ENTREPRENEURSHIP BY CIRCUMSTANCES AND ABILITIES: THE MEDIATING ROLE OF JOB SATISFACTION AND MODERATING ROLE OF SELF-EFFICACY

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ENTREPRENEURSHIP BY CIRCUMSTANCES AND ABILITIES: THE MEDIATING ROLE OF JOB SATISFACTION AND MODERATING ROLE OF SELF-EFFICACY

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ABSTRACT

Existing literature on entrepreneurship often regards job dissatisfaction as an entrepreneurial push factor and self-efficacy as an entrepreneurial pull factor. The argument is that individuals who are dissatisfied with their jobs are more likely to seek alternative modes of employment such as self-employment. On the other hand, personal abilities such as self-efficacy may pull individuals toward starting their own businesses in areas where they are confident and competent in. Despite the importance of job dissatisfaction and self-efficacy for new venture creation, few if any studies have examined the entrepreneurial phenomena from a holistic perspective. Utilizing concepts from the P-E fit and self-efficacy literatures, we specifically examined how IT professionals' personal attributes such as innovation orientation and self-efficacy condition individuals for an entrepreneurial career in unsatisfactory work environments.

LITERATURE REVIEW AND HYPOTHESES

P-E fit and Job Satisfaction

Organizational innovations evolved from creative ideas and creative ideas in turn are derived from the contributions of technical employees. Therefore, it is imperative for organizations to understand the factors that could plausibly influence employees' motivation and ability to be creative. This is particularly important in the IT environment that is often characterized by rapidly evolving technology and volatile markets. In today's technology-dominated world that is filled with constant renewal and regeneration of new ideas, the need to not only attract but retain competent IT employees is crucial for organizations to remain on the cutting edge of technology (McMurtrey et al., 2002). IT professionals are traditionally known to leave their organizations upon acquiring valuable skill-sets and experience to start their own ventures (Roberts, 1991) or to work for other organizations (Jiang and Klein, 1999).

There is a vast literature on the factors that influence employees’ turnover (see Tett and Meyer, 1993 for a meta-review) and among this literature, there is a subset of studies that focus on the factors affecting turnover of IT professionals (Igbaria et al., 1994). A key tenet of these studies is that job satisfaction is inversely related to IT professionals’ turnover intention (Igbaria and Guimaraes, 1999). Job satisfaction, a construct that is commonly understood as the extent to which employees like their work is widely researched in terms of its determinants and consequences (Judge and Larsen, 2001; and Thomas et al., 2004).

A common thread that emerged from these studies is the significant impact of organizational climate on employees’ job satisfaction (Agho et al., 1993; Welsch and LaVan, 1981). Organizational climate generally defined as the individual’s perception of his or her work environment (Hellriegel and Slocus, 1974) has long been recognized as a source of influence on individuals’ job satisfaction (Keenan and Newton, 1984) and has been found to prevail across a range of occupations. Evidence of what constitutes organizational climate dates back several decades ago (James and Jones, 1974) but continues to remain influential in current studies (Patterson et al., 2005). Among the various areas of organizational climate,
management support, peer support, and opportunities for innovation to name a few are often cited as typical aspects of an organizational climate (Niehoff et al., 1990; Yuki, 1989).

In the case of IT professionals, researchers found that strong supervisory support and encouragement often lead to increased job satisfaction (Igbaria and Greenhaus, 1992; Jiang and Klein, 1999). Trust and support from one’s superior goes a long way in helping to alleviate potential job hazards such as stress, burnouts and emotional exhaustion, which are inherent in IT environments (Chilton et al., 2005). Evidence in the literature also indicates that IT employees who experienced work stress and job burnouts tend to be dissatisfied with their jobs (Goodhue and Thompson, 1995). The adverse effects of job stress and burnouts on employees’ job satisfaction are probably more severe in an organizational climate that is non-supportive of innovation.

While numerous studies have posited the importance of supervisory support for employees’ job satisfaction, others have suggested that peer support is positively linked to higher levels of job satisfaction (Lee, 2004). The IT profession is arguably one of the most stressful and demanding occupations (Chilton et al., 2005), thus requiring stronger social support from both supervisors and work colleagues to buffer the impact of the occupational stress involved (Cummings, 1990). An organizational climate supportive of innovation is additionally demonstrated in terms of the degree of innovative opportunities provided to its employees (Niehoff et al., 1990). The freedom and independence to experiment and find better ways of doing things facilitate the innovative process, and is an important aspect of organizational climate, which is strongly link to employees’ job satisfaction (Bass, 1985). Conclusively, these studies signify that for employees who thrive at the front end of technology, case in point – IT professionals, an organizational climate that supports creativity and innovation would promote higher levels of job satisfaction as opposed to an unfavourable climate for innovation.

Based on the above discussion, the following is hypothesized:

**H1a: The less supportive the organizational climate for innovation, the higher will be the level of job dissatisfaction for IT professionals.**

Along with a supportive organizational climate for innovation, adequate incentives for technical excellence in the form of rewards (Eisenberger and Rhoades, 2001), training (Huang, 2001), job enrichment (Hackman and Oldham, 1976), and resource support (Amabile, 1988) are important constituents of an innovative environment. Commentators of the job satisfaction literature have long accepted that rewards are significant factors that influence employees’ motivation and satisfaction (Eisenberger et al., 1997; Fasolo, 1995). In a similar vein, researchers in the technology domain have observed the positive relationship between a supportive reward system and motivation of technologists in information technology companies (Sankar et al., 1991).

Another key source of incentive for technical excellence among IT professionals is training (Ranft and Lord, 2000). Research has established that organizational support and commitment for training help enhance employees’ job competency, increase their sense of belonging to the organization, and ultimately improve levels of job satisfaction (Mak and Sockel, 1999). Organizations that are unwilling or unable to provide these incentives to its members are likely to experience employees who are dissatisfied with their jobs. Apart from training, the availability of adequate resources such as equipment, facilities, and time has been accepted as one of the incentives for technical excellence (Amabile, 1988). The amount of satisfaction employees derived from their work is also largely dependent upon the nature and characteristics of their job, popularly known as the job enrichment element (Ondrack and Evans, 1986).

Based on the aforementioned points, it is evident that when organizations provide supports for harnessing IT professionals’ competencies, these employees would feel more confident and competent to engage in creative pursuits for innovation thus attaining higher levels of job satisfaction. The lack of
incentives for technical excellence, on the other hand, leaves IT professionals feeling incompetent and it dampens their motivation to pursue creative ideas.

Thus, we expect the following hypothesis:

\[ H1b: \text{The more unsatisfactory the incentives are for technical excellence, the higher will be the level of job dissatisfaction.} \]

While work environment undeniably plays an important role in formulating employees’ attitudes and behaviors toward their jobs (Blau, 1999), individual characteristics interact with environmental stimuli to produce differential responses. Indeed, the basic tenet of the P-E fit perspective prevalent in organizational studies postulates employees’ attitudes and behavior at work as a function of individual characteristics and the environment they work in (Thomas, et al., 2004). In a study that examines the P-E fit paradigm, Cable and Edwards (2004) found that individuals with different orientations such as self-enhancement and openness to change possess different types of needs, and thus derive different levels of fit against a specific organizational context. In the context of our study, we argue that IT professionals’ work orientations, particularly orientations toward innovation would interact with the innovative environment of the organization to create different levels of fit. Innovative-oriented employees are characterized by their penchant for creativity and preference for risk and challenge. These inspiring needs are best served and matched by a supportive organizational climate for technological achievements. In other words, for congruence between employees and organizations to take place, there must be a fit between the needs and values of employees with those of the organizations.

As stated previously, we conceptualize the innovative environment of an organization into two facets: climate for innovation, and incentives for technical excellence. The complementary fit perspective of the P-E fit paradigm is applied to analyze the congruence between these two facets and the innovation orientation of IT professionals. Specifically, we use the needs-supplies argument of the complementary fit perspective to examine the effects of P-E fit on IT professionals’ job satisfaction. According to Cable and Edwards (2004, pg. 822), the needs-supplies view postulates that complementary fit occurs when the organization provides (supplies) the incentives and rewards that their employees requires (needs). In a recent meta-analysis of the consequences of individuals’ fit at work, Kristof-Brown et al. (2005) found that the needs-supplies fit has substantially higher predictive power on employee job satisfaction (.61 vs .41) and intent to quit (-.50 vs -.23).

By simply assessing the impact of organizational climate and incentives on job dissatisfaction without taking into account differences in individual orientations would not yield an accurate account of the effects. In a study on university employees, Yperen and Janssen’s (2002) found that people who are exposed to the same work environment do not necessarily have similar levels of job satisfaction. Depending on their goal orientation, employees who face high job demands could either experience job satisfaction or dissatisfaction. For example, people who encounter high job demands but have weak mastery orientation are more likely to experience job dissatisfaction.

In a similar vein, we propose that the effects of an innovative organizational climate and incentives for technical excellence on the attitudes of IT professionals would vary with their needs for innovative and creative work. IT professionals with high innovation orientation would experience higher levels of job dissatisfaction in an organization that has poor innovation climate because these individuals require a work environment that supports and rewards innovative pursuits.

\[ H2a: \text{In an environment of restrictive work climate for innovation, IT professionals with higher innovation orientations are more likely to experience high levels of job dissatisfaction.} \]

\[ H2b: \text{In an environment with inadequate incentives for technical excellence, IT professionals with higher innovation orientations are more likely to experience high levels of job dissatisfaction.} \]
From job dissatisfaction to entrepreneurial intention

There is a common agreement among researchers that employees who are dissatisfied with their jobs would either leave or continue working with the organizations (Farrell, 1983; Rusbult et al., 1988). The four generic responses to job dissatisfaction such as exit, voice, loyalty, and neglect advocated by these authors reflect the dual demarcation of reactions to job dissatisfaction with exit representing the quitting option and the latter three representing the staying option. In this study, we focus on the exit option that employees would take when they are dissatisfied with their jobs. Our intention is driven, in part by the copious amount of evidence documenting the positive relationship between dissatisfaction and turnover (Shapero and Sokol, 1982). While recognizing that discontented employees could either leave for other organizations or leave to start their own businesses, we are interested in the latter i.e. effects of job dissatisfaction on self-employment. Studies have shown that job dissatisfaction is one of the most important factors that lead to new venture creation (Cromie, 1998).

The influence of dissatisfaction with previous employment on the decision to start a business is well established in the “push” theory of entrepreneurship. Proponents of the “push” literature argue that individuals are driven into entrepreneurship by negative situational factors such as dissatisfaction with one’s job (Shaver and Scott, 1991; Watson et al., 1998). This argument is also supported by Eisenhauer (1995), who concluded that individuals would be motivated to be self-employed if the satisfaction accrued from wage employment is lower than the perceived satisfaction possibly derived from self-employment.

The basic premise of the “push” effects on entrepreneurial decisions is relevant for IT personnel because studies have shown that IT professionals are more motivated by challenge and have higher needs for achievement as compared to other occupational holders (Couger, 1988). The entrepreneurial route, which promises exceptional risk and challenge, offers excellent opportunities for these individuals to realize their aspirations for greater achievement, autonomy and independence.

Therefore, we expect the following hypothesis:

**H3:** The higher the level of job dissatisfaction, the greater the likelihood of entrepreneurial intention.

Taking this argument a step forward, we reason that job dissatisfaction is a necessary but not sufficient condition for IT professionals to leave their paid employment to start their own businesses. The rationale is that job dissatisfaction is a fundamental factor that motivates IT employees to consider self-employment but on its own would not necessarily push individuals to take the entrepreneurial plunge. The entrepreneurial career choice is not determined by push factors alone such as job dissatisfaction, but also depends on the ability factors, widely known as the self-efficacy element (Bandura, 1986). It plays a major role in the entrepreneurial career choice of IT professionals because the motivation to act is based in part on whether they perceive being an entrepreneur is possible in terms of their ability to execute the relevant tasks. Generally, the extant literature indicates that individuals with high self-efficacy have stronger intrinsic interests in entrepreneurial tasks, and likely to perceive a business start-up as feasible (Kolvereid, 1996).

In our study, we define self-efficacy from a task-based perspective, which is essentially a specific, narrow, and microanalytic explication of the construct (Bandura, 1986). Researchers like Bandura (1986) and Pajares (1996) argued that it is important to operationalize the self-efficacy construct in a specific and narrow way so that it corresponds closely to the behavior that is predicted. In the case of the IT profession, the ability and confidence to perform a set of IT and non-IT related tasks reflect the individual’s level of self-efficacy in the IT domain. Based on this view, self-efficacy of IT professionals is defined as their perceived competency and know-how of a set of IT and non-IT skills, which according to the literature are important for entrepreneurial intent. We hypothesize that self-efficacy would provide the
additional incentive for IT professionals who are dissatisfied with their wage jobs to start their own businesses.

**H4:** Among IT professionals with low levels of job satisfaction, higher levels of self-efficacy will be associated with greater entrepreneurial intent.

**METHOD**

**Data Source**

Data for this study was obtained from the 1995 Singapore National Computer Board survey of IT professionals. A sampling frame of organizations employing IT professionals in Singapore was developed from Infocomm Development Authority (IDA) Singapore. The frame was stratified by sectors such as vendors, end-users and government. Invitations to participate in the survey were mailed to 9,527 IT professionals from these sectors and a final sample of 4,192 usable questionnaires (1,299 from vendor firms, 1,326 from IT user firms and 1,567 from government organizations) was returned, yielding a response rate of 44%.

The respondents’ work experience in IT related areas averaged 5 years while the average age of respondents is between 35-39 years old. 53% were males and 47% were females and the majority of the respondents had an income between S$45K to < S$60K. In terms of the highest qualification attained, 42% of respondents held undergraduate degrees, 20% had postgraduate degrees, 33% had diploma or technical qualifications, and 5% had below diploma or technical qualifications.

**Measures**

The measures used in this study are outlined below. Unless otherwise indicated, all the constructs used a five-point Likert scale response that ranged from strongly disagree (1) to strongly agree (5).

**Entrepreneurial intention.** Entrepreneurial intention was measured with a two-item scale i.e. “I have always wanted to work for myself (i.e. be self-employed)” and “If I have the opportunity, I would start my own IT company” ($\alpha = 0.720$).

**Incentives for technical excellence.** We developed a 7-item scale to measure incentives for technical excellence (due to space constraints, we report only selected items. The complete items used can be obtained from the corresponding author). When necessary, we reverse-scored the items so that higher scores reflected greater incentives. Examples of items are “My organization has limited budget for IT skills development” (reverse-coded) and “Where I work, we are rewarded for technical competence” ($\alpha = 0.803$).

**Climate for innovation.** We used a 6-item scale to measure climate for innovation. Similar to incentives for technical excellence, we reverse-coded some items. Examples of items used are “My supervisor rarely solicits ideas from me to solve technical problems” (reverse-coded) and “Based on their experience, my peers often suggest new approaches to solving technical problems” ($\alpha = 0.826$).

**Job dissatisfaction.** Three items adapted from the Michigan Organizational Assessment Questionnaire (Seashore et al., 1982) were averaged to create a measure of job dissatisfaction ($\alpha = 0.845$).

**Innovation orientation.** Innovation orientation was measured with a 6-item scale. Examples of items used are “I often take risks in unfamiliar assignments”, “Where possible, I take on technically difficult and challenging job assignments”, and “I am technically up-to-date” ($\alpha 0.807$).
Self-efficacy. Respondents were asked to rate their skills in a number of IT related areas such as software development, database design/administration, and development of multimedia applications along scales where 1 = None, 2 = Basic, 3 = Competent, 4 = Advanced, 5 = Expert ($\alpha$ = 0.883).

Control variables

Six control variables were employed in this study. They were gender, highest education attained, experience in IT related work, age, opportunity cost (operationalised as current income), and opportunity exposure (operationalised as two dichotomous variables i.e. IT Sales & Marketing job function and IT Research and Development job function). Highest education attained was operationalised as four qualification categories; postgraduate degree, undergraduate degree, diploma and technical degree, and below diploma and technical degree (reference category). Actual age of the respondents was used while income was measured with ordinal categories [<S$30K, S$30-K$60K, S$60K-$100K, S$100K and more (reference category)].

Data Analysis

Both structural equation modeling (SEM) and hierarchical regressions were employed to evaluate the theoretical relationships in the conceptual model of entrepreneurship presented in Figure 1. The Linear Structural Relationships (LISREL 8.7) program was used to evaluate and test hypotheses 1a, 1b and 3 and hierarchical regression was used to test the moderating effects of self-efficacy and innovation orientation in hypotheses 2a, 2b and 4. Given the recognized difficulty in handling interaction terms in the modeling process (Ping, 1995; Hayduk, 1996), normal regression was used as an alternative method of analysis of the interaction effects in the model. It was also not appropriate to use a multi-sample approach in the SEM analysis as both the interacting variables are non-categorical (Rigdon et al., 1998). Furthermore, given that the moderating variable, self-efficacy consists of 38 items/indicators, it was not practical to include all possible multiplication pairs in the modeling process.

Measurement assessment procedures for SEM

To assess the unidimensionality of the indicators (i.e., each set of items for an indicator has only one underlying construct in common), the 62 items that composed the variables of interest were subjected to a confirmatory factor analysis (CFA). In the CFA model, each item is restricted to load on its pre-specified factor. The CFA resulted in a good fit to the data [$\chi^2 (674) = 2983.45, p < .000]$. No items cross-loaded on factors they were not intended to measure. We also assessed additional fit indices and parsimony indicators (i.e., CFI, IFI, RMSEA, NFI, and PNFI) to determine whether or not model fit was acceptable. Results from the analysis showed that the model fit was acceptable (CFI = .94, IFI = .93, RMSEA = 0.06, NFI = .95, PNFI = .90) suggesting that unidimensionality was demonstrated i.e. the final set of items uniquely represented the variables of interest.

RESULTS

Structural model estimation

The conceptual model of Figure 1 is simultaneously estimated in a structural equation model using WLS estimation procedures. The structural model contains six latent variables and 62 observable indicators. The fit indices (CFI = .94, IFI = .93, RMSEA = 0.06, NFI = .95, PNFI = .90) reveal that the final structural model is fairly good as it reproduces the population covariance structure, and that there is an acceptable discrepancy between the observed and predicted covariance matrices. Table 1 contains the WLS direct, indirect and total effects parameter estimates for the structural form of this model.
The results in Table 1 indicate that the organization’s climate for innovation has a highly significant negative direct impact on job dissatisfaction ($\gamma = -0.54, \rho < 0.001$), providing support for hypothesis 1a. Similarly, as predicted by H1b, the standardized estimates showed that the organization’s incentives for technical excellence is inversely related to job dissatisfaction i.e. the more unsatisfactory the incentives are for technical excellence, the higher will be the level of job dissatisfaction ($\gamma = -0.61, \rho < 0.001$). We also found support for hypothesis 3 that job dissatisfaction has a significant positive direct impact on entrepreneurial intention ($\gamma = 0.55, \rho < 0.001$). Additionally, the results revealed that both indicators of the organization’s innovative environment i.e. climate for innovation and incentives for technical excellence have a significant negative indirect impact (via job dissatisfaction) on entrepreneurial intention. The indirect effects of both climate for innovation and incentives for technical excellence on entrepreneurial intention are statistically more significant ($\rho < 0.001$) than the direct effects ($\rho < 0.05$).

Apart from confirming hypotheses 1a, 1b, and 3, the results in table 1 illustrate that most of the unhypothesized relationships among the latent variables in the model are statistically non-significant. Organization’s climate for innovation and incentives for technical excellence have no significant impact on the other two exogenous variables i.e. innovation orientation and self-efficacy. In a similar vein, innovation orientation and self-efficacy are not significantly related to entrepreneurial intention. In sum, while the SEM results found support for hypotheses 1a, 1b, and 3, none of the unhypothesized relationships were statistically significant.

Hierarchical regressions

We tested hypotheses 2a, 2b and 4 using moderated hierarchical regression analysis. The variance inflation factor (VIF) for each of the regression coefficients ranged from a low of 1.153 to a high of 2.235, well below the cut-off point of 10 (Neter et al., 1985), indicating that there are no multicollinearity problems. As Tables 2 and 3 show, we estimated regressions models to examine the contribution of the main effects toward the explanation of the dependent variable i.e. job dissatisfaction in table 2 and entrepreneurial intention in table 3. We found that for job dissatisfaction, the interaction effects of innovation orientation and climate for innovation and incentives for technical excellence were statistically significant ($\beta = -3.88, \rho < 0.001; \beta = 3.49, \rho < 0.001$). This finding supported our hypothesis that in an environment of restrictive work climate for innovation and inadequate incentives for technical excellence, IT professionals with higher innovation orientations are more likely to experience high levels of job dissatisfaction. The control variables of age, reward satisfaction, and training orientation were statistically significant at the 5% level. Overall, the regression in model 4 of Table 2 appears to be reasonably defined with significant F-statistics and adjusted R-squared value of 28%.

Similarly, the regression results reported in Table 3 provided support for hypothesis 4 that among IT professionals with low levels of job satisfaction, higher levels of self-efficacy will be associated with greater entrepreneurial intent. The interaction effect of job dissatisfaction and self-efficacy were statistically significant ($\beta = 3.47, \rho < 0.001$). The results also confirmed the significant relationships between the control variables (e.g. gender, IT experience, undergraduate degree = $\rho < 0.01$) and entrepreneurial intention. The full model in Table 3 explains about 29% (F- 9.402; $\rho < 0.001$) of the variance in entrepreneurial intention.

DISCUSSION

In this study, we proposed and tested a model in which organizational climate for innovation, incentives for technical excellence, individuals’ innovation orientation, and self-efficacy were hypothesized to effect entrepreneurial intention directly and indirectly through job dissatisfaction. Consistent with the P-E fit conceptual framework, we found that although the organization’s innovative environment in terms of its climate and incentives for technical excellence were significantly related to
job dissatisfaction, these contextual factors interact with individual differences such as innovation orientation to influence job dissatisfaction. While dissatisfaction with one’s job was identified as a significant source of influence on entrepreneurial intention, the motivational push factor of job dissatisfaction was found to be an insufficient condition that might lead to new venture creation. Our findings showed that job dissatisfaction has a stronger positive relationship with entrepreneurial intention when self-efficacy is high. The results of our study suggest that self-efficacy, defined as the confidence in one’s ability to execute a set of IT and non-IT related tasks provides the additional stimulus that draws dissatisfied IT professionals into starting their own businesses.

The framework of our research indicates that the path leading to entrepreneurial intent is indeed a multi-faceted process. From a holistic view of the antecedents to entrepreneurship, we established that job dissatisfaction significantly mediates the relationship between both climate for innovation and incentives for technical excellence and entrepreneurial intention. However, in the context of IT professionals who are in wage employment, an unsatisfactory work environment would not necessarily push them into self-employment. Differences in individual characteristics such as their orientation towards innovation and perception of self-efficacy have significant moderating influence on IT professionals’ intent to become entrepreneurs. Evidence from our study illustrate that IT professionals could be unhappy with a non-supportive environment for innovation and thus experience job dissatisfaction but not all would respond to a restrictive environment in a similar way. Their inclination towards innovation would determine whether they view a restrictive environment satisfactorily or not. By the same token, not all IT professionals would consider switching from paid employment to self employment when they experience job dissatisfaction. Their confidence in their competence in relation to the different aspects of the job would be a key driver that inspires them to be their own boss.

The present study provides implications for both managers and policy makers. From a managerial perspective, congruence between IT professionals’ innovative needs and organizations’ supplies of a conducive climate and incentives for innovation is important for employees’ job satisfaction. For organizations that emphasize innovation and risk-taking, they could recruit individuals who desire challenge and creativity in their work, while less innovative organizations could seek individuals of similar needs. Although this finding is not particularly new in the literature, it provides additional rationale to the influx of high-tech businesses whose founders originate mostly from existing IT organizations. For policy makers who are concerned about raising the number of individuals who are entrepreneurs, they could as past studies have ascertained focus on enhancing individuals’ self-efficacy through various educational and training programs at the work place itself. One possible approach is to focus on discontented IT employees because they represent a potential source of entrepreneurs who would consider an alternative career in self-employment. We are not advocating that policy makers should blatantly lure IT professionals into becoming entrepreneurs but given that in most organizations, some employees tend to be dissatisfied with their jobs due to poor P-E fit, this phenomenon is in a way not detrimental to the economy. With the confidence and self-belief in their competencies, these unhappy employees could be encouraged to start their own businesses.

These implications notwithstanding, there are a couple of areas that future research should consider. First, it would be interesting to replicate this study’s model in other work contexts to see if the hypothesized relationships among the variables hold true. Given that we have focused only on IT professionals, future studies could extend the breath of coverage to include other technology or non-technology driven professions. In addition, longitudinal studies that track respondents as they follow through their entrepreneurial intentions to create new ventures are needed to determine the mediating and moderating effects of job dissatisfaction and self-efficacy respectively on both individuals’ entrepreneurial intent and actual start-up.

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REFERENCES


Table 1. Effects of Exogenous and Prior Endogenous Constructs

<table>
<thead>
<tr>
<th>Effect of/on</th>
<th>ξ3, Innovation orientation</th>
<th>ξ4, Self-Efficacy</th>
<th>η1, Job Dissatisfaction</th>
<th>η2, Entrepreneurial Intention</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Direct Indirect Total</td>
<td>Direct Indirect Total</td>
<td>Direct Indirect Total</td>
<td>Direct Indirect Total Total</td>
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<tr>
<td>ξ1, Climate for Innovation</td>
<td>0.28 0.28 0.11 0.11 -0.54*** -0.54*** -0.12* -0.36*** 0.48**</td>
<td>6.03 3.66 15.66 15.66 3.70 7.92 15.19</td>
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<tr>
<td></td>
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<td>*(UR)</td>
<td>*(H1a)</td>
<td>*(UR)</td>
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<tr>
<td>ξ2, Incentives for Technical Excellence</td>
<td>0.22 0.22 0.19 0.19 -0.61*** -0.61*** -0.13* -0.33*** 0.46**</td>
<td>5.81 3.73 16.28 16.28 3.73 7.81 15.07</td>
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<tr>
<td></td>
<td>*(UR)</td>
<td>*(UR)</td>
<td>*(H1b)</td>
<td>*(UR)</td>
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<tr>
<td>ξ3, Innovation orientation</td>
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<td>0.23</td>
<td>0.23</td>
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<td>*(H3)</td>
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</table>

+ UR – Unhypothesized relationships among variables

Notes: Values in upper rows are standardized estimates; values in lower rows are t-values; ρ*<0.05; ρ**< 0.01; ρ***<0.001 (one-tailed test).
### Table 2. Results of Hierarchical Regression Predicting Job Dissatisfaction

<table>
<thead>
<tr>
<th>Variables</th>
<th>Model 1</th>
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Table 3. Results of Hierarchical Regression Predicting Entrepreneurial Intention

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* $p < .05$ (one-tailed test)
** $p < .01$ (one-tailed test)
*** $p < .001$ (one-tailed test)
† $p < .10$ (one-tailed test)