

Women's management practices and performance in rural female-owned family businesses

Whitney Peake

Department of Management, Western Kentucky University, Bowling Green, Kentucky, USA, and

Maria I. Marshall

Department of Agricultural Economics, Purdue University, West Lafayette, Indiana, USA

Abstract

Purpose – Prior research indicates that family businesses have fewer management control practices in place and are more likely to have non-economic goals for their firm. Further, researchers in this domain contend that female-controlled businesses tend to underperform compared to male-controlled businesses. The purpose of this paper is to analyze the performance effects of management controls and goals for the business across both male and female-controlled farm and rural family businesses.

Design/methodology/approach – The data used in the analyses are from the 2012 Intergenerational Farm and Non-Farm Family Business Survey. The sample comprises 576 small- and medium-sized rural family businesses. The authors used probit analysis to model both family business objective and subjective success for women and men.

Findings – The results suggest that female-controlled farm and rural family businesses do not underperform their male counterparts in terms of objective or subjective assessments of performance. The results do indicate, however, that strategic management via management control practices within the firm influence objective and subjective performance differently across male and female-controlled farm and rural family businesses.

Originality/value – The results provide three primary contributions to the family business literature. First, the authors determined that strategic management practices via management control mechanisms, as well as the monitoring of managers, are of significance to the objective performance (i.e. gross income) of both men and women-controlled farm and rural family businesses. Second, the authors found that communicating economic vs non-economic goals do not influence satisfaction with the firm's performance, but do influence the probability of success for female-controlled family businesses. Finally, the authors find that when we compare male and female-controlled businesses in the same industry, while controlling for family and business factors, men and women do not differ in a statistical sense in objective or subjective performance.

Keywords Family business, Gender, Agency theory, Management control, Rural business

Paper type Research paper

The tenets of agency theory indicate that family businesses have an advantage over nonfamily businesses due to greater objective alignment and subsequently, reduced agency costs (Fama and Jensen, 1983; Schulze *et al.*, 2003). Empirical analyses have found that family businesses do incur lower agency costs than nonfamily firms, and as a result, researchers have worked to examine whether performance in family and nonfamily businesses differ due to lower agency costs (Gomez-Mejia *et al.*, 2001; Schulze *et al.*, 2001, 2003; Villalonga and Amit, 2006). Despite the lower agency costs incurred by family businesses, researchers generally agree family businesses should implement management strategies that incorporate control mechanisms to assist in further reducing agency costs (James, 1999; Chrisman *et al.*, 2010), since as part of strategic management, monitoring and management practices have been consistently argued as a critical component of family business performance (e.g. Chrisman *et al.*, 2005; Eddleston *et al.*, 2008; Sirmon and Hitt, 2003). The implementation of such measures to monitor the achievement of short-term and long-term objectives has been shown to heighten family firm performance (Chrisman *et al.*, 2007).



Although such results are intuitive, there are a number of complex factors and contexts that likely influence both the implementation and success of monitoring mechanisms across family firms, which lead to heterogeneity. Three such factors are goals of the firm, gender of the owner, and industry or context in which the firm operates, and to our knowledge, joint analysis of these factors for their influence on both objective and subjective family firm performance, has yet to be undertaken. Agency theory necessitates that rational, economic goals be at the center of the firm's strategy (Zahra, 2005; Westhead and Howorth, 2006). However, family businesses are often noted as less professionalized than their nonfamily business peers due to the pursuit of non-economic goals. Thus, family businesses may choose to pursue less formal means of monitoring and control due to goal alignment and maintaining family harmony (Fama and Jensen, 1983; Greenwood, 2003; Sharma, 2004).

Research in the small business realm has examined performance differences between men and women-owned firms. The researchers of small- and medium-sized businesses historically argued that women-owned businesses underperformed those of their male counterparts (Du Rietz and Henrekson, 2000; Watson, 2003). However, finer-grained analyses that control for firm size and industry have found that women's focus may be on smaller, lifestyle businesses (e.g. Collins-Dodd *et al.*, 2004; Morris *et al.*, 2006; Orser *et al.*, 2006) and that growth (or lack thereof) is a conscious choice that women make to accommodate such a lifestyle (Morris *et al.*, 2006). As such, small business researchers have compared men and women led businesses based on owner and firm characteristics (e.g. Collins-Dodd *et al.*, 2004; Kalleberg and Leicht, 1991; Morris *et al.*, 2006), motives and goals (Collins-Dodd *et al.*, 2004; Morris *et al.*, 2006), and the implementation of strategic management practices (Songini and Gnan, 2009). To our knowledge, though, family business research has not considered gender as a source of family business heterogeneity regarding monitoring mechanism implementation. Given findings related to gender and performance, this appears to be an important omission.

Although industry and context have been argued as an important source of family business heterogeneity (e.g. Chua *et al.*, 2012; Leaptrott, 2005; Naldi *et al.*, 2013), farm and rural family businesses have generally been overlooked as an important subsample with distinct characteristics and goals within the family business literature. Rural and farm family businesses have been noted for their particularly adamant focus on family legacy and continuation (e.g. Andersson *et al.*, 2002; Getz and Carlsen, 2000; Hansson *et al.*, 2013). Rural and farm families often place substantive value on family (i.e. biological), material (i.e. property), and social (i.e. community) family legacies (Hammond *et al.*, 2016; Hunter and Rowles, 2005) as they concentrate on long-term continuity. Further, research suggests that women are increasing their involvement in farm and rural businesses, but express difficulty in finding information related to best management practices for their businesses (Albright, 2006). The 2002 Census of Agriculture showed a 40 percent increase in the number of women farm operators in the preceding decade, with women comprising more than one quarter of farm operators in the USA. Moreover, according to the 2007 Census of Agriculture (United States Department of Agriculture and National Agricultural Statistics Service, 2007), the number of women operators increased by 19 percent from 2002, exceeding the number of farmers overall, which only grew by 7 percent. By the 2012 Census of Agriculture, fewer women were farming with a 6 percent decrease from 2007; although women still made up 30 percent of all operators. Additionally, 91 percent of female principal operators in 2012 made less than \$50,000 in revenue compared to 75 percent of all farmers (United States Department of Agriculture, National Agricultural Statistics Service, 2014). Thus, further examination of rural and farm family businesses serves as an interesting and relevant target for examining family firm heterogeneity in context.

Given the importance of these factors, we contend current research has not capitalized on the joint consideration of gender, goals, industry/context, and implementation of monitoring

practices in examining heterogeneity in performance for family businesses. With these concerns in mind, we take an agency theoretic approach to address the strategic management practices-performance relationship for farm and rural family businesses, while concurrently considering gender, goals, and context. To explore these phenomena, we utilize a sample of 576 men and women-controlled farm and rural small- and medium-sized businesses (SMEs) in the Midwestern USA. We believe such work gives important consideration to the joint effects of: strategic management practices via management control implementation; and goals of the firm owner, gender, and industry/context on both objective and subjective firm performance. As such, we raise relevant and important considerations for family firm heterogeneity related to these factors.

The remainder of the paper is organized as follows. First, we address the role of agency theory in strategic management, management practice implementation, and goal setting for family businesses. Additionally, we briefly review the family business gender literature to assist in developing our hypotheses related to performance differences across male and female-owned family businesses. Then, we empirically investigate this phenomenon using discrete choice models. We examine the influence of strategic management via management practices implementation and economic vs non-economic goals for their influence on both objective performance (gross income) and subjective performance of female-owned and male-owned family businesses, while controlling for other family- and business-specific characteristics, such as age, education level, marital status, and number of employees. Finally, we report our results and provide both academic and practical implications of our findings.

Agency theory in family business research

Since agency theory deals with goal alignment (Fama and Jensen, 1983) between principals and agents, agency theory is often used to underpin explorations of performance differences between family and nonfamily firms. Under the tenets of agency theory, the goals of family owners and managers are assumed to hold greater alignment; thus, family firms are often argued to accrue lower agency costs (Fama and Jensen, 1983; Schulze *et al.*, 2003). As a result, fewer management controls are needed or implemented to reduce agency issues and informal controls, such as trust, are relied on in their place (Gomez-Mejia *et al.*, 2001; Zahra *et al.*, 2004). Despite this advantage for family firms, researchers contend that family businesses must incorporate formal control measures, such as monitoring short-term and long-term objective achievement, formal plans, human resources policies, written agreements among owners and managers, etc., as a part of their firm strategy, to mitigate agency problems prevalent in family businesses (e.g. excessive altruism, free riding, shirking) (Chrisman *et al.*, 2007). Even in family businesses, the implementation of agency control mechanisms has been found to improve objective performance (Chrisman *et al.*, 2007). Based on prior research, we expect the following:

- H1. Both male and female-controlled farm and rural family businesses implementing greater levels of management control and accountability will report higher levels of objective performance.
- H2. Both male and female-controlled farm and rural family businesses implementing greater levels of management control and accountability will report higher levels of subjective performance.

The tenets of agency theory suggest that managers with rational economic goals will work to maximize profit (Zahra, 2005). However, researchers indicate that family businesses often have goals outside the classic economic context of profit maximization (Chrisman *et al.*, 2012; Vesper, 1980). The presence and pursuit of non-economic goals is purported to influence family business behavior and performance (Astrachan and Jaskiewicz, 2008).

Westhead and Howorth (2007) argue that family firms may choose to simultaneously pursue economic (i.e. profit maximization and wealth creation) and non-economic objectives (i.e. employment for family members, family support, socio-emotional wealth). Prior research suggests, however, that either economic or non-economic objectives likely dominate and set the strategic posture of the firm (Getz and Petersen, 2005). Family and business specific characteristics likely influence the family's adoption of primarily economic-centered or non-economic-centered goals for the firm (Westhead and Howorth, 2007). Economic oriented goals are considered a motivating force related to the implementation of agency-controlling measures (Chrisman *et al.*, 2007; Zahra, 2005). We expect that economic-centered goals align with the use of management control and accountability practices; thus, augmenting firm performance through the reduction of agency costs. Our hypotheses related to economic oriented goals follow:

- H3.* Both male and female-controlled farm and rural family businesses that primarily choose economic goals will report higher levels of objective performance than those primarily choosing family-centered goals.
- H4.* Both male and female-controlled farm and rural family businesses that primarily choose economic goals will report higher levels of subjective performance than those primarily choosing family-centered goals.

Performance differences across male and female-controlled family businesses

Women's engagement in the implementation of strategic management practices has received scant attention across both SME and family business research. However, gender is likely an important context, particularly pertaining to agency theory and organizational goal setting. Women may often serve as less "rational" economic decision-makers under agency theory, as they are often argued to value and pursue more quality-of-life success measures than men (Morris *et al.*, 2006). As such, they may be less likely to professionalize through strategic management practices such as management controls and accountability. Chrisman *et al.* (2007) argue that agency theory necessitates that family firms will only enact strategic control mechanisms if the bottom line benefits outweigh their total cost; thus, increasing firm performance. Given their focus on relationships and quality-of-life, women may not see significant performance benefits from strategically engaging in control mechanisms and may see lower levels of objective performance for their businesses.

Orser *et al.* (2006) argued that women-owned firms are smaller, are less likely to grow than counterpart firms owned by men, and are overrepresented in the retail and service sectors. Morris *et al.* (2006), corroborate these results as women were found to make conscious decisions about limiting (or pursuing) the growth of their firms. These factors are believed to be associated with issues in women entrepreneur's self-confidence and hesitancy of initiating large businesses that involve a considerable amount of capital and risk (e.g. Birley, 1989; Morris *et al.*, 2006). Women entrepreneurs may be self-restricting their goal of business growth by avoiding opportunities that require large initial investments. Verheul and Thurik (2001) ultimately believe that "female entrepreneurs may have different ambitions and objectives than male entrepreneurs" which may explain goal setting, business decisions, policy implementation, and ultimately performance.

In terms of gender and performance, there is generally consensus among scholars that women entrepreneurs underperform relative to their male counterparts when data are examined at a cumulative level (Du Rietz and Henrekson, 2000; Watson, 2003). However, researchers controlling for factors such as size of business and industry (Collins-Dodd *et al.*, 2004; Orser *et al.*, 2006) often show that there is no statistically significant difference between

women and men entrepreneurs' performance. Lee *et al.* (2010) found that women managing family businesses perceived their businesses as more successful than men. Kalleberg and Leicht (1991) discovered that determinants of survival and success operated in much the same way for women and men, suggesting that the processes underlying small business performance are similar regardless of gender. Such work does not consider the joint effects of strategic management practices, goals, gender, and other owner/business characteristics for their influence on both objective and subjective performance. Although Songini and Gnan (2009) found that essentially no significant differences exist between men and women led family businesses in terms of engagement in strategic management practices, they did not explore a link to firm performance for firm engagement in such activities.

In terms of how women and men strategically manage, certain authors contend that women are more oriented toward personal relationships than men and experience greater influence from family history. Women are argued to feel more vulnerable to risk and make a stronger connection with customers and employees (Bird and Brush, 2002; Danes *et al.*, 2007). Some studies (Loscocco and Leicht, 1993; Verheul and Thurik, 2001) have confirmed that women entrepreneurs typically differ from men in that they were more likely to work part-time because of domestic responsibility, had less financial management experience, and spent less time networking than their male counterparts.

Chell and Baines (1998) propose that performance is itself a gendered concept. Traditional profit-based measures have been called into question as sole evaluation of performance since performance may be redefined by women's own subjective standards of success (Bird and Brush, 2002; Morris *et al.*, 2006). Morris *et al.* (2006) argue that women purposefully choose the size of their business based on the trade-offs they perceive in their work and home lives. This line of thought is echoed in the family business literature as survey methods have moved beyond objective economic measures to capture subjective non-economic measures of perceived success such as owner satisfaction, customer satisfaction, family involvement, personal development, and personal achievement (Danes and Olson, 2003; Lee *et al.*, 2010; Philbrick and Fitzgerald, 2007; Clark and Marshall, 2010; Westhead and Howorth, 2007). Based on prior work related to gender and performance, we expect the following:

- H5. Female-controlled businesses will be associated with lower objective performance than male-controlled businesses.
- H6. Female-controlled businesses will be associated with higher subjective performance than male-controlled businesses.

Data and methods

The data used in the subsequent analyses are from the 2012 Intergenerational Farm and Non-Farm Family Business Survey. The 2012 Intergenerational Farm and Non-Farm Family Business Survey was a 30-minute telephone survey of rural farm and non-farm family businesses. The sample consists of a convenience sample of 2,097 small- and medium-sized farms Illinois, Indiana, Michigan, and Ohio; and a random sample of 1,059 small Indiana rural family businesses. The final sample fielded by the University of Wisconsin Survey Center consisted of 3,156 cases from April 2011 to February 2012. Cases with no contact information were removed for a total of 2,163 viable cases. The sample contains 736 observations of which 721 are complete interviews and 15 are usable partial complete interviews. The response rate was 34 percent.

Family business definitions vary considerably across studies. We consider the involvement of the family (e.g. Miller *et al.*, 2013) via two or more family members engaging in the business (Danes *et al.*, 2007; Fitzgerald *et al.*, 2010) or the passing down of the business

through the family. Aligned with commonly accepted definitions of family business, we qualify family businesses as those that have: at least one other member of the family besides the respondent had to have ownership interest in the business (86 percent of the sample); or at least one other member of the family besides the respondent had to work at least part-time in the business (92 percent of the sample); or the respondent inherited the business (18 percent of the sample); or the respondent planned to transfer the business to a family member (55 percent of the sample). The majority of the businesses in the sample met multiple metrics. For example, of the 736 family businesses in the sample, 97 percent had a family member with ownership in the family business or a family member working in the business. The final sample for this analysis consists of 576 usable observations, of which 224 are women and 352 are men. Descriptive statistics are shown in Table I.

Empirical models

We used probit analysis to examine family business success for women and men. Family business success was modeled with both an objective and a subjective measure. Financial measures such as profit, income, or sales are the most frequent indicators of family business success. However, subjective indicators such as motivation, goals, and perceptions are also important in providing the entire context of family business success (Olson *et al.*, 2003).

The objective measure of family business success examined in our analyses was 2010 gross income for the business. Because gross income was a categorical question and businesses fell into two distinct groups (below \$50,000 and above \$50,000), gross income was employed in our probit analyses as a binary measure. Those that have a gross income greater than \$50,000 were categorized as $Y = 1$ and those that had a gross income less than \$50,000 were categorized as $Y = 0$. As shown in Table I, approximately 52 percent of women and 60 percent of men had a gross income greater than \$50,000; thus, these distinct binary categories are appropriate for analysis via probit models.

The subjective measure of family business success was the owner's perception of success. Respondents were asked the question: "Overall, would you say that, so far, your family business is very unsuccessful, somewhat unsuccessful, somewhat successful, very successful, or are you uncertain?" We then modeled the owners' perception of success as a binary measure where $Y = 1$ if the owner responded they were very successful and $Y = 0$ otherwise.

Variable	Definition	Women (n = 224) Percent	Men (n = 352) Percent
Business gross income	1 = Business gross income > \$50,000	51.79	59.66
Success	1 = Family business is very successful	29.46	30.68
College	1 = BS or higher	85.27	75.28
Rother	1 = Nonwhite	3.13	4.26
Married	1 = Married	88.84	88.64
Copreneur	1 = Spouse active in business	74.11	59.94
Mgmt Acct	1 = Has procedures to hold individuals accountable	29.91	38.07
NonEcon Goal	1 = Primary business goal is not economic	20.09	22.16
Successor	1 = Identified a successor	27.23	28.13
		Mean (SD)	Mean (SD)
Age	Age of respondent	53.47 (11.17)	55.56 (12.99)
Bus Age	Age of business	20.12 (20.53)	27.82 (25.96)
Total employees	Number of total employees	7.00 (11.87)	12.03 (36.70)
Management	Index of management practices range is 6 to 30 (see Table II)	17.51 (4.98)	17.56 (4.87)

Source: 2010 Intergenerational Farm and Non-Farm Family Business Survey

Table I.
Descriptive statistics

Approximately 29 percent of women and 31 percent of men responded that they believed their businesses were very successful. This suggests that a binary measure is appropriate for modeling these relationships.

We use two probit models to analyze the objective measure of success (gross income) and the subjective measure of success (perception of business success). The probit model is as follows: $y^* = x'B + u$; where y^* is objective success (subjective success), x' a vector of explanatory variables, and u the error term which is normally distributed. Because, y^* is not observable, we therefore observe $Y = \begin{cases} 1 & \text{if } y^* > 0 \\ 0 & \text{if } y^* \leq 0 \end{cases}$. Marginal effects are calculated as $B_j \Phi(x'\beta)$.

Management controls measure

We examine the family businesses' efforts to reduce agency through strategic management practices via a management controls measure and a measure that indicates if the family business has developed procedures that hold managers formally accountable for their responsibilities to the firm. The management controls measure incorporates six responses to items related to the frequency with which the family business undertakes activities related to formal planning, formal human resource policies, and financial controls. These six items were adapted from the National Family Business Survey (Danes *et al.*, 2007), and are shown in Table II. Using confirmatory factor analysis, we examine whether these measures exhibit acceptable fit for the context of our study. Despite exhibiting a significant χ^2 statistic, results for other fit measures using Lisrel 8.80 indicate acceptable fit of a one-factor model for the management strategies variable (RMSEA = 0.048; CFI = 0.99; GFI = 0.99). These results, along with an internal reliability score above the acceptable threshold of 0.70 ($\alpha = 0.73$), indicate that it is acceptable to examine these six variables as a single, summed latent management controls measure.

Additionally, we examine the influence of formal accountability controls for managers via a binary measure indicating whether such practices are in place within the business. We expect that the strategic management measure will have a positive association with both objective and subjective measures of success. As shown in Table II, we see few differences in management control practices between men and women.

Goals measure

Economic goals are consistent with the tenets of agency theory. We examine whether individuals indicate their primary goal for the firm is primarily economic or non-economic in nature. Respondents were asked to indicate the most important goal to their family

Table II.
Components of
strategic
management index

	Women (n = 224)	Men (n = 352)
	Mean (SD)	Mean (SD)
Management controls included in management index		
How often do you plan marketing strategies?	3.34 (1.22)	3.38 (1.22)
How often do you estimate costs and expenses?	3.32 (1.14)	3.42 (1.17)
How often do you prepare or have prepared financial records such as cash flow statements?	2.81 (1.15)	2.84 (1.15)
How often do you evaluate employee performance?	2.82 (1.55)	2.99 (1.54)
How often do you set goals for the business?	2.91 (1.14)	2.80 (1.19)
How often do you review position descriptions and job responsibilities?	2.31 (1.26)	2.23 (1.24)
Management accountability	Percent	Percent
Have you developed procedures that hold individuals accountable for management responsibilities?	Yes = 29.91 No = 70.09	Yes = 38.07 No = 61.93

Note: Items are on a Likert Scale where 1 = never, 2 = yearly, 3 = quarterly, 4 = monthly, and 5 = weekly
Source: 2010 Intergenerational Farm and Non-Farm Family Business Survey

business, and were given the following options: profit, a positive reputation with customers, business survival, keeping the business in the family, and opportunity to work with family members. Profit, a positive reputation with customers, and business survival were categorized as economic goals, while keeping the business in the family and the opportunity to work with family members were categorized as non-economic goals. Approximately 22 percent of men chose non-economic goals compared to 20 percent of women.

Control variables

We controlled for business owner demographics including age, race, marital status, and educational attainment. We also controlled for business characteristics including business age, total employees, whether the spouse is an active day-to-day manager in the business (copreneur), and whether a successor had been identified.

Results

Six probit models were analyzed. The first set of models analyzed gross income for women and men. The probit results and marginal effects are shown in Table III. The second set of models analyzed women's and men's perceptions of family business success. The results and marginal effects for these analyses are shown in Table IV. The third set of models analyzed the full sample of both female-controlled and male-controlled family businesses to determine the association of gender with performance. The results and marginal effects for the third set of models are shown in Table V.

Management control practices

In exploring *H1*, we first examine the relationship of management control implementation with objective and subjective performance. Both gross income models for men and women indicate that management control implementation and instituting formal measures to evaluate managers were statistically significant. For women respondents both management control implementation ($\beta = 0.04$, $\rho = 0.05$) and incorporating procedures to hold managers formally accountable ($\beta = 0.04$, $\rho = 0.05$) were positive and significant; thus, these management practices improve female-controlled businesses' gross income levels.

Variable	Estimate	Women		Estimate	Men	
		SE	Marginal effects		SE	Marginal effects
Age	0.733	0.061	0.029	0.096**	0.039	0.024
Age ²	-0.001	0.001	-0.000	-0.001***	0.000	-0.000
College	-0.346	0.285	-0.132	-0.128	0.189	-0.031
Rother	-0.758	0.594	-0.2901	-0.276	0.364	-0.077
Married	-0.580	0.391	-0.212	-0.220	0.272	-0.050
Copreneur	0.195	0.256	0.077	-0.023	0.176	-0.006
Bus Age	0.032***	0.008	0.013	0.013***	0.004	0.003
Total Employees	0.051***	0.145	0.020	0.104***	0.021	0.026
Management	0.041**	0.021	0.016	0.028*	0.017	0.007
Mngmt Acct	0.484**	0.228	0.185	0.466***	0.175	0.110
NonEcon Goal	-0.632**	0.251	-0.248	-0.018	0.194	-0.004
Successor	0.142	0.225	0.055	0.455**	0.193	0.102
Constant	-2.800*	1.622		-3.335***	10.081	
Log Likelihood	-119.643			-174.678		
Pseudo R ²	0.229			0.264		
n	224			352		

Note: ***, **, * Statistically significant at 0.01, 0.05, and 0.10 levels, respectively

Source: 2010 Intergenerational Farm and Non-Farm Family Business Survey

Table III.
Probit model for 2010
business gross income

Variable	Estimate	Women		Estimate	Men	
		SE	Marginal effects		SE	Marginal effects
Age	0.041	0.061	0.014	0.027	0.039	0.009
Age ²	-0.000	0.001	-0.000	-0.000	0.000	-0.000
College	-0.001	0.270	-0.000	-0.061	0.174	-0.021
Rother	0.482	0.525	0.180	-0.024	0.379	-0.008
Married	-0.671*	0.371	-0.252	0.221	0.277	0.072
Copreneur	0.142	0.512	0.047	0.230	0.167	0.078
Bus Age	0.006	0.005	0.002	0.005	0.003	0.002
Total Empl	0.055***	0.015	0.019	0.006**	0.003	0.002
Management	0.030	0.021	0.010	0.061***	0.017	0.021
Mngmt Acct	0.147	0.222	0.051	-0.089	0.161	-0.030
NonEcon Goal	-0.025	0.245	-0.008	0.023	0.182	0.008
Successor	0.282	0.219	0.099	0.393**	0.166	0.140
Constant	-2.466	1.609		-3.074***	1.074	
Log Likelihood	-116.948			-195.765		
Pseudo R ²	0.139			0.098		
n	224			352		

Table IV.
Probit model for
perceived business
success

Note: ***, **, *Statistically significant at 0.01, 0.05, and 0.10 levels, respectively
Source: 2010 Intergenerational Farm and Non-Farm Family Business Survey

Variable	Gross income			Perceived success		
	Estimate	SE	Marginal effects	Estimate	SE	Marginal effects
Female	0.099	0.465	0.034	0.372	0.463	0.130
Age	0.079**	0.032	0.027	0.033	0.032	0.011
Age ²	-0.001**	0.000	-0.000	-0.000	0.000	-0.000
College	-0.221	0.154	-0.074	0.006	0.144	0.002
Rother	0.432	0.300	-0.162	0.051	0.301	0.018
Married	-0.350	0.218	-0.112	-0.125	0.210	-0.044
Copreneur	0.014	0.142	0.005	0.185	0.137	0.062
Bus Age	0.018***	0.003	0.006	0.006**	0.002	0.002
Total Empl	0.072***	0.012	0.025	0.010***	0.003	0.003
Management	0.034**	0.017	0.012	0.063***	0.017	0.021
Mngmt Acct	0.472***	0.172	0.157	-0.117	0.161	-0.040
NonEcon Goal	-0.025	0.188	-0.009	0.070	0.179	0.024
F*Management	-0.004	0.026	-0.001	-0.024	0.026	-0.008
F*Mngmt Acct	-0.018	0.277	0.006	0.287	0.263	0.103
F*NonEcon Goal	-0.511*	0.296	-0.193	-0.193*	0.117	-0.014
Successor	0.345**	0.142	0.115	0.323**	0.130	0.114
Constant	-2.839***	0.888		-3.002***		
Log Likelihood	-302.758			-322.52		
Pseudo R ²	0.23			0.09		
n	576			576		

Table V.
Probit models for
business gross income
and perceived success
for male and female-
controlled businesses

Notes: F* denotes interaction term such as Female*Management, Female* Management Accountability, and Female*Non-Economic Goal. ***, **, *Statistically significant at 0.01, 0.05, and 0.10 levels, respectively
Source: 2010 Intergenerational Farm and Non-Farm Family Business Survey

A one point increase in the management practices measure increases the probability of having gross income greater than \$50,000 by 1.6 percent. If women have a policy to hold managers accountable for actions, then the probability that they will have a gross income greater than \$50,000 is improved by 18.5 percent compared to those that have no such policy. For male respondents, both measures of management practices exhibiting positive

and significant effects (management control implementation: $\beta = 0.028$, $\rho = 0.10$; manager evaluation: $\beta = 0.466$, $\rho = 0.01$). This indicates that a one point increase in management practices increases the probability of having high gross income by 0.7 percent, while implementing accountability policies for managers increases the probability of high gross income by 11 percent vs those that do not. Given these results, we find full support for *H1* that implementation of management controls and formal evaluation procedures for managers increase the likelihood of high gross income.

H2 examined the relationship of these same management practices measures for their role on subjective performance. Results for women respondents indicate that women do not appear to measure subjective performance based on implementation of management practices within the firm (management control implementation: $\beta = 0.030$, $\rho = \text{ns}$; manager evaluation: $\beta = 0.147$, $\rho = \text{ns}$). Men's subjective performance, however, was positively and significantly improved by the implementation of management controls ($\beta = 0.061$, $\rho = 0.01$). Increasing the level of management practices increased the probability that men perceived their business as successful by 2.1 percent. Procedures to formally evaluate managers did not hold a significant effect on subjective performance for men ($\beta = -0.089$, $\rho = \text{ns}$). Based on these results, only partial support was determined for *H2*.

Goals

H3 and *H4* examined the role of declaring non-economic vs economic-centered goals as the primary goal of the firm. We examined non-economic oriented goals via our analyses. For women respondents, setting non-economic goals as the primary goal of the firm held a significant, negative effect ($\beta = -0.632$, $\rho = 0.05$) on the likelihood that they would report higher levels of gross income; thus, since goal setting is a binary measure, women who set primarily economic oriented goals for the firm are more likely to report higher levels of gross income for the firm. In fact, non-economic goals decrease the probability of reporting high gross income by 24.8 percent vs having a primarily economic goal for female-controlled firms. The type of goal was not found to influence men's gross income ($\beta = -0.018$, $\rho = \text{ns}$). Additionally, the primary goal of the respondent was not found to influence women ($\beta = -0.025$, $\rho = \text{ns}$) nor men ($\beta = 0.023$, $\rho = \text{ns}$) in their subjective assessments of business success. Given these results, only partial support was found for *H3* and no support was found for *H4*.

Gender differences in performance

H5 and *H6* explored the role of gender on gross income levels and perceptions of business success. We hypothesized that although women would report lower objective performance than males, women would report higher subjective performance. Our results indicate that performance for male and female-controlled family businesses does not differ by gender ($\beta = 0.099$, $\rho = \text{ns}$).

In the full sample model, we interact the gender variable with each of the independent variables to determine if there is an interaction effect. Our results indicate that there is an interaction effect of gender on the relationship between economic goals and both objective ($\beta = -0.511$, $\rho = 0.10$) and subjective performance ($\beta = -0.193$, $\rho = 0.10$). These results indicate that when non-economic goals are stipulated as the primary goal of the firm, then women report lower levels of gross income than men. The same pattern holds for perceived success. In the subsequent sections, we evaluate the influence of the controlling variables on gross income and perceived business success.

Control variables in business gross income model

Several controlling variables held a significant relationship with the probability that both female and male-controlled family businesses report higher gross income. The age of the

business and the number of employees were positive and statistically significant at the 1 percent level for female-owned businesses. A one-year increase in business age increases the probability of reporting high gross income by 1.3 percent, while increasing the number of employees by one improves the probability of having high gross income by 2 percent.

Interestingly, the business gross income model for men was slightly different than that for women. In the male model, respondent's age was statistically significant and positively associated with high gross income; although there are diminishing returns to age. Business age and number of employees were also positive and statistically significant at the 1 percent level. Increasing age and number of employees increases that probability of having high income by 0.3 and 2.6 percent, respectively. In contrast to the female model in which having a successor was not statistically significant, males reporting having named a successor exhibits a positive and statistically significant effect at the 5 percent level. Male owners who have identified a successor improves the probability for high gross income by 10.2 percent vs male owners that have not identified a successor.

Control variables in perception of success model

Perception of success is a subjective measure of family business success. In the model analyzing female owners' perceptions of family business success, being married was negative and statistically significant at the 10 percent level. The probability that married women thought their family business was very successful decreased by 25.2 percent vs single women. However, number of employees was positive and statistically significant at the 1 percent level. Increasing the number of employees improved the probability of perceiving the business as successful by 1.9 percent. Number of employees was also positive and statistically significant at the 1 percent level for men. Increasing the number of employees increased the probability that men perceived their business as successful by 0.2 percent. Having chosen a successor was positive and statistically significant at the 5 percent level for men. Male owners who had chosen a successor have a 14 percent increased probability of perceiving their business as successful vs those who had not chosen a successor.

Control variables in full sample models for business gross income and perceived success

In the full sample models age of the owner was statistically significant in the gross income model and showed diminishing returns to age. Business age and total employees were positive and statistically significant in both models. Increasing the age of the business and the number of employees increases the probability of objective and subjective success. Identifying a successor was also positive and statistically significant in both models. Business owners who have identified a successor have a 14 and 13 percent higher probability of reporting high gross income and high-perceived success than those who had not identified a successor.

Discussion

Prior research indicates that family businesses have fewer management control practices in place (Chrisman *et al.*, 2010) and are more likely to have non-economic goals for their firm (Chrisman *et al.*, 2012). Founded in agency theory, we analyze the performance effects of management controls and accountability and goals for the business across both male and female-controlled farm and rural family businesses. Our research is among the first attempts to determine if these factors jointly influence objective and subjective performance differently across male and female-controlled farm and rural family businesses.

Academic implications

We believe our results provide important academic implications for the family business literature. Our analyses suggest that strategic management practices via management

control implementation, as well as the formal monitoring of managers, are of significance to the objective performance (i.e. gross income) of both men and women-controlled farm and rural family businesses. Agency theory suggests that family businesses may benefit from lower agency costs, and as a result may implement fewer management controls (Chrisman *et al.*, 2010). However, as Chrisman *et al.* (2007) determined, implementation of management controls heightens objective performance for private family businesses. Viewed from an agency theory perspective, our results corroborate these assertions, and suggest that additional attention to family business heterogeneity, regarding purposeful implementation of management control mechanisms is merited, as both men and women-owned businesses see significant objective performance effects for implementation of such controls.

Researchers in family business debate the usefulness of agency theory in examining family firm strategies and behaviors (e.g. Chrisman *et al.*, 2012; De Massis *et al.*, 2014; Schulze *et al.*, 2001). Given the significance of such agency-controlling behaviors in promoting objective performance in particular, agency theory appears to hold as a relevant view for strategically managing family firms. More detailed and finer-grained measures related to the timing and depth of management control implementation within family businesses will likely shed important light on the optimal degree of professionalization through such practices, as well as the role of other strategic management practices as agency cost reducing measures.

Agency theory likewise necessitates the primacy of economic goals for the firm (Zahra, 2005; De Massis *et al.*, 2014); however, family firms have long been argued to pursue socio-emotional wealth, which is not necessarily congruent with purely economic goals (e.g. Gomez-Mejia *et al.*, 2001). We found that communicating economic vs non-economic goals does not influence satisfaction with the firm's performance, which is in alignment with the tenets of theories such as SEW. Further, establishing economic vs non-economic goals for the firm does not appear to influence male-owned family businesses. However, importantly, we found that non-economic goals do negatively influence the gross income levels of female-owned family businesses. Such results appear to align with the assertions of Morris *et al.* (2006), which suggest that growth is a conscious choice for women.

Women with non-economic goals may choose to restrict the growth of their business, and as such, may see little value in strategically implementing management practices, such as management controls. By jointly considering goals and implementation of management control practices, we see that strategic management practices do augment women-owned firms' performance, while establishing primarily non-economic goals for the firm detracts from their firms' performance. We believe these results lend credence to the importance of identity and self-construal theories to examinations of gender as a source of heterogeneity in family business research, and encourage future researchers to consider such theory bases to further examine women's goals and behaviors in female-led family businesses (e.g. Peake *et al.*, 2017).

Finally, we find that comparisons of male and female-controlled businesses in the same industry context, reveal men and women do not differ in a statistical sense in either objective or subjective performance. This is an important finding, given the mixed results across the family business literature regarding the impacts of gender on performance. Our results do indicate, however, that strategic management practices via control measures and goals for the firm influence objective and subjective performance differently across male and female-controlled farm and rural family businesses. Some of these important differences may be further examined in light of the business and owner characteristics. For example, men having identified a successor significantly increases the probability of higher gross income levels; however, no successor effect was found for female-controlled businesses. Kimhi *et al.* (1995) suggested that the presence of a successor motivated the family business owner to invest in the business and increase income and it seems that based on our results this is more prevalent in male-controlled businesses than female-controlled businesses.

Our model was much less helpful in identifying factors that influence the probability that the owner perceives the business as successful. Female-controlled businesses were more likely to be viewed as successful if the firm is larger (i.e. greater number of employees) and were less likely to be viewed as successful if the owner was married. The negative relationship between marriage and perceived success is a particularly interesting result, as a spouse is often seen as a boost to male-operator morale (Astone *et al.*, 2010; Song, 2007). However, research has shown that women may suffer from a marriage and motherhood income penalty (Marshall and Flaig, 2013; Bianchi *et al.*, 2000; Mattingly and Bianchi, 2003); and indeed in this instance perhaps the work-life demands are greater for married female operators, leading them to feel less able to meet the many demands of both the home and the business. Men were more likely to indicate satisfaction with business performance if the business is larger, employs higher levels of strategic management, and if a successor has been identified, which may play into the more agentic behaviors or men described in self-construal theory (Eagly, 2009).

Practical implications

Recent research in agricultural economics indicated that both farm and rural women business owners found gaining access to information about management “best practices,” a major challenge to success (Albright, 2006). Given that management controls and strategies and monitoring of managers is associated with higher performance in female-controlled farm and rural family businesses, yet does not influence subjective performance assessment, our research likely holds important implications for women business owners in rural communities. Our management controls measure consists of monitoring of marketing, costs and expenses, financial records, employees, job responsibilities, and goals. Given the importance of this measure as a single factor, it appears that women business owners in rural communities need assistance in planning for the implementation of such practices, as well as monitoring their effectiveness. Further, to our knowledge, comparable research is not available for farm and rural men-controlled businesses; thus, this is an important first step in identifying important gender-specific policies and procedures that may affect performance. Further research is needed in this area, both to examine our results in different contexts and to explore whether family and nonfamily farm and rural businesses differ concerning these same aspects.

Conclusions

Our analysis of the economic and subjective performance of 576 male and female-controlled SME family farm and rural businesses in the US yields important results and implications for both academics and practitioners. We examine the joint effects of management control practices, firm goals, gender, and business/owner characteristics for their effects on both objective and subjective firm performance for rural and farm family businesses. We find that strategic management practices leveraged via management control mechanisms and formal monitoring of managers are key predictors of gross income for both male and female-controlled farm and rural family businesses. By investing in higher levels of intentional strategic management practices, both male and female-controlled family firms may see improvements in gross income.

Our results underscore the importance of goals for women, and the detrimental effect that non-economic goals have on female-controlled family business gross income. However, non-economic vs economic goals did not influence subjective performance for female-controlled farm and rural family businesses. Thus, this particular element seems to effect income level only, not satisfaction with the business’s performance. Also in line with goals, men appear to derive motivation by having identified a successor, since this particular variable positively improves both gross income levels and being satisfied with the

performance of the business. Consequently, keeping the business in the family appears to be an important goal for men, although declaring profitability or other economic goals as the primary goal of the firm does not.

Additionally, since agency theory argues that family businesses may have a competitive advantage in reducing agency costs, our study paves the way for future researchers to examine this phenomenon in different contexts. Future research would also benefit from a greater understanding of the relative importance of strategic management practices via monitoring and control mechanisms. For example, practically farm and rural business owners would benefit from knowing which management control practices provide the most “bang for their buck”; thus allocating their scarce human resources to the best use.

References

- Albright, C. (2006), “Who’s running the farm? Changes and characteristics of Arkansas women in agriculture”, *American Journal of Agricultural Economics*, Vol. 88 No. 5, pp. 1315-1323.
- Andersson, T., Carlsen, J. and Getz, D. (2002), “Family business goals in the tourism and hospitality sector: case studies and cross-case analysis from Australia, Canada, and Sweden”, *Family Business Review*, Vol. 15 No. 2, pp. 89-106.
- Astone, N.M., Dariotis, J.K., Sonenstein, F.L., Pleck, J.H. and Hynes, K. (2010), “Men’s work efforts and the transition to fatherhood”, *Journal of Family and Economic Issues*, Vol. 31 No. 1, pp. 3-13, doi: 10.1007/s10834-009-9174-7.
- Astrachan, J. and Jaskiewicz, P. (2008), “Emotional returns and emotional costs in privately-held family businesses: advancing traditional business valuation”, *Family Business Review*, Vol. 21 No. 2, pp. 139-150.
- Bianchi, S.M., Milke, M.A., Syaer, L.C. and Robinson, J.P. (2000), “Is anyone doing the housework? Trends in the gender division of household labor”, *Social Forces*, Vol. 79 No. 1, pp. 191-228.
- Bird, B. and Brush, C. (2002), “A gendered perspective on organizational creation”, *Entrepreneurship Theory and Practice*, Vol. 26 No. 3, pp. 41-66.
- Birley, S. (1989), “Female entrepreneurs: are they really different?”, *Journal of Small Business Management*, Vol. 27 No. 1, pp. 32-37.
- Chell, E. and Baines, S. (1998), “Does gender affect business ‘performance’? A study of microbusinesses in business services in the UK”, *Entrepreneurship and Regional Development*, Vol. 10 No. 2, pp. 117-135.
- Chrisman, J.J., Chua, J.H. and Sharma, P. (2005), “Trends and directions in the development of a strategic management theory of the family firm”, *Entrepreneurship Theory and Practice*, Vol. 29 No. 5, pp. 555-576.
- Chrisman, J.J., Chua, J.H., Kellermanns, F.W. and Chang, E.P.C. (2007), “Are family managers agents or stewards? An exploratory study in privately held family firms”, *Journal of Business Research*, Vol. 60 No. 10, pp. 1030-1038.
- Chrisman, J.J., Chua, J.H., Pearson, A.W. and Barnett, T. (2012), “Family involvement, family influence, and family-centered non-economic goals in small firms”, *Entrepreneurship Theory and Practice*, Vol. 36 No. 2, pp. 267-293.
- Chrisman, J.J., Kellermanns, F.W., Chan, K.C. and Liano, K. (2010), “Intellectual foundations of current research in family business: an identification and review of 25 influential articles”, *Family Business Review*, Vol. 23 No. 1, pp. 9-26.
- Chua, J.H., Chrisman, J.J., Steier, L.P. and Rau, S.B. (2012), “Sources of heterogeneity in family firms: an introduction”, *Entrepreneurship Theory and Practice*, Vol. 36 No. 6, pp. 1103-1113.
- Clark, S.A. and Marshall, M.I. (2010), “Women, goal orientation, and success: a family business perspective”, *Proceedings of United States Association of Small Business and Entrepreneurship, Nashville, TN, January 14-17*.

- Collins-Dodd, C., Gordon, I.M. and Smart, C. (2004), "Further evidence on the role of gender in financial performance", *Journal of Small Business Management*, Vol. 42 No. 4, pp. 395-417.
- Danes, S.M. and Olson, P.D. (2003), "Women's role involvement in family businesses, business tensions, and business success", *Family Business Review*, Vol. 16 No. 1, pp. 53-68.
- Danes, S.M., Stafford, K. and Loy, J.T.-C. (2007), "Family business performance: the effects of gender and management", *Journal of Business Research*, Vol. 60 No. 10, pp. 1058-1069.
- De Massis, A., Kotlar, J., Chua, J.H. and Chrisman, J.J. (2014), "Ability and willingness as sufficiency conditions for family-oriented particularistic behavior: implications for theory and empirical studies", *Journal of Small Business Management*, Vol. 52 No. 2, pp. 344-364.
- Du Rietz, A. and Henrekson, M. (2000), "Testing the female underperformance hypothesis", *Small Business Economics*, Vol. 14 No. 1, pp. 1-10.
- Eagly, A.H. (2009), "The his and hers of prosocial behavior: an examination of the social psychology of gender", *American Psychologist*, Vol. 64 No. 8, pp. 644-658.
- Eddleston, K.A., Kellermanns, F.W. and Sarathy, R. (2008), "Resource configuration in family firms: linking resources, strategic planning and technological opportunities to performance", *Journal of Management Studies*, Vol. 45 No. 1, pp. 26-50.
- Fama, E.F. and Jensen, M.C. (1983), "Separation of ownership and control", *The Journal of Law & Economics*, Vol. 26 No. 2, pp. 301-325.
- Fitzgerald, M.A., Haynes, G.W., Schrank, H.L. and Danes, S.M. (2010), "Socially responsible processes of small family business owners: exploratory evidence from the National Family Business Survey", *Journal of Small Business Management*, Vol. 48 No. 4, pp. 524-551.
- Getz, D. and Carlsen, J. (2000), "Characteristics and goals of family and owner-operated businesses in the tourism and hospitality sectors", *Tourism Management*, Vol. 21 No. 6, pp. 547-560.
- Getz, D. and Petersen, T. (2005), "Growth and profit-oriented entrepreneurship among family business owners in the tourism and hospitality industry", *International Journal of Hospitality Management*, Vol. 24 No. 2, pp. 219-242.
- Gomez-Mejia, L.R., Nunez-Nickel, M. and Gutierrez, I. (2001), "The role of family ties in agency contracts", *Academy of management Journal*, Vol. 44 No. 1, pp. 81-95.
- Greenwood, R. (2003), "Commentary on: 'toward a theory of agency and altruism in family firms'", *Journal of Business Venturing*, Vol. 18 No. 4, pp. 491-494.
- Hammond, N.L., Pearson, A.W. and Holt, D.T. (2016), "The quagmire of legacy in family firms: definition and implications of family and family firm legacy orientations", *Entrepreneurship Theory and Practice*, Vol. 40 No. 6, pp. 1209-1231.
- Hansson, H., Ferguson, R., Olofsson, C. and Rantamäki-Lahtinen, L. (2013), "Farmers' motives for diversifying their farm business – the influence of family", *Journal of Rural Studies*, Vol. 32, pp. 240-250.
- Hunter, E.G. and Rowles, G.D. (2005), "Leaving a legacy: toward a typology", *Journal of Aging Studies*, Vol. 19 No. 3, pp. 327-347.
- James, H.S. (1999), "What can the family contribute to business? Examining contractual relationships", *Family Business Review*, Vol. 12 No. 1, pp. 61-72.
- Kalleberg, A.L. and Leicht, K.T. (1991), "Gender and organizational performance: determinants of small business survival and success", *The Academy of Management Journal*, Vol. 34 No. 1, pp. 136-161.
- Kimhi, A., Kisleev, Y. and Arbel, S. (1995), *Intergenerational Succession on Israeli Family Farms. Preliminary Evidence from Panel Data, 1971-1988*, working paper, Department of Agricultural Economics, Hebrew University.
- Leaptrott, J. (2005), "An institutional theory view of the family business", *Family Business Review*, Vol. 18 No. 3, pp. 215-228.
- Lee, Y.G., Jasper, C.R. and Fitzgerald, M.A. (2010), "Gender differences in perceived business success and profit growth among family business managers", *Journal of Family and Economic Issues*, Vol. 31 No. 4, pp. 458-474.

- Loscocco, K.A. and Leicht, K.T. (1993), "Gender, work-family linkages, and economic success among small business owners", *Journal of Marriage and the Family*, Vol. 55 No. 4, pp. 875-887.
- Marshall, M.I. and Flaig, A. (2013), "Marriage, children, and self-employment earnings: an analysis of self-employed women in the US", *Journal of Family and Economic Issues*, Vol. 35 No. 3, pp. 313-322.
- Mattingly, M.J. and Bianchi, S.M. (2003), "Gender differences in the quantity and quality of free time: the US experience", *Social Forces*, Vol. 81 No. 3, pp. 999-1030.
- Miller, D., Le Breton-Miller, I. and Lester, R.H. (2013), "Family firm governance, strategic conformity and performance: institutional versus strategic perspectives", *Organization Science*, Vol. 24 No. 1, pp. 189-209.
- Morris, M.H., Miyasaki, N.N., Watters, C.E. and Coombes, S.M. (2006), "The dilemma of growth: understanding venture size choices of women entrepreneurs", *Journal of Small Business Management*, Vol. 44 No. 2, pp. 221-244.
- Naldi, L., Cennamo, C., Corbetta, G. and Gomez-Mejia, L. (2013), "Preserving socioemotional wealth in family firms: asset or liability? The moderating role of business context", *Entrepreneurship Theory and Practice*, Vol. 37 No. 6, pp. 1341-1360.
- Olson, P.D., Zuiker, V.S., Danes, S.M., Stafford, K., Heck, R.K.Z. and Duncan, K.A. (2003), "The impact of the family and the business on family business sustainability", *Journal of Business Venturing*, Vol. 18 No. 5, pp. 639-666.
- Orser, B.J., Riding, A.L. and Manley, K. (2006), "Women entrepreneurs and financial capital", *Entrepreneurship Theory and Practice*, Vol. 30 No. 5, pp. 643-665.
- Peake, W.O., Cooper, D., Fitzgerald, M.A. and Muske, G. (2017), "Family business participation in community social responsibility: the moderating effect of gender", *Journal of Business Ethics*, Vol. 142 No. 2, pp. 1-19.
- Philbrick, C.A. and Fitzgerald, M.A. (2007), "Women in business-owning families: a comparison of roles, responsibilities, and predictors of family functionality", *Journal of Family and Economic Issues*, Vol. 28 No. 4, pp. 618-634.
- Schulze, W.S., Lubatkin, M.H. and Dino, R.N. (2003), "Toward a theory of agency and altruism in family firms", *Journal of Business Venturing*, Vol. 18 No. 4, pp. 473-490.
- Schulze, W.S., Lubatkin, M.H., Dino, R.N. and Buchholtz, A.K. (2001), "Agency relationships in family firms: theory and evidence", *Organization Science*, Vol. 12 No. 2, pp. 99-116.
- Sharma, P. (2004), "An overview of the field of family business studies: current status and directions for the future", *Family Business Review*, Vol. 17 No. 1, pp. 1-36.
- Sirmon, D.G. and Hitt, M.A. (2003), "Managing resources: linking unique resources, management and wealth creation in family firms", *Entrepreneurship Theory and Practice*, Vol. 27 No. 4, pp. 339-358.
- Song, Y. (2007), "The working spouse penalty/premium and married women's labor supply", *Review of Economic Household*, Vol. 5 No. 3, pp. 279-304, doi: 10.1007/s11150-007-9013-2.
- Songini, L. and Gnan, L. (2009), "Women, glass ceiling, and professionalization in family SMEs: a missed link", *Journal of Enterprising Culture*, Vol. 17 No. 4, pp. 497-525.
- United States Department of Agriculture and National Agricultural Statistics Service (2007), "2007 census of agriculture: women farmers", available at: www.agcensus.usda.gov/Publications/2007/Online_Highlights/Fact_Sheets/Demographics/women.pdf (accessed October 30, 2013).
- United States Department of Agriculture, National Agricultural Statistics Service (2014), "2012 census of agriculture highlights. Farm demographics, US farmers by gender, age, race, ethnicity, and more", available at: www.agcensus.usda.gov/Publications/2012/Online_Resources/Highlights/Farm_Demographics/Highlights_Farm_Demographics.pdf (accessed October 20, 2016).
- Verheul, I. and Thurik, R. (2001), "Start-up capital: does gender matter?", *Small Business Economics*, Vol. 16 No. 4, pp. 329-345.
- Vesper, K. (1980), *New Venture Strategies*, Prentice-Hall, Englewood Cliffs, NJ.

- Villalonga, B. and Amit, R. (2006), "How do family ownership, control and management affect firm value?", *Journal of Financial Economics*, Vol. 80 No. 2, pp. 385-417.
- Watson, J. (2003), "Failure rates for female-controlled businesses: are they any different?", *Journal of Small Business Management*, Vol. 41 No. 3, pp. 262-278.
- Westhead, P. and Howorth, C. (2006), "Ownership and management issues associated with family firm performance and company objectives", *Family Business Review*, Vol. 19 No. 4, pp. 301-316.
- Westhead, P. and Howorth, C. (2007), "Types of private family firms: an exploratory conceptual and empirical analysis", *Entrepreneurship and Regional Development*, Vol. 19 No. 5, pp. 405-431.
- Zahra, S.A. (2005), "Entrepreneurial risk taking in family firms", *Family Business Review*, Vol. 18 No. 1, pp. 23-40.
- Zahra, S.A., Hayton, J.C. and Salvato, C. (2004), "Entrepreneurship in family vs. non-family firms: a resource-based analysis of the effect of organizational culture", *Entrepreneurship Theory and Practice*, Vol. 28 No. 4, pp. 363-381.

Further reading

- Getz, D. and Carlsen, J. (2005), "Family business in tourism: state of the art", *Annals of Tourism Research*, Vol. 32 No. 1, pp. 237-258.

Corresponding author

Whitney Peake can be contacted at: whitney.peake@wku.edu

For instructions on how to order reprints of this article, please visit our website:

www.emeraldgroupublishing.com/licensing/reprints.htm

Or contact us for further details: permissions@emeraldinsight.com

Reproduced with permission of copyright owner. Further reproduction prohibited without permission.