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## **Female underperformance or goal-oriented behaviour?**

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**Purpose**

The purpose of this study is to examine the mediating effect of an owner's growth goal on the relationship between the gender of new venture owners and the growth outcomes of their ventures.

**Design/methodology/approach**

This is a quantitative study using a large, national database and structural equation modelling.

**Findings**

Findings indicate that the negative relationship between gender and growth outcomes is fully mediated by the growth goals of new venture owners, their available internal resources, and the amount of time and money they are able (prepared) to invest in their new venture.

**Research limitations/implications**

Research implications include the need to better understand the impact of goal setting on new venture performance outcomes.

**Practical implications**

Government policies (for example, to stimulate firm growth) need to be designed having a proper understanding of the various motives/goals that entrepreneurs might have when launching a new venture. Similarly, anyone providing advice to individuals involved in establishing a new venture should, before providing that advice, ensure they have a clear understanding of the individual's goals.

**Social implications**

Social implications include a need to better understand the negative impact lower available human and financial capital can have on the goals set by female new venture owners and the outcomes achieved by those ventures.

**Originality/value**

This research makes an original contribution to the literature by demonstrating: the impact of gender on human, social and financial capital; the influence of these resources on new venture goals; and, in turn, the influence of goals on new venture performance outcomes.

**Keywords**

New venture performance, Gender, Goals, Resources, Human capital, Social capital, Financial capital

## **Female Underperformance or Goal Orientated Behavior?**

### **Introduction**

In their review of prior studies examining firm performance, Klapper and Parker (2011, p. 7) conclude that “women entrepreneurs tend to underperform relative to their male counterparts.” However, Jennings and Brush (2013) draw attention to a growing number of studies challenging the belief that female-owned ventures ‘underperform’ male-owned ventures, and Robb and Watson (2012) suggest that gender differences in firm performance can, at least partly, be explained by issues such as the way performance is measured. Further, Ahl (2006, p. 597) notes that the results of much prior research suggests that “the differences between individuals, even within the same sex, are invariably much larger than the average difference, if any, between the sexes.” Indeed, several studies (based on data from the Global Economic Monitor) have indicated that, when making entrepreneurial decisions, women are typically influenced by the same factors that affect men and in the same direction (Minniti et al. 2003; Verheul et al. 2006). This suggests that, rather than focusing exclusively on gender differences in firm performance, developing a better understanding of the key factors that can potentially impact new venture performance (and how these factors might vary by gender) could be more helpful to researchers, and also to policy makers wanting to promote new venture growth.

For example, it has been suggested that when assessing firm performance, it is important to consider the goals of the owner (Coleman, 2016; Wallace and Boyd, 2017) because goal theory argues that “goals serve a directive function; they direct attention and effort toward goal-relevant activities and away from goal-irrelevant activities” (Locke and Latham 2002, p. 706). Indeed, Baum and Locke (2004, p. 590) note that no other theory of motivation “has deeper or broader empirical support at the individual, group, and unit level.” Consistent with this view, Orser and Hogarth-Scott (2002) find support for the proposition that having an intention to grow a new venture in turn leads to actions that, ultimately, result in actual business growth. Orser and Hogarth-Scott (2002) conclude that their

findings suggest that an owner's growth goal is a key ingredient to enterprise development. Further, the findings presented by Davis and Shaver (2012) serve to illustrate how the growth intentions of both male and female new venture owners can differ based on their career stage and family status and Hechavarría et al. (2017) report that compared to men women entrepreneurs are more likely to emphasize social goals over economic value creation goals.

While the growth goal of an owner is likely to be the key driver of new venture growth outcomes, there are two additional factors that should also be considered. Firstly, how are owners' internal resources (human, financial, and social capital) likely to affect the growth target they set for their new ventures? As noted by Jennings and Brush (2013), an entrepreneur's growth expectation (goal) is likely to correspond with her/his capabilities for managing growth, which will largely be determined by the owner's human, financial and social capital (Greene 2000). Secondly, how does an owners' growth goal impact the resources (money and time) they invest in their new ventures and, in turn, how does this impact the performance outcomes of those ventures. Sullivan and Meek (2012) suggests that new venture owners will engage in actions (such as investing time and money in their new ventures) to the extent they believe those actions will result in valued outcomes. As demonstrated in the findings presented by Dunkelberg et al. (2013, p. 237), new venture outcomes "are ultimately the result of entrepreneurial resource allocation decisions", which are driven by the owner's goals when launching a new venture. Further, recent research indicates that female entrepreneurs are more likely to make a voluntary exit rather than to experience business failure (Justo et al. 2015).

This study investigates how owners' available internal resources, their growth goals, and the amount of money and time they are prepared to invest in their new ventures impacts the growth outcomes of those ventures. To examine this issue, we use CAUSEE (Comprehensive Australian Study of Entrepreneurial Emergence) data collected over a period of four years from a representative sample of 559 respondents who owned (or partly owned) a young firm (less than four years old). This study

contributes to entrepreneurship theory relating to the female underperformance hypothesis by taking into consideration the impact of available internal resources on the goals set by new venture owners and, in turn, the impact of their goals on the resources they invest in their new ventures and, ultimately, the growth outcomes of those ventures.

In the next section, we provide a brief review of the literature that gave rise to the hypotheses we test. This is followed by a description of the data and methods used to test our hypotheses. Our results are then presented and discussed. We conclude with a summary of our key findings and their implications, together with the study's limitations and suggestions for future research.

## **Literature Review and Hypothesis Development**

### *Gender and New Venture Growth Outcomes*

We specifically focus on growth outcomes because Baum and Locke (2004, p. 588) argue that new venture growth provides “valued economic and social gains” (particularly in the form of job creation), which is a key focus of policy makers internationally. Venture growth is also considered by many to be the essence of entrepreneurship, and it is both easily measured and well understood (Kirzner 1985). Having said that, we acknowledge that very few firms exhibit sustained periods of growth (Storey 2011) and, indeed, those that do grow typically grow very slowly (Jennings and Brush 2013). Nevertheless, Manolova et al. (2012, p. 7) note that growth is “generally agreed to be a worthy goal for most firms” and “is widely celebrated in the media.”

As noted earlier, Klapper and Parker (2011) conclude that previous research suggests that female-owned firms ‘underperform’ relative to male-owned firms on key performance outcome measures such as employment growth (Kepler and Shane 2007). Hence, as a starting point, we propose that:

**Hypothesis 1:** New ventures established by female entrepreneurs will exhibit lower growth than those established by male entrepreneurs.

## *The Mediating Effect of an Owner's Growth Goal on the Relationship between Gender and New Venture Growth Outcomes*

Assuming support is found for H1, the primary purpose of the current study is then to provide a better understanding of the factors contributing to the (so-called) 'underperformance' of female-owned new ventures (Kepler and Shane 2007; Klapper and Parker 2011). More specifically, we aim to test the argument advanced by Watson et al. (2014) that owners' internal resources and growth goals, together with the time and money they are able (prepared) to invest in their new ventures, will fully mediate the relationship between gender and new venture growth outcomes.

The first factor we examine is the growth intention of the founder because the theory of planned behavior (Ajzen 1991) argues that intentions drive the behavior needed to achieve a desired outcome (Cassar 2006; Wiklund and Shepherd 2003). As noted by Manolova et al. (2012, p. 8), "[i]ntentions have proven to be the best predictor of planned behavior, particularly in the context of new businesses, which emerge over time and involve considerable planning." This view is supported by Baum and Locke (2004, p. 595), whose findings confirm the belief that the growth goal of a new venture owner is a highly significant predictor of actual growth outcomes. Similarly, Davis and Shaver (2012) report that the growth intentions of new venture owners are the chief contributor to the future growth of their ventures.

Further, Davis and Shaver (2012, p. 496) suggest that differences in the growth outcomes of male- and female-owned new ventures may emerge as the result of systematic differences in the growth intentions of male and female new venture owners. Consistent with this proposition, Cliff (1998) suggests that female owners are more likely than their male counterparts to set a lower growth threshold for their venture to ensure that it remains at a size the owner is comfortable managing. This view is supported by Morris et al. (2006, p. 221) who argue that "growth is a deliberate choice and that women have a clear sense of the costs and benefits of growth and make careful trade-off decisions."

More specifically, Duberley and Carrigan (2013) report that when it comes to growing their firms, many women are self-limiting because they want to ensure they have the capacity to be appropriately involved in their children's upbringing.

Therefore, because goals direct action, we argue that the addition of growth intentions as a mediating variable (between gender and new venture growth outcomes) could help researchers and policy makers better understand the potential causes of reported differences in the growth outcomes of male- and female-owned new ventures. Hence we propose that:

**Hypothesis 2a:** Compared to their male counterparts, female entrepreneurs will set more modest growth goals for their new ventures.

**Hypothesis 2b:** An owner's growth goal will be positively associated with the new venture's growth outcome.

**Hypothesis 2c:** The growth goal of new venture owners mediates the relationship between gender and new venture growth outcomes.

### ***The Mediating Effect of Internal Resources on the Relationship between Gender and a New Venture Owner's Growth Goal***

As noted by Minniti and Nardone (2007), if people feel they have the necessary resources to be successful in business, they will be more likely to initiate a new venture and, presumably, will be more likely to set higher growth targets for their venture. Similarly, relying on resource-based theory, Brush and Chaganti (1999) argue that a founder's human resources will impact the performance outcomes of their new venture and, presumably, also the goals they set for their business. Consistent with these views, Davis and Shaver (2012) note that past research illustrates that an owner's available human, social, and financial capital impacts both new venture formation and growth. This proposition is supported in recent studies by Harrison et al. (2014), Lofstrom et al. (2013), Logan (2014), Lin (2016)



and Nguyen et al. (2014) illustrating how the decision to start a new venture is impacted by a person's human, financial and social capital.

As noted by Marvel, Davis and Sproul (2016, p.599), “[h]uman capital has emerged as a highly utilized theoretical lens through which scholars can better understand entrepreneurship.” Indeed, research suggests that the more human capital a person possesses (represented by the skills and knowledge they have acquired through schooling and on-the-job training/experience) the more successful they should be in creating (and growing) a new venture (Bruderl, et al. 1992; Schultz 1980; Storey 2011). Consistent with this proposition, many empirical studies report robust associations between human capital and entrepreneurial success (for a meta-analysis, see Unger et al. 2011). For the purposes of this study, we are interested in the potential effect of human capital on a new venture owner's growth goal. We argue that entrepreneurs with greater human capital are able to set more ambitious growth goals because they are more likely to have the ability to create and manage a fast growing firm (Baum and Locke 2004). Moreover, entrepreneurs with more human capital also have higher opportunity costs, which are the foregone earnings from paid employment, or an alternative start-up (Storey 2011). To the extent that the potential earnings from a new venture is one of the major drivers for engaging in entrepreneurship, entrepreneurs with higher levels of human capital are likely to set more ambitious goals for their new ventures in order to compensate for their higher opportunity costs (Cassar 2006; Storey 2011). With respect to gender differences in human capital, research suggests that (compared to their male counterparts) female entrepreneurs typically have fewer years of management/business experience (see, for example, Belcourt et al. 1991; Fischer 1992; Hisrich and Brush 1984; van Hulten 2012; Watkins and Watkins 1983) and this, in turn, is likely to result in female entrepreneurs setting more modest growth goals for their new ventures.

Financial capital is one of the most visible resources available to a new venture owner and can protect a new venture against random shocks that might otherwise limit the venture's capacity to

survive and grow (Cooper et al. 1994; Storey 2011). As noted by Coleman (2000), new ventures with limited financial capital are unlikely to be able to develop the new products and services required to meet consumer demands and facilitate rapid growth. It seems, therefore, that a lack of funds constrains the development and growth of many new ventures (Winborg and Landstrom 2001) and, more specifically, it has been argued that the amount of financial resources individuals have available (and are willing) to commit to a new venture will determine the goals they seek to achieve from their ventures (Lofstrom et al. 2013). Further, the literature suggests there are significant gender differences with regard to the availability of financial capital. It seems that women typically earn significantly less in paid employment than men (Petersen and Morgan 1995; Weichselbaumer and Winter-Ebme 2005) and this translates directly into women having fewer financial resources available to them when launching a new venture. Research also suggests that women might have limited access to third-party funds because gendered stereotypical beliefs and expectations (Gupta et al. 2009) tend to limit the ability of women to have credit histories attractive to resource providers and/or to engage the interest of loan officers, angel investors, and venture capitalists (see, for example, Carter and Rosa 1998; Gatewood et al. 2003; Marlow and Patton 2005; Riding and Swift 1990). For this reason, prior research suggests that “acquiring capital and dealing with financial institutions is particularly difficult for women business owners” (Coleman 2000, p. 38). To the extent that this is true, it will mean that women seeking to start a new venture are likely to have less available financial capital (compared to their male counterparts) and, therefore, they are likely to set lower growth goals for their firms.

Social capital relates to the embeddedness of individuals in social relationships (networks) and the possible benefits and drawbacks associated with these networks (Bourdieu 1986; Coleman 1988; Granovetter 1973). It is argued that through networking owners can (cost-effectively) gain access to resources not under their control and this, in turn, can potentially increase their firms’ chances of success (Carter et al. 2003; Watson 2007). This proposition is supported by recent research highlighting

the importance of networking (social capital) to both firm survival and growth, for both female and male SME owners (Watson 2012). Further, Arenius and Franzen (2016) note that social capital has long been found to be important for regional development. Therefore, with respect to a new venture owner's growth goal, it seems reasonable to suggest that entrepreneurs with more social capital (networks) will be able to both formulate and implement more ambitious growth goals. Having access, via their personal network, to a wide range of information about technologies, market niches, potential employees, and potential customers can improve the quality and profitability of a new venture opportunity (Davidsson and Honig 2003; Uzzi 1997). Empirical support for this proposition is provided by Estrin et al. (2013) and Liao and Welsh (2005), who show that social capital positively affects the growth aspirations of entrepreneurs. Further, Cromie and Birley (1992) argue that networks are the product of personal drive and historical experiences, and the social structure and domestic duties of many women might result in female (compared to male) entrepreneurs having fewer network contacts from which to acquire resources and information for their start-ups. As Munch et al. (1997) explain, housework and childrearing are extremely lonely forms of work, and this isolation results in many women having limited network contacts compared to men. Even where women move directly from paid employment into self-employment, it is likely they will have fewer network contacts because females typically occupy lower level positions within the organizations they leave, compared to the typical male. By way of contrast, a recent study suggests that (contrary to much of the prior research findings) female new venture owners do indeed access appropriate networks to gain the necessary advice needed to run their ventures (Watson 2012).

In summary, it would appear there is considerable research suggesting that the goals a new venture owner establishes for her/his business will be determined by the amount of internal resources they have available and:

... that women and men hold differing attitudes about the outcomes of growth, work within different reference groups, have different levels of start-up resources, and face different challenges in terms of marshalling the resources necessary for business growth. It follows, therefore, that women's business growth decisions may differ from those of men in systemic ways. (Orser and Hogarth-Scott 2002, p. 287).

Taken together, it seems reasonable to suggest that having access to appropriate resources not only informs the likelihood that a person will be involved in starting a new venture (De Clercq et al.), but will also impact the growth goal set for the new venture and, ultimately, the venture's growth outcome. More specifically, individuals starting new ventures with less human, financial, and social capital are likely to set more modest growth goals for their businesses, compared to individuals starting ventures with more human, financial, and social capital. Hence we propose that:

**Hypothesis 3a:** Compared to their male counterparts, female entrepreneurs will have fewer available internal resources (human, financial, and social capital) when establishing a new venture.

**Hypothesis 3b:** Internal resources are positively associated with a new venture owner's growth goal.

**Hypothesis 3c:** Internal resources mediate the relationship between gender and a new venture owner's growth goal.

### ***The Mediating Effect of Money and Time Invested on the Relationship between a New Venture Owner's Growth Goal and Growth Outcome***

Sullivan and Meek (2012) argue that individuals engage in actions to the extent they believe those actions will result in desirable outcomes. Therefore, having established their new venture, the individuals' growth goals will, in turn, determine the inputs (money and time) they need to invest in their businesses to achieve their desired outcomes. In support of this proposition, Dunkelberg et al. (2013) report that the goals of new venture owners have a significant (and substantial) impact on the resources (both time and money) they allocate to their firms, and this, in turn, determines the outcome

(survival, profitability, and growth) of their venture. Similarly, Orser and Hogarth-Scott (2002, p. 297) found that entrepreneurs who sought growth undertook the actions necessary to achieve growth, thus confirming their hypothesis that “business owners’ growth intentions lead to actions that result in business growth.” Hence we propose that:

**Hypothesis 4a:** An owner’s growth goal will determine the amount of money and time they invest in their new venture.

**Hypothesis 4b:** The amount of money and time invested in a new venture will determine the venture’s growth outcome.

**Hypothesis 4c:** The amount of money and time invested in a new venture mediates the relationship between a new venture owner’s growth goal and the venture’s growth outcome.

Figure 1 provides a summary of the theoretical model and hypotheses developed in this section.

Insert Figure 1 about here

## **Method**

This study investigates how an owner’s available internal resources, their growth goal, and the amount of money and time they are prepared to invest in their new venture affects new venture growth outcomes.

### *Data*

We use CAUSEE (Comprehensive Australian Study of Entrepreneurial Emergence) data collected from a representative sample of 559 respondents who owned (or partly owned) a young firm (less than four years old). CAUSEE is a panel study that follows nascent and young firms over time. The firms were identified via random digit dialing phone interviews of over 30,000 Australian households. Young firms are defined as businesses that were: four years or younger at the time of the screening interview; had already experienced a 12-month period with revenues exceeding costs for at least half of the time; and were sole or co-owned. Applying this procedure, 1,058 young firms were identified and of these

559 owners completed the first round interview in 2007 (Wave 1). Subsequent interviews were scheduled at 12 monthly intervals. In this study, we investigate the 309 firms that were still active in the market at the time of the third survey (Wave 3). Note that the remaining 250 firms had either: exited the market; been sold; declined to participate in the follow-up interviews; or simply could no longer be contacted by phone. Although focusing on surviving firms is standard procedure in studies analyzing panel data sets (see, for example, Robb and Watson 2012), it comes at the expense of excluding firms that exit the market early. This could potentially bias our findings if the survival (or non-response) rate of male-owned firms differs from that of female-owned firms. However, an examination of the closure rates over the three-year period of this study showed no statistical difference between the male- and female-owned new ventures. Further, we need to emphasize that while we believe the longitudinal nature of the data used to test our hypotheses is a major strength of our study, it necessarily results in a much smaller sample size than would be available if we were conducting a cross-sectional analysis, and this needs to be acknowledged as a potential limitation.

With respect to gender and firm ownership, we classified firms as female-owned (and coded '1') if all the owners were female. Similarly, firms were classified as male-owned (and coded '0') if all the owners were male. Note, therefore, that the female- and male-owned firms include both single owner and multiple owner firms (provided all owners are of the same gender). All firms with a mixed gender ownership structure were excluded from the analysis because this allowed for a cleaner test of gender differences. This procedure further reduced the sample to 200 firms, of which 80 were female-owned and 120 were male-owned. It should also be noted that distinguishing the male- and female-owned firms on the basis of their ownership structure at the time of the Wave 1 interviews has the drawback that any subsequent changes in the gender-ownership structure of the firm are not taken into account. However, the data reveal that a change in the gender-ownership structure of a firm is very rare. Indeed, of the 120 male-owned firms in Wave 1, 118 were still male-owned by Wave 3. Similarly,

of the 80 female-owned firms in Wave 1, 79 remained female-owned by Wave 3. We are, therefore, confident that our results are not biased by any subsequent changes in the gender-ownership structures of the firms we examine; that is, removing the three firms that experienced a change in their ownership structure over the period of this study does not alter our findings.

### *Variables*

Measurement of the variables we use to assess our hypotheses are discussed below. Note that we make full use of the longitudinal nature of the data set by using the information on the owners' internal resources (human, financial, and social capital) and their new venture growth goal collected in Wave 1 (W1), while the information regarding the money and time they invested in their new venture comes from Wave 2 (W2) and the new venture's growth outcome is based on the data collected in Wave 3 (W3).

#### *Internal resources (W1)*

Internal resources are measured by the owners' human, financial, and social capital. The owners' human capital is assessed on the basis of their collective management, start-up, and industry work experience, in years. The focus on this set of indicators echoes the empirical finding that human capital relating to the entrepreneurial task better explains entrepreneurial success than non-task related human capital, such as general education or general work experience (Unger et al. 2011). The three indicators we use (management, start-up, and industry work experience) measure different aspects of human capital. Thus, human capital is treated in the empirical model as a formative latent variable determined by these three indicators. Financial capital is measured as the amount of financial resources provided to the new venture by non-owners.<sup>1</sup> Social capital is measured on the basis of the number of major sources of help (in terms of information/advice) owners had accessed (from a list of 14 possible sources) during the process of establishing their new venture. This measurement procedure is based on an instrumental social capital approach, which emphasizes access to information and resources (see, for

example, Aldrich and Fiol 1994; Barney 1997) rather than network characteristics (for example, weak or strong ties). Note that instrumental social capital has been successfully used in entrepreneurship research (Samuelsson and Davidsson 2009).

#### *New venture growth goal (W1)*

An entrepreneur's growth goal is assessed by asking the respondent how many employees were expected to be working in the business in five years' time.

#### *Money and time inputs (W2)*

Money input is measured as the amount of financial resources owners invested in their new ventures during the past 12 months. This included any external funds that were raised for this purpose. Time input is measured as the hours per week owners currently devoted to working in their new ventures.

#### *New venture growth outcome (W3)*

The growth outcome for each new venture is assessed on the basis of the number of employees working in the business at the time of the third survey. Note that growth is one of the most often used indicators of new venture performance (see, for example, Davidsson 1991; Davidsson et al. 2010) and, indeed, some scholars even hold that "growth is the very essence of entrepreneurship" (Sexton 1997, p. 97). Although growth can be conceptualized in terms of various indicators (for example, assets, sales, et cetera), we adopted employment as our indicator because it is the most frequently used growth measure and had no missing values in our dataset. Note also that employment and sales growth are highly correlated ( $r = 0.74$ ) in our sample.

#### *Control variables*

We include industry, firm age and firm size as control variables. With respect to *Industry*, we use dummy variables representing six broad industries: 1) retail and wholesale; 2) health, education, and social services; 3) manufacturing, mining, and utilities; 4) construction and real estate; 5) business consulting services, finance, and insurance; and 6) other. *Firm age* is measured in years and indicates



how long the firm had been trading in the market at the time of the first interview (W1). *Firm size* is measured by the number of employees at the time of the first interview (W1).

### *Analysis*

To test our hypotheses, we adopted a partial least squares structural equation modelling (PLS-SEM) approach using the WarpPLS program (Kock 2013). PLS-SEM allowed us to examine the suggested relationships in the model and to examine the various mediating constructs (Baron and Kenny 1986; Gefen et al. 2000). PLS-SEM is distribution-free and independence free, differing from maximum likelihood-based methods that are used to analyze covariance structures. PLS-SEM can be used to estimate larger models and/or with smaller samples. PLS-SEM allows theoretical constructs (such as human capital, for example) to be incorporated directly into the measurement model as latent variables, which are measured by a number of manifest indicators. PLS-SEM can also be used to estimate the structural relationships between the latent variables using an ordinary least squares approach. Thus, PLS-SEM provides estimates for the loading of the observed items on the latent variables and for the path coefficients for the structural relationships between the latent variables. Model paths are tested for significance through a bootstrapping approach (here 10,000 data re-samples were used).

Mediation effects were assessed through Sobel's test (Baron and Kenny 1986). The Baron and Kenny (1986) procedure establishes a mediated effect if three requirements hold: there is a significant relationship between the independent variable and the dependent variable; there is a significant relationship between the independent variable and the mediating variable; and there is a significant relationship between the mediating variable and the dependent variable. If the relationship between the independent variable and the dependent variable remains significant after including the mediator, the mediating relationship is described as partial. Where the relationship between the independent variable and the dependent variable becomes insignificant after the inclusion of the mediating variable(s), the initial relationship is considered to be fully mediated.

## Results and Discussion

Table 1 presents the summary statistics and correlation matrix for the variables included in the model. As expected, Table 1 reports a significant negative correlation between female-owned new ventures and growth outcome (providing support for H1). However, there is also a significant positive correlation between growth goal and growth outcome (providing support for H2b). Similarly, there is a significant positive correlation between growth goal and human capital (in the form of management experience, start-up experience, and industry experience) and between growth goal and social capital, but not between growth goal and financial capital (providing some support for H3b). In support of H4b, there is also a significant positive correlation between both money and time invested in a new venture and growth outcome. To further investigate our hypotheses, the following sections present the results of our PLS-SEM analysis of the mediating effects of internal resources, growth goal, and time and money invested on the relationship between gender and new venture growth outcome.

Insert Table 1 about here

### *Gender and New Venture Growth Outcome*

Figure 2 presents our PLS-SEM results examining the relationship between gender and new venture growth outcome. In support of H1, the results suggest the existence of a significant path between female-owned new ventures and the growth outcome of those ventures (controlling for industry, firm age, and firm size). The model also has a good R-squared of 0.44.<sup>ii</sup> While this finding is consistent with prior research (Fischer et al. 1993), we suggest it is the result of the deliberate choice by many women to limit the growth of their new ventures (Cliff 1998) because of their relatively lower levels of available internal resources (compared to their male counterparts). To test this proposition, we next examine the mediating effect of an owner's growth goal on the relationship between gender and growth outcome.

Insert Figure 2 about here

*The Mediating Effect of an Owner's Growth Goal on the Relationship between Gender and New Venture Growth Outcome*

Although the results presented in Figure 2 (and Table 1) suggest that female-owned new ventures achieve significantly lower employment growth than male-owned new ventures, the results in Figure 3 suggest this relationship is fully mediated by the growth goal of the new venture owner. This model also has greater explanatory power ( $R^2 = 0.51$ ) than the model presented in Figure 2 ( $R^2 = 0.44$ ). It seems (in support of H2a) that women are more likely (than men) to set lower growth goals for their new ventures (Cliff 1998; Duberley and Carrigan 2013) and this, in turn, impacts the growth outcomes of their ventures (in support of H2b), thereby fully mediating the relationship between gender and new venture growth outcome (in support of H2c). As noted earlier, goals direct behavior (Baum and Locke 2004; Davis and Shaver 2012; Manolova et al. 2012), and our findings suggest that (compared to men) women typically set more modest growth goals for their new ventures and, as expected, this results in lower growth outcomes.

Insert Figure 3 about here

*The Mediating Effect of Internal Resources on the Relationship between Gender and a New Venture Owner's Growth Goal*

But why do women set more modest growth goals for their new ventures? To help answer this question, we start by examining the relationship between gender and internal resource availability. The results presented in Figure 4 suggest that (compared to males) females have less human and financial (but not social) capital when starting a new venture (partially supporting H3a). One possible explanation for our unexpected finding of no difference in the social (networking) capital of female and male entrepreneurs is that, when starting a new venture, “[w]omen may well recognize their deficiencies in the area of network contacts and proceed to develop them vigorously” (Cromie and Birley 1992, p. 249). This view is supported by Watson (2012), who reports little difference in the

networks accessed by male and female SME owners. In terms of the expected positive relationship between available internal resources and a new venture owner's growth goal, the results in Figure 4 confirm this relationship for human and social (but not financial) capital (partially supporting H3b). While the lack of a positive relationship between financial capital and an owner's growth goal is puzzling, we speculate this outcome is the result of the (less than ideal) variable we used to proxy for the financial capital the owner has available. As noted in Endnote 1, ideally we would like to have used the amount of financial resources the owner(s) has available to represent the owner's available financial capital but, unfortunately, this information was not available. We therefore elected to use the amount of financial resources provided to the new venture by non-owners as a proxy. However, only 15 (7.5%) of the 200 new ventures in our sample had secured funding from non-owners and therefore, the vast majority of our sample has a value of zero for this variable.

Insert Figure 4 about here

In summary, the results presented in Figure 4 support the proposition that new venture owners (irrespective of gender) who have higher levels of internal resources will be more likely to set higher growth goals. That is, a new venture owner's available internal resources fully mediates the relationship between gender and the new venture owner's growth goal (in support of H3c). Note that the model presented in Figure 4 (which includes human, financial, and social capital) explains considerably more of the variance in the growth goal variable ( $R^2 = 0.26$ ) than does the model presented in Figure 3 ( $R^2 = 0.09$ ). This suggests that available internal resources are crucial to explaining differences in the growth goals of new venture owners. It seems that (irrespective of gender) individuals starting new ventures with less human, financial, and social capital are likely to set more modest growth goals than individuals starting ventures with more available internal resources.

*The Mediating Effect of Money and Time Invested on the Relationship between a New Venture Owner's Growth Goal and the Venture's Growth Outcome*

Figure 5 provides the path analysis results for the full model. Consistent with goal theory and previous research (Dunkelberg et al. 2013; Orser and Hogarth-Scott 2002), the full model (which has a very good fit<sup>iii</sup>) shows a highly significant relationship between the growth goal of new venture owners and the amount of both money and time invested in their new venture, supporting H4a. Similarly, we find (in support of H4b) a highly significant relationship between the amount of both money and time invested in a new venture and the growth outcome of that venture. Again, this finding is consistent with prior research (Dunkelberg et al. 2013; Fasci and Valdez 1998; Robb and Watson 2012; Watson 2002). Finally, we also find support for the proposition that the amount of money and time invested in a new venture mediates the relationship between the growth goal of owners and growth outcomes (in support of H4c). However, after incorporating the amount of both money and time invested in a new venture, there is still a significant relationship between the growth goal of owners and growth outcomes, albeit with a reduced path coefficient (0.25 compared to 0.31 in Figure 3). This suggests that money and time invested only partially mediates the relationship between the growth goal of owners and growth outcomes. Note also that incorporating both money and time invested into the model, together with the available internal resources (human, financial, and social capital), raises the explained variance in new venture growth outcomes from 51% in Figure 3 to 72% in Figure 5.

Insert Figure 5 about here

In summary, it seems that available internal resources, the growth goal of owners, and the amount of money and time owners are prepared to invest in their new ventures fully mediates the relationship between gender and new venture growth outcomes.

## **Conclusion**

Our findings support the proposition that when assessing the growth outcomes of new ventures (and, more particularly, when comparing the growth outcomes of male- and female-owned new ventures) it is important to take a broader view that incorporates the many variables that, ultimately, can impact

new venture outcomes. This study contributes to entrepreneurship theory relating to the female underperformance hypothesis by taking into consideration the effect of resources on entrepreneurs' goals and the effects of their goals on investment of resources and ultimately firm growth. We find that it is important to pay due regard to the owner's growth goal because growth intentions appear to be the "chief contributor to the future growth of a firm" (Davis and Shaver 2012, p. 495). Our findings suggest that females may set lower growth goals for their new ventures because they generally have less available human capital (in the form of management, start-up, and industry experience), and this, in turn, results in female-owned new ventures achieving lower growth outcomes (than their male counterparts). This is not to say, however, that female firm owners 'underperform' male firm owners; they simply set lower growth goals (on average) for their new ventures, which, in turn, impacts both the time and money they invest in their new ventures and the outcomes they achieve from those ventures. This finding confirms the need for goals to be included "in theoretical and empirical analyses of entrepreneurship" (Dunkelberg et al. 2013, p. 237) and, in particular, the importance of re-conceptualizing firm performance indicators to include differences in both the goals of owners and their access to entrepreneurial capital (Shaw et al. 2009).

A major strength of this study is the longitudinal nature of the data used to test our hypotheses. Because "[f]irm growth is not instantaneous", longitudinal data is required to test any propositions that link motivation to growth outcomes and, as a result, such studies are relatively scarce (Wiklund and Shepherd 2003, p. 1920). As noted by Henry et al. (2015), prior research into gender and entrepreneurship has typically exhibited an over-reliance on cross-sectional designs. While the longitudinal design we adopt can be seen as a major strength of our study, we need to acknowledge that the relatively small sample size available for our longitudinal analysis is a potential weakness/limitation. However, as noted earlier, it is important to recognize that a longitudinal study necessarily reduces the sample size that would otherwise be available in a cross-sectional study using

the same dataset. Two further potential weaknesses also need to be acknowledged. First, as noted earlier, the proxy variable we use to assess a person's available financial capital was not ideal and may have led to our finding of no association between individuals' available financial capital and the growth goal they set for their new venture. Second, as our data relates to only one country it might be inappropriate to generalize our findings to other countries/regions. In terms of future research, it would be useful if similar studies could be conducted in other countries/regions to see if our findings apply more widely.

A key implication that follows from our findings is that a "person-centered perspective on entrepreneurship", that focuses less on a firm owner's sex and more on their goals, "should be encouraged" (Eddleston and Powell 2008, pp. 245–246). From a theoretical perspective, the addition of mediators (such as growth goals, available internal resources, and the money and time invested in a new venture) to prediction models should help researchers and policy makers "better understand the complex motivations inherent in the process of starting and then growing a new venture" (Manolova et al. 2012, p. 23), and, more importantly, why some new ventures (typically a small minority) achieve rapid growth and others do not (Storey 2011). While not growing, or not wanting to grow, or being unable to grow is typically "constructed as a female problem", very few firm owners actually want to grow their businesses, irrespective of gender (Ahl 2006, p. 613).

In summary, the findings we present are generally consistent with our expectations based on a number of different theories found in the literature (for example: goal theory; the theory of planned behavior; and resource-based theory). It seems that individuals with lower levels of internal resources (in the form of human, financial, and social capital) will have lower growth expectations for their new ventures and will, therefore, invest less money and time in their ventures. As a consequence, they will grow more slowly than those ventures established by entrepreneurs with higher levels of available internal resources who have higher growth expectations and invest more money and time in their new

ventures. Further, our results support the argument advanced by Shaw et al. (2009, p. 36) that “differences in the personal and business goals of owners and their possession of and access to different amounts of entrepreneurial capital suggests a need to re-conceptualize indicators of firm performance.” Therefore, the theoretical implications flowing from this study indicate that, in examining gender differences in entrepreneurial outcomes, researchers should focus more on goals and goal achievement (for both male and female entrepreneurs), rather than focusing purely on financial outcomes (Watson and Newby 2005).

Finally, our findings suggest that government policies (for example, to stimulate firm growth) need to be designed having a proper understanding of the various motives/goals that entrepreneurs might have when launching a new venture. Similarly, anyone providing advice to individuals involved in establishing a new venture should, before providing that advice, ensure they have a clear understanding of the individual’s goals. Interestingly, focusing on goal achievement may help to explain recent research suggesting that women tend to be just as satisfied with their business outcomes as men, despite their apparent comparatively poorer financial performance outcomes ( Jennings and Brush 2013; Powell and Eddleston 2008; Weber and Geneste 2014).



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## Endnotes

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- <sup>i</sup> Ideally, we would like to use the amount of financial resources the owner(s) has available for this variable, however, this information was not available. We justify using the amount of financial resources provided to the new venture by non-owners on the basis that the external funding an owner is likely to be able to raise will, to a large extent, be dictated by their own financial resources.
- <sup>ii</sup> Note that explained variance is considered to provide “the best estimation of model fit in PLS analysis” (Wiklund et al. 2009, p. 362).
- <sup>iii</sup> The average path coefficient for the main relationships (excluding the control variables) is 0.22 ( $p < 0.001$ ); the average R-squared is 0.17 ( $p < 0.01$ ); the average adjusted R-squared is 0.16 ( $p < 0.01$ ); Tenenhaus’s GoF index is 0.41; and Simpson's paradox ratio is 0.85.