\( F \) test = 0.00, \( \rho = 0.98 \)). Male-owned firms tend to be larger, as they have more employees than female-owned firms. However, the size of male- and female-owned firms in terms of number of employees differs significantly (\( F \) test = 0.686, \( \rho = 0.01 \)). The age of firms also varies a little as female-owned firms were found to be younger than male-owned firms; however, the difference was not statistically significant (\( F \) test = 3.87, \( \rho = 0.05 \)). In short, the only significant difference in the sample has been the size of firms in terms of more employees for male-owned firms.

In terms of industry affiliation, 57 per cent of all firms were categorized as service companies, 18 per cent as manufacturing firms, 12 per cent as retail firms and the rest (13 per cent) as other industries, including transport, construction, restaurants and consultancies. Compared with male-owned firms, female-owned firms were clearly concentrated in the services, restaurant and consultancy sectors, and under-represented in the manufacturing, construction and transport sectors. This is also a sign of gender segmentation in the small business sector and the choice of activity branches by men and women entrepreneurs. Service sectors are obviously highly represented in the sample, reflecting the fact that most new Swedish SMEs are service firms.
4.1.2 The descriptive statistics of the distribution of advice by type. As shown in Table II, female and male owners in this study had the possibility to apply for and use advice in 20 advice type areas. As can be observed, two types of advice – Q8: Advice on export question; and Q9: Advice in patent issues – had a higher mean value among male owners compared to female owners. However, the differences were not statistically significant. On the other hand, the mean values of eight types of external business advice are significantly higher for female owners than their male counterparts. Thus, it can be suggested that women owners use these external business advice services more frequently than male owners (see also Table III).

4.1.3 Test of the statistical significance: ANOVA test. A significance test was conducted to ascertain whether there is a statistically significant difference between female and male groups with regards to the use of various types of advice. The null hypothesis is stated as follows:

\[ H_0 \] There is no significant difference between female and male groups concerning the use of various types of advice at the start-up stage.

As presented in Table III, and consistent with the \( H_1 \), the results of the ANOVA show that statistically significant differences are found between female and male groups regarding the use of various types of advice (at a 5 per cent level): Q1, Q2, Q4, Q5, Q7, Q11, Q17 and Q19, and that female owners more eagerly used these compared to their male counterparts.

### Table I.
Mean, standard deviation number of observations and ANOVA tests related to owner and firm characteristics

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<th>No. of employees</th>
<th>Firm age</th>
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**ANOVA**

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**Note:** *ANOVA significant at a 0.05% level*
Table II.

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<td>1,897</td>
<td>1,891</td>
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<td>1,895</td>
<td>1,889</td>
<td>1,897</td>
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<tr>
<td>Total</td>
<td>Mean</td>
<td>1.57</td>
<td>1.50</td>
<td>2.28</td>
<td>1.46</td>
<td>2.21</td>
<td>1.26</td>
<td>1.58</td>
<td>1.14</td>
<td>1.13</td>
<td>1.51</td>
<td>1.37</td>
<td>1.48</td>
<td>1.22</td>
<td>1.52</td>
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<td>1.39</td>
<td>1.48</td>
<td>1.32</td>
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<tr>
<td></td>
<td>SD</td>
<td>0.87</td>
<td>0.83</td>
<td>1.10</td>
<td>0.77</td>
<td>1.05</td>
<td>0.63</td>
<td>0.92</td>
<td>0.47</td>
<td>0.45</td>
<td>0.83</td>
<td>0.72</td>
<td>0.82</td>
<td>0.57</td>
<td>0.83</td>
<td>0.77</td>
<td>0.74</td>
<td>0.92</td>
<td>0.68</td>
<td>0.89</td>
</tr>
</tbody>
</table>

**Notes:** Scale of variables from 1 to 4 (1 = Not at all; and 4 = very much). Key: Q1: Advice on strategy, goals or visions; Q2: Help with business plans, including market analysis; Q3: Advice on accounting; Q4: Advice on marketing or sales; Q5: Advice on marketing or sales; Q6: Advice on local and/or land issues; Q7: Training on how to start your own business; Q8: Advice on export question; Q9: Advice in patent issues; Q10: Advice on opportunities for financial aid or grants; Q11: Help developing the business; Q12: Advice on the choice of business form; Q13: Advice on product development and design issues; Q14: Advice on legal issues, such as contractual or personnel issues; Q15: Advice on IT issues and technical support; Q16: Help with permit applications; Q17: Help with building a website; Q18: Help to make contact with other companies; Q19: Help to get a mentor to bounce ideas off; and Q20: The help of a knowledgeable person.
By correlating the results of the descriptive statistics of the distribution of advice by type and ANOVA, it can be concluded that women entrepreneurs included in this study rely more on certain types of advice than their male counterparts, including:

- advice on strategy, goals or visions (Q1);
- help with business plans, including market analysis (Q2);
- advice on marketing or sales (Q4);
- advice on tax (Q5);
- training on how to start your own business (Q7);
- help developing the business (Q11);
- help with building a Website (Q17); and
- help to get a mentor to bounce ideas off (Q19).

However, the differences in 12 other types of advice used are not statistically significant.

### 4.2 Results of the correlation analysis

Based on the descriptive and ANOVA analyses, and to investigate the relationship between the independent variable, gender and the eight dependent variables, a correlation analysis was performed. Table IV displays the results of the correlation analysis; it indicates a negative and significant correlation between gender and the eight dependent variables. Thus, the results imply that female owners tend to use these eight types of advice more compared to their male counterparts. Moreover, because all the correlation coefficients of the variables are small, there is no indication of multi-collinearity among variables in the sample.

### 4.3 Results of SUR

This section presents the results of the estimation of the SUR, establishing the relationship between gender and the advice services chosen by the entrepreneurs.

The results of the SUR model reveal that gender has a significant and negative impact on eight of the dependent variables, and thereby has the ability to explain the
Table IV. Results of the correlation analysis of variables included in the study.

<table>
<thead>
<tr>
<th>Variables</th>
<th>Gender</th>
<th>Q1</th>
<th>Q2</th>
<th>Q4</th>
<th>Q5</th>
<th>Q7</th>
<th>Q11</th>
<th>Q17</th>
<th>Q19</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td>1.00</td>
<td>-0.099**</td>
<td>-0.109**</td>
<td>-0.102**</td>
<td>-0.064**</td>
<td>-0.122**</td>
<td>-0.060**</td>
<td>-0.075**</td>
<td>-0.055**</td>
</tr>
<tr>
<td>Significance</td>
<td>0.000</td>
<td>0.000</td>
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<td>0.000</td>
<td>0.000</td>
<td>0.000</td>
<td>0.000</td>
<td>0.000</td>
</tr>
<tr>
<td>Q1</td>
<td>-0.099**</td>
<td>1.00</td>
<td>0.637**</td>
<td>0.516**</td>
<td>0.248**</td>
<td>0.352**</td>
<td>0.494**</td>
<td>0.161**</td>
<td>0.401**</td>
</tr>
<tr>
<td>Significance</td>
<td>0.000</td>
<td>-</td>
<td>0.000</td>
<td>0.000</td>
<td>0.000</td>
<td>0.000</td>
<td>0.000</td>
<td>0.000</td>
<td>0.000</td>
</tr>
<tr>
<td>Q2</td>
<td>-0.109**</td>
<td>0.637**</td>
<td>1.00</td>
<td>0.526**</td>
<td>0.237**</td>
<td>0.406**</td>
<td>0.514**</td>
<td>0.176**</td>
<td>0.403**</td>
</tr>
<tr>
<td>Significance</td>
<td>0.000</td>
<td>-</td>
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<td>0.000</td>
<td>0.000</td>
<td>0.000</td>
</tr>
<tr>
<td>Q4</td>
<td>-0.102**</td>
<td>0.516**</td>
<td>0.526**</td>
<td>1.00</td>
<td>0.242**</td>
<td>0.353**</td>
<td>0.480**</td>
<td>0.225**</td>
<td>0.339**</td>
</tr>
<tr>
<td>Significance</td>
<td>0.000</td>
<td>0.000</td>
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<td>0.000</td>
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<tr>
<td>Q5</td>
<td>-0.064**</td>
<td>0.248**</td>
<td>0.237**</td>
<td>0.242**</td>
<td>1.00</td>
<td>0.265**</td>
<td>0.187**</td>
<td>0.150**</td>
<td>0.213**</td>
</tr>
<tr>
<td>Significance</td>
<td>0.000</td>
<td>0.000</td>
<td>0.000</td>
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<tr>
<td>Q7</td>
<td>-0.122**</td>
<td>0.352**</td>
<td>0.406**</td>
<td>0.353**</td>
<td>0.265**</td>
<td>1.00</td>
<td>0.377**</td>
<td>0.127**</td>
<td>0.281**</td>
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<tr>
<td>Significance</td>
<td>0.000</td>
<td>0.000</td>
<td>0.000</td>
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<tr>
<td>Q11</td>
<td>-0.060**</td>
<td>0.494**</td>
<td>0.514**</td>
<td>0.480**</td>
<td>0.187**</td>
<td>0.377**</td>
<td>1.00</td>
<td>0.198**</td>
<td>0.421**</td>
</tr>
<tr>
<td>Significance</td>
<td>0.000</td>
<td>0.000</td>
<td>0.000</td>
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<td>0.000</td>
<td>0.000</td>
<td>0.000</td>
<td>0.000</td>
</tr>
<tr>
<td>Q17</td>
<td>-0.075**</td>
<td>0.161**</td>
<td>0.176**</td>
<td>0.225**</td>
<td>0.150**</td>
<td>0.127**</td>
<td>0.198**</td>
<td>1.00</td>
<td>0.158**</td>
</tr>
<tr>
<td>Significance</td>
<td>0.000</td>
<td>0.000</td>
<td>0.000</td>
<td>0.000</td>
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<td>0.000</td>
<td>0.000</td>
<td>0.000</td>
<td>0.000</td>
</tr>
<tr>
<td>Q19</td>
<td>-0.055**</td>
<td>0.401**</td>
<td>0.403**</td>
<td>0.339**</td>
<td>0.213**</td>
<td>0.281**</td>
<td>0.421**</td>
<td>0.158**</td>
<td>1.00</td>
</tr>
<tr>
<td>Significance</td>
<td>0.000</td>
<td>0.000</td>
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</tr>
</tbody>
</table>

**Note:** **Correlation is significant at 0.01% and 0.05% levels, respectively (two tailed)**
choice of advice services (Table V). In other words, it means that women, to a greater extent, than men use advice on strategy, business plans, marketing or sales, tax, training on how to start a business, developing the business, building a Web site and help in getting a mentor to bounce ideas off. Thus, the findings provide evidence for $H_2$.

The results also confirm the general pattern of the impact of gender on each of the eight dependent variables, which is comparable to the results of the correlation analysis presented previously. The diagnostic tests provide further evidence for the robustness of the empirical results. However, the model’s $R^2$ results indicate that gender has a limited power to explain change in the using external business advice dependent variable.

In summary, the findings of this study confirm the $H_1$, which suggested that there are statistically significant differences between female and male owners’ use of external business advice services. Furthermore, the results are consistent with $H_2$, in which gender was thought to influence the use of eight advice types. The findings provide evidence that female owners are more likely to use more external business advice than their male counterparts.

5. Conclusions, limitations and practical implications

The empirical analysis presented here focuses on differences in the use of external business advice between female- and male-owned small businesses in Sweden. Based on the empirical data gathered by questionnaires and various quantitative analyses, including ANOVA tests and SUR models, this paper provides several insights into this question. According to the results, there are certain similarities and differences between Swedish female and male entrepreneurs concerning the type of external business advice they use. A key finding is that, despite some similarities, there are statistically significant differences between the female and male groups’ use of eight external business advice services:

(1) advice on strategy, goals or visions (Q1);
(2) help with business plans, including market analysis (Q2);
(3) advice on marketing or sales (Q4);
(4) advice on tax (Q5);
(5) training on how to start your own business (Q7);
(6) help developing the business (Q11);
(7) help with building a Web site (Q17); and
(8) help to get a mentor to bounce ideas off (Q19).

Female owners are more likely than male owners to use these eight types of external business advice, implying gender influences in the use of these services. The independent variable, gender, explains a limited change of the dependent variable (use of external business advice). The other variables such as business networks of the sampled owners may affect the use of external business advice. However, due to data limitations, there is no possibility to measure the impact of these variables on the use of external business advice. Other possible variables might include the female owners’ weaker networks (Brush, 1992; Manolova et al., 2007; Bogren et al., 2013), and the fact that their businesses are concentrated in highly competitive sectors (Parker, 2009).
Table V. Results of the seemingly unrelated regressions (SUR):

| Dependent variable | Independent variable | Coefficient | Standard error | z   | P>|z| | RMSE | $R^2$ | $\chi^2$ | P | Obs | Parms | VIF |
|--------------------|----------------------|-------------|----------------|-----|------|-------|-------|----------|---|-----|-------|-----|
| Q1                 | Gender               | -0.18242    | 0.036359       | -5.02 | 0.000** | 0.862378 | 0.0094 | 25.17 | 0.000 | 2,660 | 1     | 1.00 |
|                    | constant             | 1.876735    | 0.0639002      | 29.37 | 0.000 |       |       |          |     |      |       |     |
| Q2                 | Gender               | -0.19467    | 0.034948       | -5.57 | 0.000** | 0.828911 | 0.0115 | 31.03 | 0.000 | 2,660 | 1     | 1.00 |
|                    | constant             | 1.828342    | 0.0614203      | 29.77 | 0.000 |       |       |          |     |      |       |     |
| Q4                 | Gender               | -0.16776    | 0.0325084      | -5.16 | 0.000** | 0.7710475 | 0.0099 | 26.63 | 0.000 | 2,660 | 1     | 1.00 |
|                    | constant             | 1.746969    | 0.0571328      | 30.58 | 0.000 |       |       |          |     |      |       |     |
| Q5                 | Gender               | -0.14271    | 0.0440967      | -3.24 | 0.001** | 1.04590 | 0.0039 | 10.47 | 0.001 | 2,660 | 1     | 1.00 |
|                    | constant             | 2.453361    | 0.0774988      | 31.66 | 0.000 |       |       |          |     |      |       |     |
| Q7                 | Gender               | -0.239334   | 0.0382857      | -6.25 | 0.000** | 0.90807 | 0.0145 | 39.08 | 0.000 | 2,660 | 1     | 1.00 |
|                    | constant             | 1.981909    | 0.0672862      | 29.45 | 0.000 |       |       |          |     |      |       |     |
| Q11                | Gender               | -0.09740    | 0.0303999      | -3.20 | 0.001** | 0.72103 | 0.0038 | 10.27 | 0.001 | 2,660 | 1     | 1.00 |
|                    | constant             | 1.535525    | 0.053427       | 28.74 | 0.000 |       |       |          |     |      |       |     |
| Q17                | Gender               | -0.14393    | 0.0384347      | -3.74 | 0.000** | 0.91161 | 0.0052 | 14.02 | 0.000 | 2,660 | 1     | 1.00 |
|                    | constant             | 1.726857    | 0.0675481      | 25.56 | 0.000 |       |       |          |     |      |       |     |
| Q19                | Gender               | -0.11011    | 0.0372836      | -2.95 | 0.003*  | 0.88430 | 0.0033 | 8.72  | 0.003 | 2,660 | 1     | 1.00 |
|                    | constant             | 1.681901    | 0.065525       | 25.67 | 0.000 |       |       |          |     |      |       |     |

**Note:** ***, *Correlation is significant at 0.01 % and 0.05 % levels, respectively
Our study shows a gender difference in external business advice use and also fills a research gap. The results of this study contribute to research about this issue by providing greater insights into the relationship between gender and the use of external business advice. The results indicate that gender may be a dominant variable in showing patterns of advice use among small business owners in Sweden during start-up. Female owners in this study are not only more eager than male owners to apply for business advice but they also use it to a greater extent and in more areas than their male counterparts.

The results also concur with a number of previous studies concerning gender-based differences surrounding issues such as consultancy. The main reason why women owners apply for and use advice to a greater extent than men owners is probably due to their lack of previous business experience, training, business education and business information (cf. Aldrich, 1989; Carter, 1989; Buttners, 1993; Greene et al., 2001; Verheul and Thurik, 2001; Irwin and Scott, 2010; Price and McMullan, 2012), as well as their financial concerns (cf. Watson and Robinson, 2003; Charness and Greezy, 2012). These shortcomings perhaps contribute to risk aversion (cf. Van Praag and Cramer, 2001) or to fear of failure among women owners, and this makes them more cautious than men owners and more willing to use a broader range of information.

Using advice on strategy, goals, visions, markets and sales indicates that these women entrepreneurs perhaps want to guarantee their businesses against possible risks and turbulences in the future. Using advice on strategy confirms Chrisman’s (1989) earlier assumptions that strategic assistance is more important for small businesses. Consistent with Garcia and Carter (2009), Klyver and Hindle (2010), Klyver and Grant (2010), Klyver (2011) and partly Logan (2014), these women entrepreneurs use more professional advice, including emotional and moral support, simply because, compared to their male counterparts, they either lack valuable entrepreneurial resource providers in their social network, or are used to providing more emotional support in their family businesses compared to men; now they seek encouragement with their advisors.

Our findings are partially consistent with Sciglimpaglia et al.’s (2013) findings that women entrepreneurs show interest in strategic, operational and administrative advice assistance. On the other hand, our study contradicts Chrisman et al.’s (1990) results that both genders display identical needs and use identical assistance from external advisors. Our results show that women used more help from advisors and across more areas than their male counterparts. One might consider this to be an advantage for women, but we argue that this signifies that women entrepreneurs need more assistance than men entrepreneurs, and show how they might lack business knowledge and information in these areas. In Lundström and Kremel’s (2011) study, women owners (apart from immigrant owners and younger owners) applied for most advice assistance and also used most advice services. Conversely to Chrisman et al. (1990) and Sarri (2011), we have no data on the grade of satisfaction with advice programs between the genders, or an epilogue evaluation, thus signifying the shortcomings of our study.

This study has a number of limitations commonly associated with the sample selection. First, the study is based on Swedish firms operating in four regions; therefore, the findings may not be applicable to firms in other countries. Swedish women have one of the highest employment rates in Organization for Economic Co-operation and Development (OECD) countries (OECD, 2014), and the Swedish welfare system is known for its gender equality, giving women and men relatively equal working conditions and
social security compared to many other OECD countries. As a result, women’s entrepreneurship in Sweden might be comparable with other Nordic or Scandinavian countries with similar systems but not with many other OECD countries with quite different welfare systems (Achtenhagen and Tillmar, 2013). Second, the firms’ characteristics apparently have an association with their use of business advice, rather than firm-related control variables, i.e. firm characteristics were not utilized in the study. A further limitation is that an evaluation of the efforts was not carried out afterwards. Despite these limitations, the findings fill a gap in current empirical knowledge, and have some practical implications for firms, owners, managers, public policymakers and training suppliers. Moreover, in accordance with previous studies (Carter, 2000), we conclude that there are many implications for external advisors, and that mentoring programs and good mentors are needed to have a positive impact on female-owned businesses (Orhan and Scott, 2001; Sarri and Trihopoulou, 2005; Barrett, 2006; Scanlon, 2009). This conclusion is strongly supported by the fact that Sweden, despite its well-known welfare system and high gender equality, still shows one of the lowest rates of female entrepreneurship among OECD countries. Therefore, in line with recent Swedish studies (e.g. Achtenhagen and Tillmar, 2013; Ahl, 2006), we also conclude that more studies are required regarding the role of gender in the business sector, particularly on gender-based differences in business consultancy.

Newly formed and small firms ought to benefit most from external business advice such as consultancy services sponsored by governments. However, matching the needs of a firm and the services of a consultancy service is a complicated process; thus, only certain interactions will result in performance improvements. To effectively benefit from the service offered by the consultancies, owners/managers should adjust their needs to the available external business advice.

References


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