SME PERFORMANCE: DOES GENDER MATTER?

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Abstract

Most small and medium enterprise (SME) research has found that female-owned SMEs under-perform male-owned SMEs. However, much of this research has been based on relatively small samples, and/or limited data (particularly financial data), and/or restricted geographical locations. As a result, generalising from the results of these studies has been problematic. Further, and due primarily to data limitations, previous studies have normally limited their assessment of performance to output measures such as sales or profit (or growth in sales or profit) without relating these outputs to inputs and without controlling for differences in risk. Recently, the Australian Bureau of Statistics has provided academics with access to a large longitudinal database on Australian SMEs covering the financial periods 1994-95 to 1997-98. This database has allowed researchers to assess SME performance (and particularly to compare the performance of male- and female-controlled SMEs) more rigorously than has previously been possible. Results suggest there is no significant difference in the performances of male- and female-controlled SMEs provided performance is measured appropriately and significant demographic differences (such as age of business and industry) are controlled for. The purpose of this paper is to summarise this recent Australian research and to make suggestions for further work in the area of female entrepreneurship.

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Introduction

With the rising number of women-owned businesses has come a considerable amount of research, and even more speculation, on differences between male and female entrepreneurs and their businesses (Fischer, Reuber and Dyke 1993). Much of this research has focused on differences in the relative performances of male- and female-controlled small and medium enterprises (SMEs)[1].

Liberal feminist theory (Fischer et al. 1993) suggests that SMEs run by women will exhibit poorer performances than those run by men because women are overtly discriminated against (by lenders, for example) and/or because of other systematic factors that deprive women of important resources (for example: business education and experience). By way of contrast, social feminist theory (Fischer et al. 1993) suggests that men and women are inherently different due to differences in their early and ongoing socialization. These differences do not imply that women will be less effective in business than men, but only that they may adopt different approaches which may, or may not, be equally as effective as the approaches adopted by men.

In examining SME performance, the majority of international research to date has taken a liberal feminist theory perspective and has attempted to explain the apparent under-performance of female-owned businesses by examining the systematic differences between male and female entrepreneurs (for example: Kalleberg and Leicht 1991; Fischer et al. 1993; Fasci and Valdez 1998; Du Rietz and Henrekson 2000). The assumption (sometimes implicit) in these studies is that if certain variables are controlled for (thereby removing the effects of any bias against female entrepreneurs), there should be no significant difference in the relative performances of male- and female-owned businesses. However, even after including a variety of control variables, the majority of this prior research has still found that female-owned SMEs under-perform relative to male-owned SMEs.

Much of this previous research, however, has been based on relatively small samples, and/or limited data (particularly financial data), and/or restricted geographical locations. As a result, generalising from the results of these studies has been problematic. Further, and due primarily to data limitations, previous studies have normally limited their assessment of performance to output measures such as sales or profit (or growth in sales or profit) without relating these outputs to inputs and without controlling for differences in risk. Recently, the Australian Bureau of Statistics has provided academics with access to a large database on Australian SMEs covering the financial periods 1994-95 to 1997-98. This database has allowed researchers to assess SME performance (and particularly to compare the performance of male- and female-controlled SMEs) more rigorously than has previously been possible. The purpose of this paper, therefore, is to summarise this recent Australian research comparing the performances of male- and female-controlled SMEs and to make suggestions for further work in the area of female entrepreneurship.

[1] The definition of small and medium enterprises (SMEs) varies across countries. In this paper size is defined using the Australian Federal Government definition whereby businesses with over 200 employees are considered large, businesses with less than 20 employees are considered small, and the remainder are considered medium sized enterprises.

Recent Australian Research

Unlike much of the previous international research, recent Australian studies have taken a social feminist theory perspective. This Australian research has relied on data from the 1994-95, 1995-96, 1996-97 and 1997-98 Business Growth and Performance Surveys (also known as the Business Longitudinal Survey (BLS)) undertaken by the Australian Bureau of Statistics (ABS). These surveys were designed to provide information on the growth and performances of Australian employing businesses for the federal government. For confidentiality reasons, information on all large businesses (those employing more than 200 people) was excluded from the data set made available to researchers outside the ABS.

The ABS Business Register was used as the population frame for the surveys. For the 1995-96 survey a representative sub-sample of the original 1994-95 survey was selected and this sub-sample was then used for the remaining surveys. To maintain a representative sample over the four periods, the ABS added additional firms to each of the subsequent surveys to replace firms that had ceased operations during the preceding period. All employing businesses in the Australian economy were included in the scope of the surveys except for businesses in the nature of: government enterprises; libraries; museums; parks and gardens; private households employing staff; agriculture, forestry and fishing; electricity, gas and water supply; communication services; government administration and defense; education; and health and community services.

Data collection was through self-administered questionnaires, copies of which can be obtained from the ABS. Because the ABS can legally enforce compliance with its data requests (under the *Census and Statistics Act 1905*) response rates were very high (typically in excess of 90%). The unique and comprehensive nature of this Australian SME database has allowed researchers to gain new insights into the relative performances of male- and female-controlled SMEs. Following is a brief summary of this recent research.

Watson (2001)
Watson (2001) examined the demographic details for both the male- and female-controlled SMEs[2] in the BLS database and found that (in common with much of the previous international research) female-controlled SMEs were:

1. over-represented in the retail and services sectors;
2 over-represented in the younger age groups (less than 2 years old, 2 years to less than 5 years old, and 5 years to less than 10 years old); and
3. more likely to operate less than five days per week.

Further, the females in control of these SMEs were:

1. more likely to be represented in the group with less than ten years of experience;
2. less likely to have either a trade or tertiary qualification; and
3. more likely to have a non-business degree (where they had a tertiary qualification).

2 The SMEs were defined as male- or female-controlled on the basis of two questions in the 1994-95 BLS survey. The first question asked whether their was a single major decision maker. If the answer was yes, the second question asked for the sex of that person. It is assumed that these businesses continue to be either male- or female-controlled for the remaining three years.

In terms of performance, and consistent with the majority of previous international research, the female-controlled SMEs had significantly lower outputs (total income and profits) than the male-controlled SMEs. This difference persisted after controlling for the above demographic differences. This finding raised the issue of whether measuring performance only in terms of outputs was appropriate. The following papers examined the performance of male- and female-controlled SMEs using alternative (more appropriate) measures of performance.

Watson (2003a)

Watson (2003a) examined the relative failure rates for male- and female-controlled Australian SMEs. Failure was defined as discontinuing the operations of the firm. If the business was sold and continued to operate it was regarded as a continuing (non-failed) business.[3] The results suggested that while female-controlled businesses had higher failure rates (compared to male-controlled businesses) the difference was not significant after controlling for the effects of industry. In other words, females tend to set up businesses in industries (primarily retail and service) that have relatively higher discontinuance rates; presumably because of lower barriers to entry resulting in lower margins and greater competition. The reasons why females tend to predominate in certain industries is not clear. In line with a social feminist view, it is possible that women feel more comfortable in industries that are relationship based rather than task oriented. Eagly, Karau and Makhijani (1995, p.137) reported that ‘women were more effective than men in leadership roles that were feminine in the sense that ... they required considerable interpersonal ability, defined as the ability to cooperate and get along with other people.’ On the other hand, ‘Men were more effective than women in roles that were masculine in the sense that...they required considerable task ability, defined as the ability to direct and control people.’ Alternatively, and in line with a liberal feminist perspective, it is possible that women lack the necessary capital (both financial and human) to enter those industries that have, in the past, been dominated by men. There is clearly an opportunity for further research in this area.

Watson (2002)

Watson (2002) examined the relative performances of male- and female-controlled Australian SMEs by relating outputs (total income and profit) to inputs (total assets and total shareholders’ equity). The performance measures used were: total income to total assets (TITTA); profit to total assets (ROA); and profit to total shareholders’ equity (ROE). The results indicated that female-owned businesses had significantly lower total income and profits compared to male-controlled businesses. However, there were also significantly fewer resources invested in the female-controlled businesses compared to the male-controlled businesses. When business outputs were related to inputs (and after controlling for: industry; age of business; and the number of days the business operated) the results indicated that there were no significant differences in the performances of the male- and female-controlled SMEs. Interestingly, before including the control variables, there was evidence to suggest that the female-controlled SMEs outperformed the male-controlled SMEs.

This finding suggests that females may take a different approach to business in that they are likely (on average) to use fewer resources in their ventures. However, their relative performance (where outputs are related to inputs) is likely to be the same as males. In other words, this study suggests that differences in the relative performances of male- and female-controlled SMEs reported by previous studies may not have been caused by any inability on the part of females to put resources to effective use. Rather, it would appear that females are just as effective (as males) in using resources, however, females (on average) invest fewer resources in their ventures. The reasons why females invest fewer resources in their ventures is an issue that

3 For a discussion of the merits of alternative definitions of failure see Watson and Everett (1993).

warrants further careful examination. There are at least two possible explanations for this phenomenon. Firstly, and in line with a liberal feminist perspective, it could be argued that females have fewer resources to invest because they tend to earn less (and, therefore, will have lower levels of savings available for investment) and/or because females are discriminated against by lenders. Secondly, and in line with a social feminist theory perspective, it is possible that females generally commit fewer resources to their ventures because they are more risk averse. These alternative explanations are both worthy of careful further investigation.

Watson and Robinson (2003b)

Watson and Robinson (2003b) noted that investors (researchers) usually wanted a single unambiguous number that could be used to compare SME performance and the number most frequently used in past research had been sales or profit (or growth in sales or profit). They also pointed out that being in business involves risk and the greater the risk the higher the expected returns. Therefore, while sales and profit are important to a business, it is equally important to explicitly relate these performance indicators to the underlying risks involved in the business. They further noted that a lower preference for risk amongst females is one of the gender differences that has been persistently found in both the general and business specific literature. (Powell and Ansic 1997) This being the case, they suggested that female-controlled SMEs are likely to have both lower levels of profit and lower levels of risk. This lead the authors to the central hypothesis of their study which stated that, after controlling for risk, there should be no difference in the performances of male- and female-controlled SMEs.

Watson and Robinson (2003b) used Sharpe's (1975) reward-to-variability ratio as a means of controlling for risk in measuring SME performance. 'The reward-to-variability ratio is simply the ratio of reward (which is good) to variability (which is bad).' (Sharpe 1975, p.29) Other things being equal, the higher the ratio the better the performance. Watson and Robinson (2003b) found that although profits (rewards) were significantly higher for male-controlled SMEs, so was the variation in profits (risk). After adjusting for risk, using Sharpe's (1975) return-to-variability ratio, they supported their hypothesis of no significant difference between the performances of male- and female-controlled SMEs. Why females tend to be more risk averse is another area of potential future research. Is it something in the genes, or is it the result of environmental influences?

Johnson (2002)

Johnson (2002) was interested in examining whether there were consistent, significant, gender-based differences in the financial performance and business growth of small and medium-sized Australian SMEs.[4] Johnson (2002) found no significant differences (after controlling for systematic demographic differences) between male- and female-owner-managed SMEs with respect to: financial performance (measured in terms of return on assets and return on equity); growth (in employees, sales and assets); or leverage (defined as total liabilities to total assets). The finding with respect to growth is of particular interest, as it is contrary to popular belief.

For example, Cliff (1998, p.523) suggested that:

4 The SMEs were defined as female- (male-) owner-managed on the basis of how many female (male) proprietors, partners, or directors worked in the business. A female (male) owner-managed business was defined as any business with at least one female (male) proprietor, partner or director, and no male (female) proprietor, partner or director. This information was only available for the 1995-96, 1996-97 and 1997-98 surveys.

> female entrepreneurs are more likely to establish maximum business size thresholds beyond which they would prefer not to expand, and that these thresholds are smaller than those set by their male counterparts. Female entrepreneurs also seem to be more concerned than male entrepreneurs about the risks of fast-paced growth and tend to deliberately adopt a slow and steady rate of expansion.

The finding with respect to leverage is also of interest. It suggests that female SME owners borrow less in an absolute sense, but relative to the assets of the business, they borrow at the same rate as male owners. Given that there are industry norms (targets) with respect to leverage ratios, does this finding mean that women borrow less because they prefer smaller businesses, or do they have smaller businesses because they are unable to acquire more funding.

Implications Flowing from this Recent Australian Research

Although there are still many unanswered questions arising from the Australian research into the relative performances of male- and female-controlled SMEs, there are also a number of significant findings that are worth summarizing. In particular, it should be noted that compared to male-controlled SMEs, and after controlling for demographic differences (such as age of business and industry), female-controlled SMEs appear to:

1. discontinue (fail) at a similar rate;
2. earn similar levels of returns, given their lower investment in assets;
3. earn similar levels of returns, given the lower inherent risks in their ventures;
4. experience similar growth rates; and
5. have similar levels of leverage.

Two major implications result from these findings. Firstly, in terms of credit providers, it could be argued that female-controlled SMEs represent a better loan risk because (on average) they appear to have significantly lower variability in profits (risk) compared to male-controlled SMEs. Secondly, the results may help guide public policy makers on such difficult issues as whether or not unique training and support programs should be designed for female SME owners/would be owners. (Fischer et al. 1993) For example, courses designed specifically to give female SME owners a better appreciation of the risks involved with growing their businesses (and how these can be minimised) might be helpful. However, providing courses specifically for women that are simply designed to foster growth (without addressing the issue of risk) may be largely a waste of effort. Such courses would be better targeted/developed for all SME owners.

Directions for Future Research

Future research questions raised by the discussion so far include:

1. The reasons underlying some of the notable demographic differences between males and females and their businesses; and whether these are changing over time as societal values change. For example, in recent years there have been growing numbers of females entering university courses (such as engineering) that in the past have been dominated by males. Has this shift been accompanied (some years later) by an increase in the number of female-controlled SMEs in those discipline areas? Or do females simply feel more comfortable in industries that are more relationship based where they have a natural advantage in terms of their leadership style.

2. Do female SME owners (generally) have less access to financial resources (either personal or from financial institutions) to invest in their ventures? Or do they simply prefer not to invest (risk) as much as males?

3. If females are more risk averse (than males), is this difference part of the human genetic make up or is it the result of societal and environmental factors? As females progress through business degree programmes, do their views concerning business risk (and their willingness to accept higher levels of business risk) change?

In addition, 'many entrepreneurs pursue personal goals, some of which are noneconomic in nature' (Cooper 1993, p.241), and, therefore, future research might usefully examine other performance indicators; beyond the purely economic measures used in most studies of SME performance. For example, Brush (1992, p.22) noted that the 'assessment of business performance for women owned businesses should include not only financial measures, but should incorporate other measures such as employee satisfaction, social contributions, goal achievement, and effectiveness'. It could also be enlightening if future research could link performance indicators to the goals and objectives of the SME owners (both personal and for the business). This may be particularly relevant for female-controlled SMEs because, for example, in examining the motivations of 129 women executives and professionals who left large organizations to become entrepreneurs, Buttner and Moore (1997, p.34) found that the 'women's most important entrepreneurial motivations were the desire for challenge and self-determination and the desire to balance family and work responsibilities'. They also observed that the entrepreneurs in their study measured success in terms of 'self-fulfilment and goal achievement. Profits and business growth, while important, were less substantial measures of their success.'

Conclusion

This paper has presented a brief overview of recent Australian research using the comprehensive BLS database to examine the relative performances of male- and female-controlled SMEs. The findings are in sharp contrast with much of the previous international research that has generally been based on relatively small samples, and/or limited data (particularly financial data), and/or restricted geographical locations. The recent Australian research suggests that females may take a different approach to business, in that they are likely (on average) to use fewer resources in their ventures. However, their overall performances are likely to be the same as for males, provided appropriate measures of performance are used. In other words, the Australian evidence suggests that differences in the relative performances of male- and female-controlled enterprises reported by previous international studies may not have been caused by the inability on the part of females to put resources to effective use. Rather, it would appear that females are just as effective (as males) in using resources, however, females (on average) invest fewer resources in their ventures and also seem to get involved in less risky enterprises.

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