

To leave or not to leave? The role of psychological ownership, family support and hindrance-related stress in entrepreneurs' venture exit decisions

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ABSTRACT

We draw on psychological ownership literature, the social support perspective, and stress research to examine the impact of psychological ownership toward a venture, family support, and hindrance-related stress on entrepreneurs' venture exit decisions. Using an experimental study on 157 entrepreneurs through Amazon Mechanical Turk, we found that both family support and psychological ownership reduce hindrance-related stress, which is positively associated with the likelihood of venture exit. Furthermore, the effect of family support on the likelihood of venture exit is fully mediated by hindrance-related stress, whereas the effect of psychological ownership on the likelihood of venture exit is partially mediated by hindrance-related stress.

Key words: Entrepreneurial exit; psychological ownership; family support; hindrance-related stress, experiment.

INTRODUCTION

Many entrepreneurs eventually exit their ventures (DeTienne & Cardon, 2010) and venture exit decisions have substantial impact on entrepreneurs (Collewaert, 2011; DeTienne, Shepherd, & De Castro, 2008). Entrepreneurs who sell their ventures can re-invest the financial resources in another venturing opportunity, thereby continuing their entrepreneurial career; entrepreneurs who exit their ventures through liquidation may suffer from grief and psychological dysfunction and may delay entrepreneurial re-entry (Shepherd, 2003; Shepherd, Wiklund, & Haynie, 2009). Such significant impact of venture exit on entrepreneurs thus makes it important to understand why some entrepreneurs decide to exit their ventures whereas others choose to stay (DeTienne, 2010).

Entrepreneurial exit has been explained by a variety of economic factors (e.g., tax cuts, technological change) (Crifo & Sami, 2008; Gurley-Calvez & Bruce, 2008) and non-economic factors (e.g., human capital, psychological ownership) (DeTienne, 2010; Gimeno, Folta, Cooper, & Woo, 1997). A recent framework by DeTienne (2010) suggests four factors that predict entrepreneurial exit: alternative opportunities, the probability of achieving one's goal, psychological ownership, and expectations and advice from family and friends. As economic factors are insufficient to explain venture exit/persistence decisions (Gimeno et al., 1997; Karakaya, 2000; van Witteloostuijn, 1998) and entrepreneurship scholars have suggested for a long time the need for studying non-economic factors that affect venture exit decisions (DeTienne, 2010; Gimeno et al., 1997), our study builds on DeTienne's (2010) model and focuses on psychological ownership and family support as two non-economic factors. Nevertheless, we control for the effect

of the entrepreneur's alternative opportunities and the probability of goal achievement as two economic factors that may influence entrepreneurs' venture exit decisions.

We examine psychological ownership because it has been theorized as an important antecedent of entrepreneurs' venture exit decisions (DeTienne, 2010; DeTienne et al., 2008), yet little empirical evidence has been found for this relationship. We focus on family support as previous organizational and entrepreneurship research has predominantly employed the work-family conflict perspective to explain individuals' decisions and behavior (Carlson, Kacmar, Wayne, & Grzywacz, 2006; Kahn, Wolfe, Quinn, & Snoek, 1964; Shaffer, Harrison, Gilley, & Luk, 2001), leaving the other aspect of work-family interactions—family support—an important yet understudied perspective (Adams, King, & King, 1996a). Given that family support is an important factor influencing work-related outcomes (Baruch-Feldman & Schwartz, 2002; Orthner & Pittman, 1986; Wayne, Randel, & Stevens, 2006), it is worthwhile to explore how family support can influence entrepreneurs' business decisions such as venture exit decisions.

To fill in the above-mentioned gaps, the present research examines how psychological ownership and family support influence entrepreneurs' venture exit decisions. Furthermore, as Maertz and Campion (2004) suggest that affective forces also drive individuals' intentions to quit, we added stress to DeTienne's (2010) model of venture exit to proximate the affective force as stress is likely to trigger negative emotions (Hobfoll, 1989). Specifically, we explore whether hindrance-related stress mediates the relationship between psychological ownership and the likelihood of venture exit and that between family support and the likelihood of venture exit. Hindrance-related stress derives from job demands that involve excessive constraints and that hinder the

achievement of one's goals (Cavanaugh, Boswell, Roehling, & Boudreau, 2000). Hindrance-related stress is relevant to the present research for two reasons. First, the entrepreneurial process especially the venture exit decision context could involve hindrance-related stressors such as limited resources, skills, and capabilities that threaten the survival of the venture and that prevents entrepreneurs from achieving their goals (Buttner, 1992). Second, hindrance-related stress is a type of job stress which has been found to increase employees' intentions to quit (Boswell, Olson-Buchanan, & LePine, 2004; Cavanaugh et al., 2000; Fisher, 1985). In the entrepreneurship context, venture exit could be conceptualized as quitting. Therefore, we expect that hindrance-stress that matters to quitting in the organizational context also matters to venture exit in the entrepreneurship context.

To disentangle the relationships among psychological ownership, family support, hindrance-related stress, and entrepreneurs' venture exit decisions, we conducted an experiment with 157 entrepreneurs on Amazon Mechanical Turk, an online platform for recruiting respondents for research. Because the proposed mediating models signal causal relationships (Shrout & Bolger, 2002), we feel that the experimental method suits itself well for investigating our research question as the nature of random assignment in experiments controls for other confounding factors and thus makes it feasible to examine the causal and mediating effects.

With this research we make three contributions. First, we empirically verify the theorized relationship between psychological ownership and entrepreneurs' venture exit decisions (DeTienne, 2010; Townsend, DeTienne, Yitshaki, & Arthurs, 2009). More interestingly, our finding of the mediating role of hindrance-related stress shows an

indirect relationship between psychological ownership and the likelihood of venture exit. This mediating effect of hindrance-related stress connects psychological ownership theory (Pierce, Kostova, & Dirks, 2001; Van Dyne & Pierce, 2004) to DeTienne's (2010) model of venture exit and thus contributes to both psychological ownership theory and the entrepreneurial exit literature.

Second, entrepreneurship research on work-family interactions has mainly drawn on the work-family conflict perspective to explain entrepreneurs' decisions and behavior (Jennings & McDougald, 2007; Justo & DeTienne, 2008) and such research concludes that some family factors (e.g., marital status) interfere with entrepreneurs' venture growth and exit decisions. In the present research, we complement this line of research by employing the social support perspective to demonstrate that family support is a family-domain factor that has positive influence on entrepreneurs' business decisions. Family support thus is an important factor to consider when examining entrepreneurs' work-family interactions.

Third, stress researchers have been calling for more research on the factors that could reduce job stress and minimize intentions to quit in the organizational context (Culbertson, Huffman, & Alden-Anderson, 2010; Monsen & Boss, 2009). Our study responds to this call by demonstrating entrepreneurs' psychological ownership toward the venture and family support as two factors that can alleviate a specific type of stress—hindrance-related stress—in the entrepreneurship context. In addition, we extend stress theory to entrepreneurship and complement previous studies on entrepreneurs' job stress (Harris, Saltstone, & Fraboni, 1999) by focusing on one specific type of stress (i.e. hindrance-related).

This paper proceeds as follows. We first review the entrepreneurial exit literature and hypothesize the relationships of psychological ownership, family support, and hindrance-related stress with entrepreneurs' venture exit decisions. We then describe our research methods, data analysis, and findings, which are followed by discussions of implications for theory and practice, limitations, and possibilities for future research.

THEORY AND HYPOTHESES DEVELOPMENT

Entrepreneurial exit is “the process by which the founders of privately held firms leave the firm they helped to create; thereby removing themselves, in varying degrees, from the primary ownership and decision-making structure of the firm (DeTienne, 2010: 204).” This definition emphasizes that entrepreneurs' venture exit decisions represent their departure from the venture both financially and psychologically (Collewaert, 2011). This perspective is different from research that emphasizes firm exiting industries or markets (Ilmakunnas & Topi, 1999; Karakaya, 2000; Mata, Portugal, & Guimarães, 1995). The present research adopts the former perspective.

Entrepreneurial exit has been found to be affected by both economic factors (e.g., firm growth, tax cuts, technological change) and non-economic factors (e.g., psychological ownership) (Boeker & Karichalil, 2002; Crifo & Sami, 2008; DeTienne, 2010; Gurley-Calvez & Bruce, 2008). One well cited framework for explaining entrepreneurs' venture exit decisions is Gimeno et al.'s (1997) threshold of performance model, which suggests that entrepreneurs' venture exit decisions are influenced by both venture economic performance and entrepreneurs' performance thresholds. Entrepreneurs would stay with their ventures as long as the venture performance is above the entrepreneur's performance threshold, which is influenced by entrepreneurs' human

capital. Gimeno et al.'s (1997) research also inspires subsequent research that attends to the non-economic factors influencing entrepreneurs' venture exit decisions. For example, Wennberg et al.'s (2010) research builds on prospect theory and suggests that human factors such as experience, age, and education substantially affect the entrepreneurial exit decision. Justo and DeTienne (2008) draw on the work-family conflict literature and found that married entrepreneurs are more likely to voluntarily leave their ventures compared with their unmarried counterparts. These findings are consistent with organizational research that finds family-work conflict gives rise to employees' intentions to quit (Burke, 1988).

Extending this line of research, DeTienne (2010) proposes that entrepreneurial exit is influenced not only by alternative opportunities and the perception of goal achievement, which could be broadly categorized as economic factors, but also by psychological ownership and family or friends' expectations and advice, which are non-economic factors. On the one hand, psychological ownership creates a psychological connection between the entrepreneur and the venture and makes entrepreneurs difficult to leave "their" ventures (DeTienne et al., 2008; Pierce et al., 2001). On the other, family or friends' expectations of and advice for the venture (i.e. normative force) may also lead entrepreneurs to stay with the venture (DeTienne, 2010). In this paper, we focus on family support to proximate DeTienne's (2010) normative force because family support includes informational support (e.g., advice) (House, 1981), thus may affect the entrepreneur's venture exit decision. This perspective on family support is also consistent with the social support literature which emphasizes family support as an important

resource assisting individuals in dealing with business issues and stress (Carlson & Perrewé, 1999; Thoits, 1995).

All in all, we aim to build on DeTienne's (2010) research to examine the impact of psychological ownership and family support on entrepreneurs' venture exit decisions while controlling for the effect of alternative opportunities and the probability of goal achievement. More importantly, we seek to extend DeTienne's (2010) research by proposing the potential mediating mechanism—hindrance-related stress—for the relationship between psychological ownership and venture exit and that between family support and venture exit. Our theoretical framework is presented in Figure 1.

Insert Figure 1 about here

Family support, hindrance-related Stress, and venture exit decisions

Family support is the form of social support that comes from family members. Family support consists of emotional support (e.g., trust, listening), instrumental support (e.g., support in money, labor, time), informational support (e.g., advice, suggestion), and appraisal support (e.g., appraisal, affirmation) (House, 1981). Family support provides entrepreneurs with the feeling that they are cared for, loved, esteemed and valued, and they are members of a social network of communication and mutual obligations (Cobb, 1976). Therefore, each type of family support could reduce the likelihood that an individual leaves his or her current job. For example, family members' instrumental support with household responsibilities and their emotional support can reduce family-work conflict (Hill, 2005; Lee, Kim, & Ling, 2001; van Daalen, Willemsen, & Sanders, 2006) and provide the cognitive resources that individuals could draw on to focus on the

work domain and deal with job demands (Thoits, 1995), thereby reducing individuals' intentions to quit (Adams, King, & King, 1996b). As for informational support, family members may be able to give work-related advice and help individuals develop skills, problem-solving ability, and confidence at work to deal with job demands (Bernasco, Graaf, & Ultee, 1998; Greenhaus & Powell, 2006; Grzywacz & Marks, 2000; Ruderman, Ohlott, Panzer, & King, 2002). Such support also creates the cognitive resources and reduces the intentions to quit. Indeed, the relationship between family support and the intentions to quit has been demonstrated in the organizational setting (Haar, 2004).

In the entrepreneurship context, entrepreneurs play many different roles, such as a salesperson and a product manager (Hoang & Gimeno, 2010), and lead their ventures through various entrepreneurial stages from fund raising to growth (McGee, Peterson, Mueller, & Sequeira, 2009). Therefore, entrepreneurs are likely to experience high demands in the entrepreneurial process. Family support thus is particularly important to entrepreneurs as it provides the time, resources and energy for them to focus on venture-related activities (Greenhaus & Powell, 2006; Wayne et al., 2006), thereby reducing the likelihood of venture exit. Accordingly,

Hypothesis 1: Family support is negatively related to the likelihood of venture exit.

We further expect that the relationship between family support and the likelihood of venture exit may be mediated by hindrance-related stress given the empirical support in organization studies that family support affects job stress which in turn is associated with employees' turnover intention (Burke, 1988; Jones, Chonko, Rangarajan, & Roberts, 2007; Kim & Stoner, 2008). In the entrepreneurship context, as family support can enhance individuals' experience of affect and behavior at work (Erickson, 1993) as well

as job satisfaction (King, Mattimore, King, & Adams, 1995), we expect that family support as a positive influence in the family domain (Wayne et al., 2006) enables entrepreneurs to view the daunting entrepreneurial process from a positive perspective, thereby perceiving less hindrance-related stress (Burke, 1988; Thoits, 1995). Because hindrance-related stress has been found to increase employee's turnover intention in organizational settings (Boswell et al., 2004; Cavanaugh et al., 2000; Fisher, 1985), we expect that decreased hindrance-related stress due to strong family support will in turn lead to reduced likelihood of venture exit.

Hypothesis 2: Hindrance-related stress mediates the relationship between family support and the likelihood of venture exit. The stronger the family support, the lower hindrance-related stress the entrepreneur perceives, resulting in a lower likelihood of venture exit.

Psychological ownership, hindrance-related stress, and venture exit decisions

Ownership can be both legal and psychological (DeTienne, 2010; Pierce, Rubinfeld, & Morgan, 1991). The notion of psychological ownership is developed based on Etzioni's (1991) argument that property ownership can be both real and psychological. Etzioni (1991) argues that "property exists on two levels: a formal, objective level and an informal, subjective level and so feelings of ownership are a dual creation, part attitude, part object, part in the mind, part real (p.465-466)." Based on this conceptualization, Pierce and colleagues (1991) propose an integrated model of employee ownership in the organizational setting. They conceptualized employee ownership into two forms: formal ownership and psychological ownership, with the latter defined as the state "in which individuals feel as though the target of ownership, or a piece of it, is 'theirs' (Pierce et al.,

2001: 299).” The core of psychological ownership is the feeling of possessiveness and of being psychologically tied to an object. Such possessive feelings make people evaluate a target more favorably than other things they do not own or can easily obtain (Van Dyne & Pierce, 2004).

Entrepreneurs are likely to develop psychological ownership for the venture they created and developed (DeTienne, 2010) because they have invested tremendous time, money, and energy in developing business ideas, forming venture values, goals, vision and culture, recruiting employees, acquiring customers, and building the organizational structure (Wasserman, 2008). During this process, entrepreneurs have also developed knowledge of how the venture operates and exerted control over the venture. As the investment of the self, the development of intimate knowledge of and control over an object are three routes to psychological ownership toward an object (Pierce et al., 2001; Van Dyne & Pierce, 2004), it is likely that entrepreneurs develop a sense of ownership toward the venture they helped to create. In organizational studies, psychological ownership is argued to promote commitment to an organization (Avey, Avolio, Crossley, & Luthans, 2009a; Bernhard & O'Driscoll, 2011; Pierce, Jussila, & Cummings, 2009; Van Dyne & Pierce, 2004) and the felt responsibility for taking care of and protecting the organization (Brown, Lawrence, & Robinson, 2005; Pierce et al., 2001; Wagner, Parker, & Christiansen, 2003), thereby having negative effect on employee's intention to quit (Avey et al., 2009a). When it comes to entrepreneurs who have strong ownership feelings for their ventures, we expect that these entrepreneurs will commit to their ventures, take full responsibility for them, and will not easily exit them.

In contrast, entrepreneurs with low psychological ownership for their ventures show weak commitment to their ventures (Van Dyne & Pierce, 2004). When more attractive personal options are available or when the venture is performing below their expectations, entrepreneurs with low ownership feelings thus are likely to choose to exit their ventures.

Hypothesis 3: Psychological ownership for a venture is negatively related to the likelihood of venture exit.

Entrepreneurs who regard a venture as “theirs” are likely to perceive strong control over their ventures and feel responsible for the survival and development of the venture (Liu, Wang, Hui, & Lee, 2012; Pierce et al., 2001), thereby being willing to invest both physically and psychologically in the venture to nourish it (Pierce, Kostova, & Dirks, 2003). Psychological ownership also has a sense of positivity and striving for success (Avey et al., 2009a), thereby becoming a positive psychological resource (Fredrickson, 2001) that could be used to deal with stress. Entrepreneurs’ ownership feelings for their ventures thus will motivate them to positively view the daunting venture development process as a learning experience, and enhance their knowledge and capabilities to deal with the hurdles during the venture development process (Avey et al., 2009a; Jamal, 2007). With perceived control of the venture, enhanced capabilities to deal with business issues and the possible positive performance resulted from the efforts to protect the venture (Avey et al., 2009a), entrepreneurs may perceive low hindrance-related stress and have a low intention to exit their ventures (Avey, Luthans, & Jensen, 2009b).

Hypothesis 4: Hindrance-related stress mediates the relationship between psychological ownership toward a venture and the likelihood of venture exit. The higher the psychological ownership an entrepreneur has for a venture, the lower

hindrance-related stress the entrepreneur perceives, resulting in a lower likelihood of venture exit.

METHODS

Sample

We employ our participants through Amazon Mechanical Turk (AMT), which is an online platform for recruiting subjects for research. Researchers put their tasks on AMT and may use some prescreening questions to select participants. Potential participants can see a brief description of the task and decide whether to complete the task. Participants can get paid, usually less than \$1 per participant for one task (Paolacci, Chandler, & Ipeirotis, 2010), and \$ 0.7 in our research. Although many participants get paid, researchers claim that participants complete AMT tasks not for the sake of earning money, but for spending extra time in a fruitful way (Paolacci et al., 2010). So far, AMT has been used in a number of psychology studies to recruit participants (Converse, Risen, & Carter, 2012; Forstmann, Burgmer, & Mussweiler, 2012) and has been shown to be at least as representative of the U.S. population as traditional subject pools (Paolacci et al., 2010).

To identify entrepreneurs on AMT, we selected the AMT workers who were self-employed and self-identified as an entrepreneur. We used two screening questions—“Are you currently owning a business?” and “Are you (one of) the key decision-maker(s) for that business?”—in the AMT recruitment announcement, which directed the qualified participants to the experiment website externally hosted on Qualtrics. We also made sure that respondents who failed the screening questions could not participate in our experiment because AMT marked the respondents’ worker ID (which cannot be linked to

their real identity) and Qualtrics marked their network IP addresses. To capture respondents' entrepreneur identity, we removed from our sample those respondents who indicated no entrepreneurial experience. Our sample included 178 AMT workers.

Procedure and research design

We tested our hypotheses by conducting a 2 (high psychological ownership vs. low psychological ownership) x 2 (high family support vs. low family support) between-subject design. Participants were randomly assigned to one of the four experimental treatments. During the experiment, participants were presented a situation, in which they were asked to imagine that they were a top decision-maker of an entrepreneurial venture. They were, then, given a scenario with information about their psychological ownership toward the venture and the degree of family support they had received. At the end of the scenario, participants were requested to make a decision about the extent to which they would like to exit the hypothetical venture. The experimental instructions and a sample scenario are presented in the appendix.

Measures

Dependent variable

The likelihood of venture exit. To measure the likelihood of venture exit, we adopted DeTienne et al.'s (2008) measure of persistence, which was an 11-point Likert scale, anchoring from 1 – “Definitely leave the venture” to 11 – “Definitely continue the venture”. We re-coded the data so that a high number on this measure indicates a strong intention to exit the venture.

Independent variables

Psychological ownership. Our manipulation of psychological ownership toward a venture consists of the three routes to psychological ownership suggested by Pierce et al. (2001). First, as the effect of formal ownership might confound that of psychological ownership toward the venture (Wagner et al., 2003), we controlled for the degree of participants' formal ownership of the venture by telling participants across all four conditions that they co-founded the venture with two former colleagues and possessed 33% of ownership. Second, as intimate knowledge of the venture gives rise to psychological ownership (Pierce et al., 2001), we told the high psychological ownership group that they had comprehensive knowledge about the processes in the firm. In contrast, the low psychological ownership group was informed that they lacked comprehensive knowledge about all processes in the firm but were only familiar with some processes in some functional domains. Finally, as psychological ownership is influenced by personal investment of energy, time, effort, and attention to the firm (Pierce et al., 2001; Wagner et al., 2003), a low level of personal investment was operationalized as *You have invested three months of earning potential and some time and energy in this venture*, whereas a high level of personal investment was described as *You have invested 24 months of earning potential and a lot of time and energy in this venture*.

Family support. Our manipulation of family support is based on King et al.'s (1995) family support inventory for workers. According to King and colleagues, social support consists of emotional sustenance and instrumental assistance. Emotional sustenance includes family member behaviors or attitudes geared toward providing the entrepreneur with encouragement, understanding, attention and positive regards, as well as guidance in problem-solving. In contrast, instrumental assistance encompasses those family member

behaviors and attitudes aimed at facilitating day-to-day family/household operations. Based on the items of their scale, we created two experimental scenarios—one with low and the other with high family support. Participants in the high-family-support condition were told that they had gotten substantial emotional and instrumental assistance from their family, whereas participants in the low-family-support condition got the information indicating that they did not get great support from their family.

Hindrance-related stress. Hindrance-related stress was measured by asking participants the degree to which they perceived being in the described scenario as hindering for achieving their goals. This question anchors from 1 – strongly disagree to 7 – strongly agree.

Control variables

Human capital. As human capital has been found to affect entrepreneurs' venture exit decisions (Gimeno et al., 1997), we controlled for the effect of human capital, which consists of general human capital and specific human capital. We used age and the level of education to measure general human capital and entrepreneurial experience to measure specific human capital. Age was a continuous variable. The level of education was measured by a binary variable, with 0 indicating no university degree and 1 indicating university and a higher degree. Entrepreneurial experience was measured by participants' years of experience as an entrepreneur. Because age and entrepreneurial experience are not normally distributed, we log transformed and standardized these two variables.

Gender and marital status. Because gender and marital status affect entrepreneurs' venture exit decisions (Justo & DeTienne, 2008), we also controlled for the effects of these two variables. Gender was measured as a binary variable with 1 indicating female.

Marital status was measured as a binary variable, with 1 indicating married or having a partner and 0 representing single or other marital status.

As entrepreneurs' venture exit decisions are also suggested to be affected by alternative opportunities and the perception of goal achievement (DeTienne, 2010), we also manipulated alternative opportunities that participants might have as well as the growth potential of the venture at the same level across the four treatments to control for their effects on participants' venture exit decisions. We manipulated alternative opportunities by telling participants "You have several other options available for yourself outside Company X that have attractive earning potential (e.g., a full-time job offer, new venture opportunity etc.)". We used venture growth potential as a proxy for the perception of goal achievement because we expected participants to perceive a high likelihood of goal achievement (success) when their ventures had growth potential. To control for the perception of goal achievement, we told participants "the company has potential for growth" in the experimental instrument.

Manipulation Checks

To check our manipulation of psychological ownership, we asked participants to indicate their degree of agreement (1 – I don't agree at all to 7 – I totally agree) with the following description of the hypothetical venture: "I feel the venture is mine". To check the effectiveness of our manipulation of family support, we asked participants to indicate the extent to which they agreed with the following statement: "I feel my family described in the scenario supports me working in Company X." Responses were made on a 7-point Likert-type scale that ranged from 1 – I don't agree at all to 7 – I totally agree.

ANALYSES AND RESULTS

Before testing our hypotheses, we removed participants who failed our manipulation check questions. These include participants assigned to a high psychological ownership/family support condition but giving a score below 3 to the manipulation check questions and participants assigned to a low psychological ownership/family support condition but giving a score above 5 to the manipulation check questions. We also identified and removed one outlier due to its significantly high Cook's D statistic and externally studentized residual (Cohen et al., 2003). The final sample thus consists of 157 respondents. We calculated VIFs and concluded that our data is unlikely to suffer from the multicollinearity issue because all VIFs are less than 3.158, which is substantially below the rule of thumb value of 10.

Table 1 reports the descriptive statistics of our participants and zero-order correlations. Fifty-three percent of our participants are male. The mean age of participants is 38, with a median of 35. Sixty-six percent of participants have a university and a higher degree. The mean entrepreneurial experience of our participants is about 7 years.

Insert Table 1 about here

To examine the effectiveness of our manipulations of psychological ownership and family support, we performed the mean comparison of psychological ownership and family support between the high and the low treatment conditions. The result (Table 2) indicates that the levels of psychological ownership of respondents in the high psychological ownership condition were distinct from those in the low psychological ownership condition ($t=6.972, p<.001$). The levels of perceived family support of

respondents in the high family support condition were also significantly different from those in the low family support condition ($t=-28.505, p<.001$).

Insert Table 2 about here

To test our hypotheses, we followed Baron and Kenny's (1986) three-step procedure to test the proposed effect of family support, psychological ownership and hindrance-related stress on venture exit. As is suggested by Baron and Kenny (1986), the mediating effect exists when three criteria are met: (a) the predictor is related to the mediator, (b) the mediator is related to the dependent variable, and (c) the effect of the predictor on the dependent variable is smaller when the mediator is included in the model than the effect of the predictor is in (a). As such, we first regressed the dependent variable (the likelihood of venture exit) on the predictors (psychological ownership and family support) and control variables in Model 1 of Tables 3 & 4, then the mediator (hindrance-related stress) on the predictors and control variables in Model 2 of Tables 3 & 4, and finally the dependent variable (the likelihood of venture exit) on the predictors, control variables and the mediator in Model 3 of Tables 3 & 4.

In hypothesis 1, we proposed that the degree of family support was negatively related to the likelihood of venture exit. This hypothesis is supported as the regression coefficient is significant and negative ($\beta=-1.653, p<.001$). In hypothesis 2, we proposed that the degree of family support was negatively related to the likelihood of venture exit through the effect of hindrance-related stress. We found that Baron and Kenny's (1986) three criteria were met. Family support was negatively associated with hindrance-related stress ($\beta=-1.825, p<.001$), which in turn, was positively related to the likelihood of venture exit ($\beta=.735, p<.001$) (Table 3). Sobel test was also significant, with 80% of the total effect

mediated by hindrance-related stress. Bootstrapping the indirect effect with 1,000 replications led to a significant regression coefficient, thereby confirming that hindrance-related stress fully mediated the relationship between family support and the likelihood of venture exit. Hypothesis 2 thus is supported.

Insert Table 3 about here

In hypothesis 3, we proposed that psychological ownership was negatively related to the likelihood of venture exit. We found a significant and negative relationship between psychological ownership and the likelihood of exiting a venture ($\beta=-3.697, p<.001$). Thus, hypothesis 3 is supported. In hypothesis 4, we proposed that hindrance-related stress mediates the relationship between psychological ownership and the likelihood of venture exit. We followed Baron and Kenny's (1986) three-step procedure, and the mediating model was supported (Table 4). To be specific, psychological ownership was negatively related to hindrance-related stress ($\beta=-.995, p<.001$), which was positively related to the likelihood of venture exit ($\beta=.505, p<.001$). Both the Sobel test as well as the regression coefficient generated by bootstrapping (1,000 replications) was also significant, with 13% of total effect mediated by hindrance-related stress. Thus hypothesis 4 is supported. Hindrance-related stress partially mediates the relationship between psychological ownership and the likelihood of venture exit.

Insert Table 4 about here

DISCUSSION

Venture exit decisions have both financial and psychological impact on entrepreneurs (DeTienne et al., 2008). The present research builds on and extends DeTienne's (2010) work to examine how psychological ownership and family support influence entrepreneurs' venture exit decisions through hindrance-related stress. We found that entrepreneurs' psychological ownership for their ventures and the degree of family support negatively impact the likelihood of venture exit and such relationships are mediated by hindrance-related stress. Our research has several implications for theory and practice.

Implications for Theory

Our finding about the negative impact of family support on entrepreneurs' hindrance-related stress and the likelihood of venture exit complements previous research that mainly draws upon the work-family conflict literature to explain entrepreneurs' venture-related decisions (Aldrich & Cliff, 2003; Jennings & McDougald, 2007; Justo & DeTienne, 2008). Work-family interactions consist of two aspects: work-family conflict as well as social support which includes family support. The work-family conflict perspective assumes that individuals have limited time and energy (Parasuraman & Greenhaus, 2002) and that the participation in the family role will constrain the cognitive resources that one spends in the work role, giving rise to work-family conflict and stress. In contrast, social support from family serves as an important resource that could reduce the negative consequences of job stressors and enhance individuals' well-being (Carlson & Perrewé, 1999; Thoits, 1995). The social support perspective is consistent with other perspectives such as work-family enrichment (Culbertson et al., 2010; Grzywacz &

Marks, 2000; Shockley & Singla, 2011) and work-family facilitation (Hill, 2005), which emphasize the positive influence in one domain on the other.

The present research draws on the important yet relatively understudied social support perspective to investigate the impact of family support on entrepreneurs' decisions. The negative relationship between family support and the likelihood of venture exit identified in the present research suggests family support an important source of energy and resource that enable entrepreneurs to focus on and persist with their ventures. Furthermore, our finding that hindrance-related stress perceived by entrepreneurs fully mediates the relationship between family support and the likelihood of venture exit provides an explanation that family support encourages entrepreneurs to stay with their ventures only through reducing the type of stress that hinders the achievement of their goals, but not the type of stress that offers challenges (Cavanaugh et al., 2000). Our explanation for this finding is that family support can assist entrepreneurs in perceiving fewer negative consequences of hindrance-related stressors, but cannot induce entrepreneurs' positive framing of challenge-related stressors and the feelings of fulfillment and achievement in the venture exit decision context.

Our manipulation of family support also has advantages over other measures of family domain variables. By using an experimental approach and manipulating family support in terms of instrumental and emotional support, we are able to capture the richness of family support, thereby effectively inducing entrepreneurs' perception that they get (do not get) family support. In contrast, previous research has used social demographic indicators (e.g., gender, marital status) to measure family conditions to reflect the degree of work-family conflict (Justo & DeTienne, 2008). The validity of such

measures, however, may be questioned because such measurement approach may not be aligned with the theory used. For example, being married may not mean the entrepreneur experiences family-to-work conflict.

Second, the negative relationship between psychological ownership and hindrance-related stress and the likelihood of venture exit not only provides empirical support for the theorized psychological ownership – venture exit relationship in prior research (DeTienne, 2010), but also adds to previous research by demonstrating the mediating role of hindrance-related stress in such relationship. This partial mediation suggests that there are other variables that could also mediate the psychological ownership – venture exit relationship. One of such mediating variables could be commitment to the venture as in the organizational setting psychological ownership for an organization has been found to give rise to organizational commitment (Avey et al., 2009a; Bernhard & O'Driscoll, 2011; Pierce et al., 2009; Van Dyne & Pierce, 2004), which in turn reduces employees' intentions to quit (Avey et al., 2009a). Future research thus could explore such potential mediators for the psychological ownership – venture exit relationship.

Third, by identifying the negative relationship between psychological ownership and hindrance-related stress and that between family support and hindrance-related stress, our research responds to the call to identify the factors that can reduce the feeling of stress (Boswell et al., 2004). Entrepreneurs experience a high level of job stress due to role ambiguity, role overload and role conflict (Buttner, 1992; Wincent & Ortqvist, 2006). Some aspects of the job stress hinder the achievement of entrepreneurs' goals and have negative impact on entrepreneurs' psychological functioning (Cavanaugh et al., 2000). To assist entrepreneurs to effectively deal with job stress, it is important to identify the

factors that could reduce job stress, especially hindrance-related job stress. Our research thus contributes to this line of research by identifying two such factors: psychological ownership and family support. Our finding that family support reduces hindrance-related stress is consistent with existing stress coping research which suggests social support to be an important coping resource to reduce stress (Carlson & Perrewé, 1999; Folkman & Moskowitz, 2004). More importantly, because entrepreneurs gain less social support from the work domain than non-entrepreneurs (Boyd & Gumpert, 1983; Tetrick, Slack, Da Silva, & Sinclair, 2000), family support appears to be a critical resource that entrepreneurs could draw on to deal with job stress. Our finding that psychological ownership reduces hindrance-related stress is consistent with previous theorizing that the loss of an ownership target could give rise to stress due to the feeling of loss of control and intimate knowing (Pierce et al., 2001).

Implications for Practice

Our research offers two implications for practice. First, as strong family support helps reduce entrepreneurs' hindrance-related stress and decrease the likelihood of venture exit, entrepreneurs are advised to be aware of the positive impact of family support on their performance in the business domain and maintain a good relationship with their family members so that they can gain extra cognitive resources that they can utilize to deal with business issues.

Second, entrepreneurs should be aware that psychological ownership is a strong motivation for them to stay with their ventures, and such ownership feelings functions by reducing entrepreneurs' perceived hindrance-related stress. When facing with hindrance-

related stress, entrepreneurs may think about the special meaning of their ventures so that the perception of hindrance-related stress could be alleviated.

Limitations and Future Research

Our research has several limitations that open up opportunities for future research. First, our measure of hindrance-related stress is not ideal. In organizational research, hindrance-related stress has been measured by asking participants questions about their perceptions of specific stressors, for example, the degree to which politics affects organizational decisions and the amount of red tape one needs to go through to get one's job done (Cavanaugh et al., 2000; Culbertson et al., 2010). Our one-item measure of hindrance-related stress, however, is unable to fully capture the richness of hindrance-related stress in the entrepreneurship context. Future research therefore could develop a better measure of hindrance-related stress that could specifically be applied to the entrepreneurship context and further our understanding of the role of this type of stress in various entrepreneurship phenomena.

Second, work-related stress could be categorized into hindrance-related stress, which derives from job demands that hinder the achievement of one's goal, and challenge-related stress, which involves stressors that create challenges and feelings of fulfillment and achievement (Cavanaugh et al., 2000). It appears that stress can either promote or demote an individual from continuing the current job, depending on which type of stress is triggered. In our research, we only focus on hindrance-related stress because of its relevance to the demanding characteristics of the entrepreneurial process and of the negative work-related outcomes (e.g., quitting) it can produce. Future research could further explore the role of challenge-related stress in entrepreneurs' venture exit decisions.

Because challenge-related stress can create the feeling of achievement, it is expected that challenge-related stress may motivate entrepreneurs to stay with their ventures.

Third, the negative relationship between psychological ownership and venture exit may be contingent on other factors, such as individuals' dispositional regulatory focus orientations (Higgins, 1997). A recent study (Avey et al., 2009a) on psychological ownership suggests that individuals with the same level of psychological ownership may think and behave differently. Some people may incur promotive thinking which leads to openness to change, whereas others may incur preventative thinking that results in conservation and unwillingness to change. Thus, future research that looks into the potential moderators for the psychological ownership—venture exit relationship is encouraged.

CONCLUSION

This research provides an alternative model to predict venture exit, thereby complementing previous research on entrepreneurial exit (Gimeno et al., 1997; Justo & DeTienne, 2008). Our findings inform us about the essential roles that psychological ownership, family support, and hindrance-related stress play in entrepreneurs' venture exit decisions. Psychological ownership and family support both serve as sources of cognitive resources that assist entrepreneurs to stay with their ventures through reduced hindrance-related stress.

REFERENCES

- Adams, G. A., King, L. A., & King, D. W. 1996a. Relationships of job and family involvement, family social support, and work-family conflict with job and life satisfaction. *Journal of Applied Psychology*, 81(4): 411-420.
- Adams, G. A., King, L. A., & King, D. W. 1996b. Relationships of job and family involvement, family social support, and work-family conflict with job and life satisfaction. *Journal of Applied Psychology*, 81(4): 411-420.
- Aldrich, H. E., & Cliff, J. E. 2003. The pervasive effects of family on entrepreneurship: Toward a family embeddedness perspective. *Journal of Business Venturing*, 18(5): 573-596.
- Avey, J. B., Avolio, B. J., Crossley, C. D., & Luthans, F. 2009a. Psychological ownership: Theoretical extensions, measurement and relation to work outcomes. *Journal of Organizational Behavior*, 30(2): 173-191.
- Avey, J. B., Luthans, F., & Jensen, S. M. 2009b. Psychological capital: A positive resource for combating employee stress and turnover. *Human Resource Management*, 48(5): 677-693.
- Baruch-Feldman, C., & Schwartz, J. 2002. Sources of social support and burnout, job satisfaction, and productivity. *Journal of Occupational Health Psychology*, 7(1): 84-93.
- Bernasco, W., Graaf, P. M. d., & Ultee, W. C. 1998. Coupled careers: Effects of spouse's resources on occupational attainment in the Netherlands. *European Sociological Review*, 14(1): 15-31.
- Bernhard, F., & O'Driscoll, M. P. 2011. Psychological ownership in small-family-owned businesses: Leadership style and nonfamily-employees' work attitudes and behaviors. *Group & Organization Management*, 36(3): 345-384.
- Boeker, W., & Karichalil, R. 2002. Entrepreneurial transitions: Factors influencing founder departure. *Academy of Management Journal*, 45(4): 818-826.
- Boswell, W. R., Olson-Buchanan, J. B., & LePine, M. 2004. Relations between stress and work outcomes: The role of felt challenge, job control, and psychological strain. *Journal of Vocational Behavior*, 64: 165-181.
- Boyd, D. P., & Gumpert, D. E. 1983. Coping with entrepreneurial stress. *Harvard Business Review*, 61(2): 44-52.
- Brown, G., Lawrence, T. B., & Robinson, S. L. 2005. Territoriality in organizations. *Academy of Management Review*, 30(3): 577-594.
- Burke, R. J. 1988. Some antecedents and consequences of work-family conflict. *Journal of Social Behavior and Personality*, 3(4): 287-302.
- Buttner, E. H. 1992. Entrepreneurial stress: Is it hazardous to your health? *Journal of Managerial Issues*, 4(2): 223-240.
- Carlson, D. S., Kacmar, K. M., Wayne, J. H., & Grzywacz, J. G. 2006. Measuring the positive side of the work-family interface: Development and validation of a work-family enrichment scale. *Journal of Vocational Behavior*, 68(1): 131-164.
- Carlson, D. S., & Perrewé, P. L. 1999. The role of social support in the stressor-strain relationship: An examination of work-family conflict. *Journal of Management*, 25(4): 513-540.
- Cavanaugh, M. A., Boswell, W. R., Roehling, M. V., & Boudreau, J. W. 2000. An empirical examination of self-reported work stress among U.S. managers. *Journal of Applied Psychology*, 85(1): 65-74.
- Cobb, S. 1976. Social support as a moderator of life stress. *Psychosomatic Medicine*, 38(5): 300-314.
- Collewaert, V. 2011. Angel investors' and entrepreneurs' intentions to exit their ventures: A conflict perspective. *Entrepreneurship Theory and Practice*, 36(4): 753-779.
- Converse, B. A., Risen, J. L., & Carter, T. J. 2012. Investing in Karma: When wanting promotes helping. *Psychological Science*, 23(8): 923-930.
- Crifo, P., & Sami, H. 2008. Entrepreneurship turnover and endogenous returns to ability. *Economic Modelling*, 25(4): 585-604.
- Culbertson, S. S., Huffman, A. H., & Alden-Anderson, R. 2010. Leader-member exchange and work-family interactions: The mediating role of self-reported challenge- and hindrance-related stress. *Journal of Psychology*, 144(1): 15-36.
- DeTienne, D., & Cardon, M. 2010. Impact of founder experience on exit intentions. *Small Business Economics*, Published online: 1-24.

- DeTienne, D. R. 2010. Entrepreneurial exit as a critical component of the entrepreneurial process: Theoretical development. *Journal of Business Venturing*, 25(2): 203-215.
- DeTienne, D. R., Shepherd, D. A., & De Castro, J. 2008. The fallacy of "only the strong survive": The effects of extrinsic motivation on the persistence decisions for under-performing firms. *Journal of Business Venturing*, 23(5): 528-546.
- Erickson, R. J. 1993. Reconceptualizing family work: The effect of emotion work on perceptions of marital quality. *Journal of Marriage and Family*, 55(4): 888-900.
- Etzioni, A. 1991. The socio-economics of property. *Journal of Social Behavior and Personality*, 6(6): 465-468.
- Fisher, C. D. 1985. Social support and adjustment to work: A longitudinal study. *Journal of Management*, 11(3): 39-53.
- Folkman, S., & Moskowitz, J. T. 2004. Coping: Pitfalls and Promise. *Annual Review of Psychology*, 55(1): 745-774.
- Forstmann, M., Burgmer, P., & Mussweiler, T. 2012. "The mind is willing, but the flesh is weak": The effects of mind-body dualism on health behavior. *Psychological Science*, Published online first.
- Fredrickson, B. L. 2001. The role of positive emotions in positive psychology: The broaden-and-build theory of positive emotions. *American Psychologist*, 56(3): 218-226.
- Gimeno, J., Folta, T. B., Cooper, A. C., & Woo, C. Y. 1997. Survival of the fittest? Entrepreneurial human capital and the persistence of underperforming firms. *Administrative Science Quarterly*, 42(4): 750-783.
- Greenhaus, J. H., & Powell, G. N. 2006. When work and family are allies: A theory of work-family enrichment. *The Academy of Management Review*, 31(1): 72-92.
- Grzywacz, J. G., & Marks, N. 2000. Reconceptualizing the work-family interface: An ecological perspective on the correlates of positive and negative spillover between work and family. *Journal of Occupational Health Psychology*, 5(1): 111-126.
- Gurley-Calvez, T., & Bruce, D. 2008. Do tax cuts promote entrepreneurial longevity? *National Tax Journal*, 61(2): 225-250.
- Haar, J. 2004. Work-family conflict and turnover intention: Exploring the moderation effects of perceived work-family support. *New Zealand Journal of Psychology*, 33(1): 35-39.
- Harris, J. A., Saltstone, R., & Fraboni, M. 1999. An evaluation of the job stress questionnaire with a sample of entrepreneurs. *Journal of Business and Psychology*, 13(3): 447-455.
- Higgins, E. T. 1997. Beyond pleasure and pain. *American Psychologist*, 52(12): 1280-1300.
- Hill, E. J. 2005. Work-family facilitation and conflict, working fathers and mothers, work-family stressors and support. *Journal of Family Issues*, 26(6): 793-819.
- Hoang, H., & Gimeno, J. 2010. Becoming a founder: How founder role identity affects entrepreneurial transitions and persistence in founding. *Journal of Business Venturing*, 25(1): 41-53.
- Hobfoll, S. E. 1989. Conservation of resources: A new attempt at conceptualizing stress. *American Psychologist*, 44(3): 513-524.
- House, J. S. 1981. *Work stress and social support*. Reading, MA: Addison-Wesley Publishing Company.
- Ilmakunnas, P., & Topi, J. 1999. Microeconomic and macroeconomic influences on entry and exit of firms. *Review of Industrial Organization*, 15(3): 283-301.
- Jamal, M. 2007. Burnout and self-employment: A cross-cultural empirical study. *Stress and Health*, 23: 249-256.
- Jennings, J. E., & McDougald, M. S. 2007. Work-family interface experiences and coping strategies: Implications for entrepreneurship research and practice. *Academy of Management Review*, 32(3): 747-760.
- Jones, E., Chonko, L., Rangarajan, D., & Roberts, J. 2007. The role of overload on job attitudes, turnover intentions, and salesperson performance. *Journal of Business Research*, 60(7): 663-671.
- Justo, R., & DeTienne, D. R. 2008. Family situation and the exit event: An extension of threshold theory. *Frontiers of Entrepreneurship Research*.
- Kahn, R. L., Wolfe, D. M., Quinn, R. P., & Snoek, J. D. 1964. *Organizational stress: Studies in role conflict and ambiguity*. New York: John Wiley & Sons, Inc.
- Karakaya, F. 2000. Market exit and barriers to exit: Theory and practice. *Psychology and Marketing*, 17(8): 651-668.
- Kim, H., & Stoner, M. 2008. Burnout and turnover intention among social workers: Effects of role stress, job autonomy and social support. *Administration in Social Work*, 32(3): 5-25.

- King, L. A., Mattimore, L. K., King, D. W., & Adams, G. A. 1995. Family Support Inventory for Workers: A new measure of perceived social support from family members. *Journal of Organizational Behavior*, 16(3): 235-258.
- Lee, J., Kim, S., & Ling, C. S. 2001. Work-family conflict of women entrepreneurs in Singapore. *Women in Management Review*, 16(5/6): 204-221.
- Liu, J., Wang, H., Hui, C., & Lee, C. 2012. Psychological ownership: How having control matters. *Journal of Management Studies*, 49(5): 869-895.
- Maertz, C. P., & Campion, M. A. 2004. Profiles in quitting: Integrating process and content turnover theory. *Academy of Management Journal*, 47(4): 566-582.
- Mata, J., Portugal, P., & Guimarães, P. 1995. The survival of new plants: Start-up conditions and post-entry evolution. *International Journal of Industrial Organization*, 13(4): 459-481.
- McGee, J. E., Peterson, M., Mueller, S. L., & Sequeira, J. M. 2009. Entrepreneurial Self - Efficacy: Refining the Measure. *Entrepreneurship Theory and Practice*, 33(4): 965-988.
- Monsen, E., & Boss, R. W. 2009. The impact of strategic entrepreneurship inside the organization: Examining job stress and employee retention. *Entrepreneurship Theory and Practice*, 33(1): 71-104.
- Orthner, D. K., & Pittman, J. F. 1986. Family contributions to work commitment. *Journal of Marriage and Family*, 48(3): 573-581.
- Paolacci, G., Chandler, J., & Ipeirotis, P. G. 2010. Running experiments on Amazon Mechanical Turk. *Judgment and Decision Making*, 5(5): 411-419.
- Parasuraman, S., & Greenhaus, J. H. 2002. Toward reducing some critical gaps in work-family research. *Human Resource Management Review*, 12(3): 299-312.
- Pierce, J. L., Jussila, I., & Cummings, A. 2009. Psychological ownership within the job design context: Revision of the job characteristics model. *Journal of Organizational Behavior*, 30: 477-496.
- Pierce, J. L., Kostova, T., & Dirks, K. T. 2001. Toward a theory of psychological ownership in organizations. *Academy of Management Review*, 26(2): 298-310.
- Pierce, J. L., Kostova, T., & Dirks, K. T. 2003. The state of psychological ownership: Integrating and extending a century of research. *Review of General Psychology*, 7(1): 84-107.
- Pierce, J. L., Rubenfeld, S. A., & Morgan, S. 1991. Employee ownership: A conceptual model of process and effects. *Academy of Management Review*, 16(1): 121-144.
- Ruderman, M. N., Ohlott, P. J., Panzer, K., & King, S. N. 2002. Benefits of multiple roles for managerial women. *Academy of Management Journal*, 45(2): 369-386.
- Shaffer, M. A., Harrison, D. A., Gilley, K. M., & Luk, D. M. 2001. Struggling for balance amid turbulence on international assignments: Work-family conflict, support and commitment. *Journal of Management*, 27(1): 99-121.
- Shepherd, D. A. 2003. Learning from business failure: Propositions of grief recovery for the self-employed. *Academy of Management Review*, 28(2): 318-328.
- Shepherd, D. A., Wiklund, J., & Haynie, J. M. 2009. Moving forward: Balancing the financial and emotional costs of business failure. *Journal of Business Venturing*, 24(2): 134-148.
- Shockley, K. M., & Singla, N. 2011. Reconsidering work-family interactions and satisfaction: A meta-analysis. *Journal of Management*, 37(3): 861-886.
- Tetrick, L. E., Slack, K. J., Da Silva, N., & Sinclair, R. R. 2000. A comparison of the stress-strain process for business owners and nonowners: Differences in job demands, emotional exhaustion, satisfaction, and social support. *Journal of Occupational Health Psychology*, 5(4): 464-476.
- Thoits, P. A. 1995. Stress, coping, and social support processes: Where are we? What next? *Journal of Health and Social Behavior*, 35(Extra issue: Forty years of medical sociology: The state of the art and directions for the future): 53-79.
- Townsend, D. M., DeTienne, D. R., Yitshaki, R., & Arthurs, J. D. 2009. The psychological ownership of entrepreneurial organizations: Theoretical and model development. *Frontiers of Entrepreneurship Research*.
- van Daalen, G., Willemsen, T. M., & Sanders, K. 2006. Reducing work-family conflict through different sources of social support. *Journal of Vocational Behavior*, 69(3): 462-476.
- Van Dyne, L., & Pierce, J. L. 2004. Psychological ownership and feelings of possession: Three field studies predicting employee attitudes and organizational citizenship behavior. *Journal of Organizational Behavior*, 25(4): 439-459.

- van Witteloostuijn, A. 1998. Bridging behavioral and economic theories of decline: Organizational inertia, strategic competition, and chronic failure. *Management Science*, 44(4): 501-519.
- Wagner, S. H., Parker, C. P., & Christiansen, N. D. 2003. Employees that think and act like owners: Effects of ownership beliefs and behaviors on organizational effectiveness. *Personnel Psychology*, 56(4): 847-871.
- Wayne, J. H., Randel, A. E., & Stevens, J. 2006. The role of identity and work–family support in work–family enrichment and its work-related consequences. *Journal of Vocational Behavior*, 69(3): 445-461.
- Wennberg, K., Wiklund, J., DeTienne, D. R., & Cardon, M. S. 2010. Reconceptualizing entrepreneurial exit: Divergent exit routes and their drivers. *Journal of Business Venturing*, 25(4): 361-375.
- Wincent, J., & Ortqvist, D. 2006. Analyzing the structure of entrepreneur role stress. *Journal of Business and Entrepreneurship*, 18(2): 1-21.

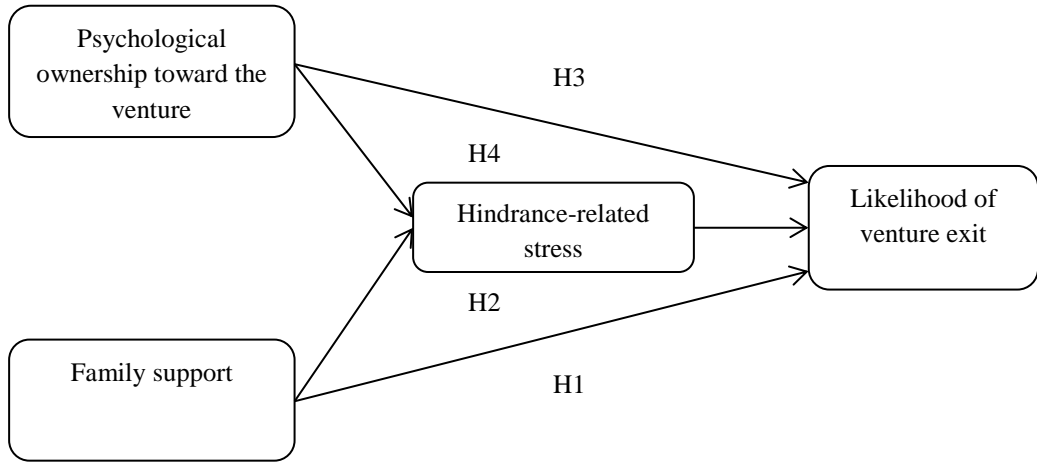


Figure 1. Theoretical framework

Table 1. Descriptive statistics

	Mean	Std. Deviation	Min.	Max.	1	2	3	4	5	6	7	8
1.Exit	4.84	2.72	1	11								
2.Family support	.55	.50	0	1	-.324**							
3.Psychological ownership	.51	.50	0	1	-.686**	.043						
4.Hindrance-related stress	4.09	1.67	1	7	.497**	-.544**	-.291**					
5.Age	37.44	11.42	19	74	-.058	.021	.046	-.014				
6.Education level	0.48	.50	0	1	.055	-.066	-.082	.033	-.055			
7.Entrepreneurial experience	6.88	6.99	1	40	-.030	-.080	.069	.100	.443**	.007		
8.Gender	.47	.50	0	1	.002	.026	.135	-.043	.062	-.137	-.005	
9.Marital status	.61	.49	0	1	-.012	.009	-.011	.067	.065	-.088	.032	-.099

N=157

**Correlation is significant at the .01 level.

The table reports the correlations of the non-standardized variables of age and experience.

Table 2. Mean Comparison of Psychological Ownership and Family Support

Variables	N	Mean	Std. Deviation	t-test for equality of means
<i>Psychological ownership</i>				
High psychological ownership	80	5.95	.855	-14.054***
Low psychological ownership	77	3.43	1.332	
<i>Family support</i>				
Strong family support	87	6.13	.925	-29.616***
Weak family support	70	1.70	.938	

***p < .001

Table 3. Regression model of family support, hindrance-related stress, and venture exit

	<i>Dependent Variable</i>			
	Model 0 <i>Exit</i>	Model 1 <i>Exit</i>	Model 2 <i>Stress</i>	Model 3 <i>Exit</i>
<i>Age</i>	0.09 (0.11)	0.05 (0.11)	-0.02 (0.06)	0.06 (0.10)
<i>Experience</i>	-0.13 (0.22)	-0.20 (0.21)	0.05 (0.12)	-0.24 (0.20)
<i>Education</i>	0.31 (0.45)	0.22 (0.43)	0.00 (0.23)	0.22 (0.39)
<i>Gender</i>	0.15 (0.45)	0.18 (0.43)	-0.06 (0.23)	0.23 (0.40)
<i>Marital status</i>	-0.10 (0.47)	-0.03 (0.44)	0.25 (0.24)	-0.21 (0.41)
<i>Family support</i>		-1.65*** (0.43)	-1.82*** (0.23)	-0.31 (0.47)
<i>Stress</i>				0.74*** (0.14)
R ²	0.01	0.10	0.30	0.24
F statistic	0.31	2.78**	10.83***	6.83***
Bootstrapping results (1,000 replications)				
Indirect effect				-1.31 (0.30)***
Direct effect				-0.33 (0.50)
Proportion of total effect mediated				0.80

N= 157. Standard errors were reported in brackets.

** Coefficient is significant at .05

*** Coefficient is significant at .01

Table 4. Regression models of psychological ownership, hindrance-related stress, and venture exit

	<i>Dependent Variable</i>			
	Model 0 <i>Exit</i>	Model 1 <i>Exit</i>	Model 2 <i>Stress</i>	Model 3 <i>Exit</i>
<i>Age</i>	0.09 (0.11)	0.05 (0.09)	0.02 (0.07)	0.05 (0.08)
<i>Experience</i>	-0.13 (0.22)	0.03 (0.16)	0.17 (0.13)	-0.05 (0.15)
<i>Education</i>	0.31 (0.45)	0.06 (0.33)	0.03 (0.26)	0.04 (0.30)
<i>Gender</i>	0.15 (0.45)	0.65* (0.34)	0.04 (0.27)	0.63 (0.31)
<i>Marital status</i>	-0.10 (0.47)	-0.11 (0.34)	0.17 (0.27)	-0.20 (0.32)
<i>PO</i>		-3.70*** (0.33)	-0.99 *** (0.26)	-3.20*** (0.32)
<i>Stress</i>				0.50*** (0.09)
R ²	0.01	0.46	0.10	0.55
F statistic	0.31	21.4***	2.78**	25.81***
Bootstrapping results (1,000 replications)				
Indirect effect				-0.48 (0.16)***
Direct effect				-3.13 (0.32)***
Proportion of total effect mediated				0.13

N=157. Standard errors were reported in brackets.

* Coefficient is significant at .1

** Coefficient is significant at .05

*** Coefficient is significant at .001

Appendix: Instruction and sample scenario

Thanks for participating in our study in which we investigate entrepreneurs' decision making behavior. Please read the descriptions carefully before you answer our questions. There are no right or wrong answers. We are interested in your decision. All answers will be treated confidentially and processed on an aggregated level.

Scenario description I (High PO & high stress)

Imagine the following situation. You are a top decision-maker of Company X with 20 employees. The company has potential for growth.

One year ago, you co-founded Company X with two former colleagues and possess 33% of ownership. From the start of the company, you have invested in total **six months of earning potential** that you would have received in a full-time wage job according to your qualification. Moreover, you have invested the complete **100% of your full-time work effort** in Company X for the past year.

Since you **strongly identify** yourself with Company X, you **know all the processes** going on in the company such as how the IT works and what the company's exact financial situation is. You also know all your employees very well. This **comprehensive knowledge** of the processes within the company, gives you a feeling of **being in control** of the company.

Unfortunately, your family does not support your work in Company X. Members of your family are not interested in Company X, and you cannot discuss company-related problems with them. Also, your family does not like hearing about your achievements in the company. When something in the company is frustrating or boring you, members of your family do not understand your feelings. With respect to practical issues, your family does not support you, e.g. by running errands when necessary or taking over some of your household responsibilities when your company gets very demanding.

You have several other options available for yourself outside Company X that have attractive earning potential (e.g., a full-time job offer, new venture opportunity etc.).

Based upon the above description, what would be your decision regarding the future of Company X?

(1) Definitely leave Company X

(11) Definitely remain in Company X