



Management

## **EFFECTS OF PSYCHOLOGICAL OWNERSHIP MANAGER ON JOB SATISFACTION AND ENTERPRENEUR BEHAVIOR**

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### **Abstract**

Managerial entrepreneurial behavior is very important for corporate entrepreneurship, and there is still little research on antecedents and its determinants. Knowledge of the role of psychological conditions and individual work attitudes is still very little. Through empirical investigations on 120 managers in a manufacturing company in Indonesia, this study found that psychological ownership was positively related to entrepreneurial behavior and job satisfaction to managers. Further research found that job satisfaction is positively related to entrepreneurial behavior and mediates the relationship between psychological ownership and entrepreneurial behavior. This study contributes to the literature by showing the relationship between psychological ownership and pro-organizational behavior, extending psychological ownership research to the field of corporate entrepreneurship through managerial entrepreneurial behavior.

**Keywords:** Psychological Ownership; Job Satisfaction; Entrepreneurial Behavior.

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### **1. Introduction**

Entrepreneurial characteristics at various levels of the organization are debated (Kuratko, 2010; Naffziger, et al. 1994) towards humans in corporate entrepreneurship (Sieger, et al., 2013). There is broad consensus about internal organizations that support the emergence of entrepreneurial behavior (Hornsby, et al., 2002; Kuratko & Hornsby, 1999; Kuratko, et al., 2005). However, although organizational characteristics are certainly important, they do not adequately explain why and when a person can choose to behave entrepreneurship. Research on factors at the individual level is still not possible when compared to several studies focusing on attributes such as dispositional characteristics, demographic characteristics, values, and attitudes (Heinonen & Toivonen, 2008; Holt, Rutherford, & Clohessy, 2007; Kuratko & Goldsby, 2004); but, cumulatively, these studies only provide a little explanation of the psychological processes that affect the entrepreneurial behavior of a manager's company.

Psychological ownership, which is a condition in which individuals feel as if the object of ownership is partly in the organization community (Pierce, et al., 2003), which has the potential to influence entrepreneurial behavior in the organization. However, although there is a lot of literature that examines the role of psychological ownership in organizations (Avey, et al., 2009; Pierce, et al., 2009), research has not examined the implications for entrepreneurial behavior of companies. This is very interesting because previous research on organizational behavior, innovation, and creativity as important factors as psychological ownership in terms of whether employees decide for entrepreneurship to occur (Avey et al., 2009; Van Dyne & Pierce, 2004).

Managers are considered as important entrepreneurial agents in companies (Hornsby et al., 2002; Kuratko, Ireland, et al., 2005). This is because managers work at the interface between employees at various levels, and therefore play an important strategic role in translating top management's vision into actions in the organization (Canales, 2013; Ireland, et al., 2009). Thus, entrepreneurial behavior of managers requires a dual focus because such behavior consists of their own entrepreneurial actions, such as risk taking, creativity, and seeking opportunities, and leadership responsibility to create an atmosphere that motivates subordinates to also behave entrepreneurship (Hornsby et al., 2002; Kuratko, 2010; Leitch, et al., 2013).

Recent research shows that entrepreneurial behavior may indeed depend on psychological factors and job design, with more calls to examine this relationship (RA Baron, 2010; Belousova & Gailly, 2013; Ramos, et al., 2014; Rigtering & Weitzel, 2013; Sieger et al., 2013). A sense of ownership of the organization on the part of employees can lead to a variety of pro-organizational behaviors, such as organizational citizenship behavior, affective commitment (Avey et al., 2009; Van Dyne & Pierce, 2004), and senior management (and owner) entrepreneurial behavior in family companies (Sieger et al., 2013). Psychological ownership can also harmonize individual entrepreneurial behavior with entrepreneurial behavior of senior owners or managers (Sieger et al., 2013).

In addition to data about psychological ownership, there is also evidence that job satisfaction can influence the likelihood of managers conducting entrepreneurial behavior (Kuswandi et al., 2015; Kuratko, et al., 2005; Van Wyk & Adonisi, 2012) and that psychological ownership can act as a mediator in the possibility of a manager doing innovative behavior (Bysted, 2013). Given that psychological ownership can also increase job satisfaction in organizations (Avey et al., 2009), there is a possible causal relationship between psychological ownership, job satisfaction, and corporate entrepreneurial behavior from middle managers.

Focusing on this construct, this study argues that (1) psychological ownership affects whether managers decide to carry out entrepreneurial behavior in their organizations, (2) job satisfaction managers have a direct effect on their entrepreneurial behavior, and (3) job satisfaction will mediate the relationship between psychological ownership and entrepreneurial behavior. Based on research involving 120 managers in a national manufacturing company, this study made two contributions. First, this study contributes to the broader psychological ownership literature by broadening understanding in the context of middle manager entrepreneurial behavior (Avey et al., 2009; Liu, et al., 2012). Second, this study contributes to the literature on entrepreneurial behavior and corporate entrepreneurship by empirically examining whether psychological ownership and Job satisfaction is an important driver of the behavior of the middle manager. This study makes

the proposition that the effect of psychological ownership on entrepreneurial behavior of middle managers is mediated by job satisfaction in addition to showing a direct effect on entrepreneurial behavior. Closing The lack of cumulative knowledge about antecedents of entrepreneurial behavior of managers at the individual level is a considerable and problematic gap.

## **2. Theory and Hypothesis Development**

### **2.1. Psychological Ownership and Managerial Entrepreneurial Behavior**

Managers who have strong psychological ownership of their organizations are more likely to develop feelings of attachment and belonging to them (Beggan, 1992). When an organization is an integral part of a manager's sense of identity, they are not only more likely to feel positive about their current work in the organization, they also tend to think and act by remembering organizational goals, thereby "personifying the organization" (Organ, 1988). Therefore, this means that their perceptions of the roles they perform will expand, making them more likely to step beyond the boundaries set by their actual roles. Related research regarding member leader exchange and job satisfaction supports this thesis (Loi, Chan, & Lam, 2014).

This means that ownership can motivate managers to carry out entrepreneurial behavior through several mechanisms. First, they can create a feeling of personal responsibility for their company, which can lead to the adoption of a more caring and protective attitude that results in greater willingness to maintain the company so that it can prosper. This can lead to increased investment of time and energy, a willingness to take greater personal risk (Pierce et al., 2001), to promote change, and to enhance new and unique ideas for the betterment of the organization. This expectation is based on citizenship behavior that inspires psychological ownership. For example, Smith, et al. (1983) state that employee involvement in innovative and spontaneous activities outside the scope of the provisions of their formal role characterizes organizational citizenship behavior (see: also Katz, 1964; Konovsky & Pugh, 1994), and that sense of citizenship increases when individuals feel a sense of belonging to the organization they serve.

These feelings are able to cause managers to feel more supportive of their subordinates' entrepreneurial behavior and actions, which is a successful requirement for entrepreneurial behavior (Kuratko, 2010), because of the increased psychological ownership of personal responsibility slowly embedded. Thus, entrepreneurial behavior can be considered a legitimate tool where managers can express their concern and concern to ensure the growth and survival of the organization (Hornsby et al., 2002; Kuratko, Ireland, et al., 2005).

Second, ownership can motivate managerial entrepreneurial behavior through its effect on feelings of empowerment, where empowered individuals believe they are autonomous and have an impact on company actions, decisions, and performance (Van Dyne & Pierce, 2004). A consistent set of studies shows that individuals who feel empowered are more likely to be creative, innovative, and engage in entrepreneurial behavior (Amabile, 1988; Bhatnagar, 2012; Valsania, et al., 2014). Given that empowerment is related to creativity, innovation and change, this study makes propositions that psychological ownership will also positively relate to entrepreneurial behavior of managers, thus increasing the discovery and exploitation of their innovative ideas and opportunities in the company (Kuratko, 2010; KG Smith & DiGregorio, 2002).

Finally, feelings of belonging can influence managerial entrepreneurial behavior by increasing sense of control. Sense of control over the environment is one of the core principles of the theory of self-efficacy from entrepreneurial behavior (Bandura, 1994). In this theory, the greater the control that a person feels for their ability to determine their environment, the more likely they are to engage in entrepreneurial activity. According to Pierce et al. (2003), individuals have innate needs for success and try to produce the desired outcome by exploring and manipulating their environment. Given that individuals with a high sense of belonging also tend to feel they have control over their actions and organizational actions (Pierce et al., 2003), greater psychological ownership will reduce one of the main obstacles to entrepreneurial behavior, namely a feeling of lack of control over the environment (Bandura, 1994). These feelings can eventually manifest themselves in the form of self-initiated behavior, such as helpful work attitudes (Spreitzer, 1995) and the tendency to take initiative and move forward with new ideas (Crant, 2000), which not only adds value to the company but also meets the individual's need for control and can strengthen their feelings of efficacy (Pierce et al., 2001; Zhao, Hills, & Seibert, 2005). Based on this argument, we hypothesize that managers who have a sense of belonging are more likely to achieve organizational goals by showing entrepreneurial behavior. Thus in line with the reasons above, the following hypothesis is proposed:

Hypothesis 1: Psychological ownership has a significant effect on individual entrepreneurial behavior.

## **2.2. Psychological Ownership and Manager Job Satisfaction**

The position of managers in organizations gives them unique knowledge and considerable influence and control over their own work and the work of others. Thus, the feeling of psychological ownership can help managers feel inherent in their role in the organization and become more likely to perceive a degree of ownership of what they do and where they work. Previous research has shown that ownership has a favorable evaluation of their ownership (Beggan, 1992) and evaluates owned objects more favorably (Pierce et al., 2003; Van Dyne & Pierce, 2004). When managers develop these possessive tendencies towards their organizations, they tend to experience higher levels of general satisfaction, which in turn affects their job satisfaction (Brown et al., 2013). Thus in line with the reasons above, the following hypothesis is proposed:

Hypothesis 2: Psychological ownership managers has significant on job satisfaction.

## **2.3. Job Satisfaction and Managerial Entrepreneurial Behavior**

Job satisfaction is usually regarded as an outcome of the main attitude in psychology and organizational research (Chen, et al., 2011). In a broad sense, job satisfaction can be conceptualized as a set of beliefs (cognitions) and feelings (affections) of individuals about one's work in general (Locke, 1976) or certain aspects of one's work and work environment. Many studies predict a positive relationship between job satisfaction and individual performance (Judge, et al., 2001) and various cooperative and discretionary behaviors by organizational members, such as organizational citizenship behavior (Fassina, et al., 2008; Organ & Ryan, 1995) or innovative

work behavior (Niu, 2014). Many of the reasons behind this relationship lie in the idea that satisfied employees will do their jobs more effectively (Batt, 2002; Crede, et al., 2007).

Hackman and Oldham (1976) emphasize that the psychological or intrinsic aspects of one's work are associated with higher levels of satisfaction and intrinsic motivation because of intrinsic investment in tasks. Entrepreneurial behavior requires continuous effort, challenging goals, persuasion, influence, interpersonal collaboration, and commitment to the organization (Kuratko, 2010). This is more likely to occur when employees are very satisfied with their work (Kuratko, et al., 2005; Lee, Wong, Foo, & Leung, 2009).

Recently, a small number of studies have shown a relationship between job satisfaction and entrepreneurial behavior. For example, De Clercq, Castaner, and Belausteguigoitia (2011) show that manager satisfaction with their organization can increase their entrepreneurial selling initiatives, while Antoncic and Antoncic (2011) and Kuratko, Hornsby, et al. (2005) show that employee satisfaction can have a significant effect on the development of entrepreneurial activities at the company level or the production of individual ideas.

In line with existing theoretical considerations, we argue that manager job satisfaction will be an important attitude at the individual level that will help create internal entrepreneurship (Akehurst, et al., 2009). If managers are very satisfied with their work, they will be intrinsically more motivated to do "organizational spontaneity" in the form of idea production, creativity, and risk taking in order to improve organizational functions (George & Brief, 1992). Furthermore, managers who are satisfied with their work are also more likely to have the passion needed to create collective synergies by encouraging entrepreneurial activities of their subordinates or fellow colleagues (Akehurst et al., 2009; Antoncic & Antoncic, 2011). In line with the above reasons, we propose the following hypothesis:

Hypothesis 3: Manager job satisfaction is positively related to their entrepreneurial behavior.

#### **2.4. The Role of Manager Job Satisfaction as a Mediator in the Relationship between Psychological Ownership and Entrepreneurial Behavior**

The hypothesis developed so far shows the possibility of a direct relationship between psychological ownership and entrepreneurial behavior. However, considering we also make a proposition that there might be a relationship between psychological ownership and job satisfaction, and the relationship between job satisfaction and entrepreneurial behavior, it is necessary to examine whether job satisfaction mediates the relationship between psychological ownership and entrepreneurial behavior. In other words, we need to identify whether feelings of psychological ownership have a direct or indirect effect on entrepreneurial behavior.

It is known that, for example, the relationship between satisfaction and performance is stronger for complex work (Kuratko, et al., 2005), so there is a possibility that manager job satisfaction mediates the relationship between psychological ownership and their entrepreneurial behavior. Antoncic and Antoncic (2011) show that each employee's job satisfaction is very important to maintain business (and economy) and is the basis of business performance. Satisfied managers are more likely to be committed to team efforts and less likely to quit their jobs. In addition, these

managers will also be more likely to suggest new ideas for the progress of their organization and to help and encourage their subordinates to carry out entrepreneurial efforts.

In contrast, many studies show a positive relationship between psychological ownership and job satisfaction in various management classes (Avey et al., 2009; Pierce, Rubinfeld, & Morgan, 1991; Van Dyne & Pierce, 2004). These studies generally show that ownership increases general satisfaction, which provides a context or environment in which job satisfaction is inherent and positively influenced (Van Dyne & Pierce, 2004). Thus, when managers feel they have an organization, their general satisfaction will result in increased job satisfaction (Van Dyne & Pierce, 2004). Furthermore, when managers experience higher levels of job satisfaction, they may be more likely to engage in individual entrepreneurial behavior that is beneficial to the organization (Akehurst et al., 2009; Antoncic & Antoncic, 2011). This argument leads us to the following mediation hypothesis:

Hypothesis 4: Manager job satisfaction mediates the relationship between psychological ownership and entrepreneurial behavior.

Figure 1 below summarizes the conceptual models and hypothesized relationships.

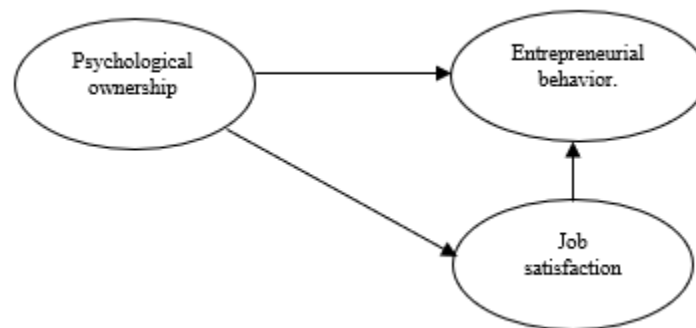


Figure 1: Conceptual framework

### 3. Research Methodology

#### 3.1. Samples and Data Collection

This study aims to examine the proposed relationship between psychological ownership manager, job satisfaction, and their entrepreneurial behavior. Data is collected from a sample of managers working in a manufacturing company in Indonesia. With assistance from the organization's Director of Human Resources, potential managers for this research were identified. Following Floyd and Wooldridge (2007), managers are defined as "members of the organization that connect the activities of several groups that are vertically related and who are responsible for at least the sub-functional workflow, but are not responsible for the overall workflow of the organization.

The company has around 6,000 employees throughout Indonesia. In particular, senior management emphasizes the need for innovation, creativity and entrepreneurial behavior as part of business operations. Thus, since 2005, they have developed a corporate entrepreneurial culture, and thus individual innovation, creativity, risk taking, opportunity seeking, and proactivity have become

important values in organizational strategy. Because this organization is actively trying to develop an entrepreneurial culture in the time that goes through this research, this situation can limit the results of our research and our ability to generalize from our findings.

Our model reduces some of these hazards because our model focuses on the extent to which psychological ownership of managers encourages their individual entrepreneurial behavior and whether job satisfaction plays a role in this relationship. Research on corporate entrepreneurship has long made the mistake that just setting organizational structures or processes that are suitable for corporate entrepreneurship will result in triggering organizational entrepreneurial behavior. There is a black box between the two that is hitherto closed with little insight gained regarding the choices taken by each manager and when they act in an entrepreneurial manner. What determines managerial entrepreneurial behavior is answered only in terms of entrepreneurial firm characteristics, specifically factors at the organizational level, but psychological aspects and aspects of individual behavior are still shrouded in mystery. Therefore, sampling managers in the context we choose seems advantageous to advance understanding. To add confidence to our sample and to test that the findings are representative, we conducted post-hoc power analysis using GPower. The results can be found in the Results section, and this also provides the necessary support.

In September 2017, the company's CEO and Director of Human Resources were met and the purpose of this study was explained. After approval is given, the Director of Human Resources is asked to send a questionnaire to employees identified as managers. The company's electronic mail service is used to distribute questionnaires to these people. Steps are taken to ensure employee anonymity. Two weeks before the start of the survey, an e-mail was sent to the manager appointed by the Director of Human Resources who explained the purpose of this study. In total, 600 electronic mail questionnaires were sent to the manager. Only a fully filled questionnaire used for analysis with partial or incomplete answers is excluded. 120 answers can be used which represent the overall answer level of 17.3%. Of these respondents, 51.4% were male. The largest grouping of respondents (33%) has worked in this company for between 4 and 6 years. Around 74.5% hold a bachelor's degree, while 21.2% hold a graduate degree.

### **3.2. Measuring Instrument**

The questionnaire consists of four parts that measure entrepreneurial behavior, psychological ownership, job satisfaction, and manager's background. To ascertain the validity of the questionnaire, only established and validated measuring instruments from the literature are used. To determine the internal consistency of the construct, a series of factor analyzes were carried out, and Cronbach's alpha was used to test the unidimensionality and reliability between items (Carmines & Zeller, 1979).

Psychological Ownership Manager. A seven-item measuring instrument from Pierce et al. (1991) are used to measure the psychological ownership of managers of companies. All items were measured on a 7 point Likert type scale ranging from 1 = strongly disagree to 7 = strongly agree. Examples of items include "This is my organization" and "I feel a very high level of personal ownership of this organization." Cronbach's Alpha for psychological ownership is 0.79.

Manager Job Satisfaction. The three items measured by Van Dyne and Pierce (2004) and Mayhew, Ashkanasy, Bramble, and Gardner (2007) were used to measure manager job satisfaction. All items were measured on a 7 point Likert type scale ranging from 1 = strongly disagree to 7 = strongly agree. An example item includes "I like the things I do at work" and "In general, I am very satisfied with my job." Cronbach Alpha is 0.83.

Managerial Entrepreneurship Behavior. We followed the procedure from Sieger et al. (2013) to develop a managerial scale of entrepreneurial behavior. An eight item measure for managerial entrepreneurial behavior is generated from this process. At first, we tried to identify the essence and key elements of managerial entrepreneurial behavior from the existing literature. As discussed earlier, entrepreneurial behavior at the individual level is conceptually different from constructs at the enterprise level such as corporate entrepreneurship or entrepreneurial orientation (Kuratko, 2010; Sieger et al., 2013), and varies at the managerial level (Hornsby et al., 2009). Research also shows the behavior of entrepreneurial managers (Pearce, Kramer, & Robbins, 1997) or innovative (Dyer, Gregersen, & Christensen, 2008) different from executives. Specifically, the existing literature conceptualizes managerial entrepreneurial behavior consisting of two main actions (Kuratko, 2010; Kuratko, Ireland, et al., 2005; KG Smith & Di Gregorio, 2002): (1) recognizing and generating new ideas (Hornsby et al., 2009) and (2) helping (or supporting) other people acting entrepreneurship (Kuratko, 2010).

In line with the Sieger et al approach. (2013), we rely on proven scales and existing items from the literature to adequately capture the two key elements of this manager's entrepreneurial behavior. In capturing the first dimension (recognizing and producing new ideas, or producing ideas), we rely on four items adapted from Dyer et al. (2008). Examples of items include "I often generate new and innovative ideas" and "I often generate new ideas by observing our customers." The scale of Dyer et al. (2008) for "innovative manager behavior" containing four components on 19 items but developed through qualitative interviews and then validated with quantitative studies. We adopt and modify items that only concentrate on introducing and producing new ideas that are relevant to our research that are in line with the context of our research, research problems, and definitions of constructs of entrepreneurial behavior.

For the second dimension (supporting others to act entrepreneurship), we rely on a scale of four previous items adapted from Pearce et al. (1997) for "managerial entrepreneurial behavior." Examples of items include "I encourage others to take the initiative for their own ideas" and "I actively promote good ideas from other people." The selected item is the wording sentence length and terminology make sense and can be understood by managers in the context of our research (for example, some items use terms or phrases that are less or unreasonable for managers in Southeast Asia, such as "go to bat for (helping someone when that person need). " Each item from Pearce et al. (1997) has support in the literature, which gives confidence to use relevant items from this set of items. We do not use a complete set of items from Pearce et al. (1997) because of their research equating individual entrepreneurial behavior with "managers who exhibit entrepreneurial orientation. This is problematic because of" entrepreneurial orientation ahaan "is a construct at the company level not an individual construct. Our eight items were measured on a 7-point Likert scale ranging from 1 = strongly disagree to 7 = strongly agree.



Second, after data collection, we conducted an exploratory factor analysis to find out whether the eight items we took from a previously determined scale were related to managerial entrepreneurial behavior and the two expected dimensions of idea production and supporting others to act entrepreneurially were statistically stable for samples we. The rotated factor matrix produces a two-factor solution, and each item is correctly contained in each dimension. The loading factors for our items range from 0.67 to 0.90, which all exceed the limits suggested by Hair, Black, Babin, Anderson, and Tatham (2006). Table 1 also shows that alpha reliability for both dimensions is 0.76 for Idea Production and 0.84 for Supporting Others for Entrepreneurship. Each of these values exceeds the criteria of 0.70 as determined by Hair et al. (2006) and Nunnally (1978) for construct reliability. In measuring the combined scale of managerial entrepreneurial behavior, we first add the scores to each dimension, and then add together each of the dimensions that have been added together to form the overall composite score. Cronbach alpha scale was 0.81.

#### 4. Results

Harman's single factor test was used to test the common method bias (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003). Exploratory factor analysis was carried out on all research variables (Podsakoff et al., 2003). The four-factor solution was found to explain 68.65% of the total variance. The first factor explains 35.21% of the variance. Collectively, this evidence shows the common method that the bias is not problematic because there is no single factor that explains 45% of the total variance. Furthermore, the main variable is focused on testing whether there are potential multicollinearity problems. The Variance Inflation Factor associated with the predictors produced shows a range from 1.02 to 3.48. This range is still within acceptable limits and shows that multicollinearity is not a problem in this study (Hair et al., 2006).

##### 4.1. Descriptive Statistics, Correlations and Hypothesis Tests

The mean, standard deviation, and reliability coefficients are reported in Table 1. All scales were found to be internally consistent ( $\alpha > 0.7$ ) and normal. Table 3 examines the relationships between research variables. Significant positive correlation was found between psychological ownership and entrepreneurial behavior of managers ( $r = 0.32$ ,  $p < 0.01$ ), psychological ownership, and job satisfaction ( $r = 0.44$ ,  $p < 0.01$ ), and between job satisfaction and managerial entrepreneurial behavior ( $r = 0.30$ ,  $p < 0.01$ ). Preliminary evidence from correlation analysis gives a boost to Hypothesis 1 that psychological ownership is positively related to individual entrepreneurial behavior, for Hypothesis 2 that psychological ownership is positively related to job satisfaction, and for Hypothesis 3 that job satisfaction is positively related to entrepreneurial behavior. Although this correlation is encouraging, we tested the directionality shown in our hypothesis using stepwise regression.

Table 1: Correlation among construct and AVE

	<b>Psychological ownership</b>	<b>Entrepreneurial behavior</b>	<b>Job satisfaction</b>	<b>Job experience</b>
Psychological ownership	0,791			
Entrepreneurial behavior	0,242	0,723		

Job satisfaction	-0,022	0,112	0,714	
Job ekperience	0,224	-0,113	-0,004	0.001

Tables 2 contain further hypothesis test results based on stepwise regression analysis. Table 2 examines whether psychological ownership managers are predictors of their job satisfaction. Psychological ownership managers significantly predicted their job satisfaction (Hypothesis 2,  $b = 0.48$ ,  $p < 0.01$ ), explaining 17% of the variance in their level of job satisfaction. Table 5 examines the effects of predictors on managerial entrepreneurial behavior. In Step 1, psychological ownership and control variables are included, while Step 2 adds job satisfaction. Psychological ownership managers were found to predict their entrepreneurial behavior significantly (Hypothesis 1,  $b = 0.23$ ,  $p < 0.01$ ). Similarly, manager satisfaction with their work was also found to predict their entrepreneurial behavior significantly (Hypothesis 3,  $b = 0.14$ ,  $p < 0.01$ ). Independent variables (psychological ownership and job satisfaction) explain 12% of additional variance (adjusted R<sup>2</sup>) the level of entrepreneurial behavior of managers with 9% of this comes from psychological ownership managers.

**Table 2. Correlations Among the Variables.**

Variables	1	2	3	4	5	6
1. Age						
2. Gender	-0.02					
3. Job experience	0.87**	-0.08				
4. Job tenure	0.46**	0	0.51**			
5. Entrepreneurial behavior	0.11	0.10	0.12	0.13		
6. Job satisfaction	0.14	0.03	0.07	0.05	0.30**	
7. Psychological	0.21*	-0.01	0.21*	0.12	0.32**	0.42**

\* $p < .05$ ; \*\* $p < .01$ .

Hypothesis 4 predicts that the relationship between psychological ownership manager and their entrepreneurial behavior will be mediated by job satisfaction. To test this hypothesis, the steps outlined by R. M. Baron and Kenny (1986) in conducting mediated regression were followed. R. M. Baron and Kenny (1986) argue that three specific requirements must be met for mediation to occur. First, the relationship between independent variables (psychological ownership) and potential mediators (job satisfaction) is determined. The regression results are presented in Table 3 and show that the psychological ownership and control variables (age, sex, and work period) explain significant mediator variance (job satisfaction;  $R^2 = 0.17$ ,  $F = 6.52$ ,  $p < 0, 01$ ). In addition, the independent variable (psychological ownership) certainly affects the dependent variable (managerial entrepreneurial behavior). Second, the relationship between psychological ownership, job satisfaction, and entrepreneurial behavior is determined by entering psychological ownership along with control variables in Block 1 and mediators (job satisfaction) in Block 2. Third, when mediators (job satisfaction) are included in Block 2, coefficients for psychological ownership manager fell to  $b = 0.17$  ( $p < 0.05$ ). This fulfills the third requirement and shows the existence of partial mediation.

To test the significance of job satisfaction as a mediator in the relationship between psychological ownership and entrepreneurial behavior of managers, 5,000 resample bootstrapping is used to follow the procedures described by Preacher and Hayes (2008). According to Preacher and Hayes (2008), mediation is said to be significant if 95% bias corrected and accelerated confidence intervals (CI) for indirect effects do not include zero (Preacher & Hayes, 2008). The bootstrap results show that after taking into account the effects of age ( $b = 10.01$ ,  $SE = 0.01$ ,  $p < 0.05$ ), gender ( $b = 0.12$ ,  $SE = 0.09$ ,  $p < 0.05$ ), work experience ( $b = 0.08$ ,  $SE = 0.09$ ,  $p < 0.05$ ), and work period ( $b = 0.05$ ,  $SE = 0.07$ ,  $p < 0.05$ ), psychological ownership has an effect the total was significant for managerial entrepreneurial behavior ( $b = 0.23$ ,  $SE = 0.07$ ,  $p < 0.05$ ) and significant residual direct effects ( $b = 0.17$ ,  $SE = 0.07$ ,  $p < 0.05$ ). Job satisfaction partially mediates the relationship between psychological ownership and entrepreneurial behavior (i.e., lower 95% CI = 0.0126, upper 95% CI = 0.1311). Collectively, these results show support for the existence of partial mediation for Hypothesis 4.

Finally, we conducted post-hoc power analysis using GPower (Faul & Erdfelder, 1992) with sample sizes 136 and 6 predictor variables as baselines to test whether our samples and findings were precise and representative. We used the following recommended effect sizes for this assessment: small ( $f^2 = 0.02$ ), moderate ( $f^2 = 0.15$ ), and large ( $f^2 = 0.35$ ) as suggested by Cohen (1977). Post-hoc power analysis shows that the power to detect effects obtained at the 0.05 level is 0.97 for overall regression in predicting managerial entrepreneurial behavior. This is well above the value of 0.8 recommended by Cohen (1977) and Field (2009). We can therefore conclude that we have sufficient strength to detect small effects with a sample of 136, and we can be sure of the accuracy of our samples and findings to protect against Type II errors (incorrectly accepting the null hypothesis; Field, 2009).

## 5. Discussion

What determines entrepreneurial behavior of managers in the absence of formal ownership (Kuratko, 2010; Lau, Shaffer, Chan, & Man, 2012; Rigtering & Weitzel, 2013; Wales, Monsen, & McKelvie, 2011)? To answer this question, we use the ownership psychology literature to examine whether job satisfaction mediates the relationship between psychological ownership managers and their entrepreneurial behavior using a sample of 136 managers from Singapore. We found a positive relationship between psychological ownership manager and their entrepreneurial behavior, and the partial mediation of this relationship was found with job satisfaction.

Our findings provide some empirical and theoretical contributions to the literature. Empirically, we show a positive relationship between managers' sense of organization and their satisfaction with their work, which, in turn, positively influences their likelihood of entrepreneurial behavior. The effect of intermediate relations was found to be partial, which means that the direct relationship between psychological ownership and managerial entrepreneurial behavior must also explain some of the variances found among these variables. Usually, "ownership is a resource that can be used to support or oppose management depending on how ownership is concentrated and used" (Salancik & Pfeffer, 1980, p. 655). In organizations, senior management tends to experience ownership (because they may have some form of share ownership in their organization) and control, and besides that entrepreneurial behavior is needed (Floyd & Wooldridge, 2007; Sieger et al., 2013).

However, the same cannot be said for managers, because they tend to have no share ownership in their organizations (Kuratko, 2010). Thus, empirically demonstrating the importance of psychological ownership managers being important and refocusing attention on this important group of managers. Managers are generally assigned to run corporate entrepreneurial strategies from senior managers (Hornsby et al., 2002; Ireland et al., 2009; Kuratko, Ireland, et al., 2005); but, in addition to structural and process-based guidance, managers as human agents are treated solely as robots which, if given the right organizational conditions, "will" act entrepreneurship. Our evidence shows that their possibility of showing individual entrepreneurial behavior can depend on their feelings of psychological ownership and job satisfaction. Therefore, we direct attention to this important individual component when explaining the human dimension of corporate entrepreneurship.

By developing a sense of psychological ownership of their organization, managers may also eventually consider themselves as owners, even though they do not have formal ownership (Pierce et al., 2001). Thus, managers will be more likely to build awareness to advance the organization and its well-being (Avey et al., 2009; Van Dyne & Pierce, 2004). Cognitive focus and increased emotional attachment with the organization and its stakeholders can be channeled by acting entrepreneurship. Therefore, in addition to structural factors that encourage growth and organizational development, managers can be motivated to look for opportunities and new ideas for products or services and help their subordinates to do the same through psychological ownership and job satisfaction. It is the duty of senior managers to generate psychological processes for managers and this field will benefit from further investigation of this important relationship.

The results of our study also show that manager job satisfaction positively influences their entrepreneurial behavior. This finding supports previous observations by Kuratko, Ireland, et al. (2005). Entrepreneurial actions often require sustained effort and energy (Antoncic & Antoncic, 2011) for managers to generate creative ideas and take the initiative to help their colleagues behave in entrepreneurial ways. Such efforts will be more likely to occur if managers are very satisfied with their work. Because psychological ownership managers can directly influence their entrepreneurial behavior and increase their job satisfaction, then building a sense of psychological ownership will be a very important predictor of their possibility to perform tasks that facilitate corporate entrepreneurship.

Through the psychological ownership feeling, managers also tend to gain a sense of control over entrepreneurial decision making for the organizations they serve. Autonomy proved to be a strong predictor of job satisfaction (Antoncic & Antoncic, 2011). Thus, manager's job satisfaction can increase the feeling of psychological ownership, which in turn affects their likelihood of entrepreneurial behavior. In general, this means that an organization can increase managerial and positive organizational behavior in managers not only through providing compensation and compensation but also through increasing ownership of their organizations and their work (Pan, Qin, & Gao, 2014).

The findings of our study also made some timely theoretical contributions to the existing literature. First, our findings support the opinion of Sieger et al. (2013) that individual entrepreneurial behavior is an effective way to assess whether belongingness is expressed in organizational

behavior. In addition, our study extends the literature on the consequences of psychological ownership of behavior (Avey et al., 2009) by including additional pro-organizational behavior that has not been studied by the literature, namely entrepreneurial behavior. Second, we highlight the strategic meaning of managers in organizations. The literature in this field has so far been largely conceptual and focused on the organizational antecedents of entrepreneurial behavior of managers (Dopson & Stewart, 1990; Hornsby et al., 2002; Kuratko, Ireland, et al., 2005) not their choices and tendencies to carry out these behaviors as well as psychological factors that influence their entrepreneurial behavior.

Too little is known about the process by which antecedents at the individual level influence managerial entrepreneurial behavior. In developing our conceptual model, our research offers insight into the process by which factors at the individual level can influence their entrepreneurial behavior. And, in assessing the psychological ownership of managers from non-Western countries, we also add a small but growing stream of research that investigates the effects of ownership in various contexts and organizational cultures (Ramos et al., 2014). This collection of contributions enables corporate entrepreneurship researchers to outline the reasons why managers might not do corporate entrepreneurship, even though executives have established a pro-entrepreneurial architecture. This has long been a vacuum in research on corporate entrepreneurship (see Ireland et al., 2009), and our research offers a starting point for further insight through the use of psychological theory.

### **5.1. Conclusion**

Organizational sustainability increasingly depends on employee entrepreneurial behavior. Their ability to identify opportunities, generate profitable ideas, take calculated risks, innovate, and help strategic reform is fundamentally important for value creation and wealth. The contribution of this research relates to the question of what psychological processes influence entrepreneurial behavior of company managers. There are findings that individual ownership can directly influence their entrepreneurial behavior (Hypothesis 1), and that psychological ownership influences job satisfaction (Hypothesis 2). In addition, there are findings that job satisfaction can improve entrepreneurial behavior (Hypothesis 3) and also act as a partial mediator for the relationship between psychological ownership and entrepreneurial behavior (Hypothesis 4). Based on psychological ownership and job satisfaction to explain entrepreneurial behavior in established organizations, this research adds to the understanding of corporate entrepreneurship. This provides a new opportunity for researchers to advance knowledge about perpetuating entrepreneurship in companies, a topic that has still not been thoroughly studied to date.

### **5.2. Managerial Implications**

If a senior manager in an organization has an interest in enhancing the entrepreneurial activities of his staff, the focus on a sense of belonging and middle management job satisfaction becomes very important. This will not only increase the likelihood of middle management identifying opportunities, developing ideas, and taking risks, but also means they are more likely to encourage these behaviors throughout the organization. These managers do not have ownership in this organization, but there are variations in their perceptions of how they feel they have the results of their efforts. This variation in perceptions, together with a feeling of job satisfaction, influences

their possibility of acting in an entrepreneurial manner. Sense of belonging not only perpetuates senior management, as identified by previous research on entrepreneurship, but also important for other ranks in an organization. Giving people a sense of control over their work, fostering positive organizational values, and building a sense of togetherness, all of which can affect the emergence of a sense of belonging. Thus, facilitating perceptions has very important for middle management entrepreneurial behavior.

### 5.3. Limitations

Organizational researchers are obliged to ensure that theoretical claims have validity, and this research, in a multinational organization, ensures a high level of ecological validity can be concluded with these findings. However, there are always limitations on the findings of research conducted in the field. First, claims regarding the direction of causality must be made tentatively. In line with existing research (Antoncic & Antoncic, 2011; Kuratko, Hornsby, et al., 2005), this study shows that satisfied employees will do their work more effectively. However, the relationship between job satisfaction and performance can be complex (Judge et al., 2001). Future research can work for longitudinal datasets, so as to increase understanding of causality among research variables. Research is expensive, difficult to implement, and often impossible because the organization's sponsor can move to a new role before the research is completed. However, this study adds to a collection of studies that provide support for the direction of causality proposed here (Kuratko, Hornsby et al., 2005; Mayhew et al., 2007; Vandewalle et al., 1995).

Previous research also shows that entrepreneurial behavior in established organizations can be the result of complex processes, which shape and direct individual opportunity structures (Kuratko, Ireland, et al., 2005; Rutherford & Holt, 2007). Previous research also shows that certain entrepreneurial behaviors in organizations can vary with respect to organizational levels (Hornsby et al., 2009) and types of sectors or industries (Axtell et al., 2000). This research confirms that entrepreneurial behavior can be explained to middle management employees, but there are limitations to generalizations that might be made. As the research framework develops, more contexts and types of employees can be learned to ensure the model takes into account the complexity of each context. Advanced modeling techniques will also help integrate levels of analysis in various organizational and industrial settings in theoretical models, and this provides an opportunity for further research on this topic.

### 5.4. Future Research

The findings of our study open a number of interesting avenues for future research. First, even though the theoretical reasoning behind the psychological ownership effect on behavioral consequences has increasingly made the company much examined empirically, the evidence for this effect is still split. For example, while Pierce et al. (2003) prove a significant relationship between psychological ownership and psychological outcome, Mayhew et al. (2007) unable to do so. In addition, these findings consistently show a strong relationship between psychological ownership and work attitude but not always strongly related to work behavior. One reason might lie in the nature of psychological ownership. Future research must determine whether certain dimensions of psychological ownership are more or less likely to influence behavioral or attitudinal outcomes.

Second, Avey et al. (2009) argue that psychological ownership has two important dimensions: the focus of promotion and prevention regulations. Based on the research of Kark and Van Dijk (2007), Avey et al. (2009) show that people who have it focused on promotion tend to care more about what they achieve and their aspirations (and this can lead to willingness to take risks). Those who feel they have focused on prevention tend to be more concerned with their duties and obligations and therefore may experience anxiety when they do their jobs. After establishing a relationship between psychological ownership and entrepreneurial behavior of managers, future research can explore the effects of focusing on regulation on subsequent behaviors and attitudes. Third, Beggan (1992) shows that ownership is more likely to occur when someone has a sense of place, sense of belonging, and strong personal space in the organization. This is also more likely to occur in individuals who have a significant working period in the organization. Sturman (2003) shows that tenure serves as an easily obtainable proxy for organizational socialization and organizational experience. Zampektakis, et al. (2009) found that tenure in organizations has a significant effect on individual entrepreneurial behavior in established organizations. Future research can explore the effects of samples that are more distributed based on years of work than can be achieved by this study. Finally, this research fills a gap in our understanding of what variables and attitudes at the individual level motivate and explain entrepreneurial behavior in established organizations. Recognizing that entrepreneurial behavior occurs through complex processes within the organization (Rigtering & Weitzel, 2013), future research can examine possible interactions between individual and organizational factors.

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