Part of the Ewing Marion Kauffman Foundation’s Emerging Scholars initiative, the Kauffman Dissertation Fellowship Program recognizes exceptional doctoral students and their universities. The annual program awards up to fifteen Dissertation Fellowship grants of $20,000 each to Ph.D., D.B.A., or other doctoral students at accredited U.S. universities to support dissertations in the area of entrepreneurship.

Since its establishment in 2002, this program has helped to launch world-class scholars into the exciting and emerging field of entrepreneurship research, thus laying a foundation for future scientific advancement. The findings generated by this effort will be translated into knowledge with immediate application for policymakers, educators, service providers, and entrepreneurs as well as high-quality academic research.

www.kauffman.org/kdfp
THE EFFECT OF NETWORK TIES AND ENTREPRENEURIAL SELF-EFFICACY
ON IMMIGRANT NEW VENTURE INTENTIONS

by

JENNIFER M. SEQUEIRA

THE UNIVERSITY OF TEXAS AT ARLINGTON

August 2004
EXECUTIVE SUMMARY

Understanding the entrepreneurial process should begin with the individual who engages in pre-startup activities, the nascent entrepreneur. The nascent entrepreneur engages in activities that are intended to lead toward a viable business start-up.

The goal of this study was to determine whether the social networks of nascent entrepreneurs play a role in the development of their entrepreneurial self-efficacy (i.e. their level of confidence in their ability to engage in activities related to starting a business) and intentions to start a business. In particular, immigrant nascent entrepreneurs were the focus of the study. Immigrants are playing a major role in the U.S. economy, however, the entrepreneurial process and the factors that influence new venture intentions in these groups are not understood. This study sought to understand this process by focusing on the role of the individual’s environment in the entrepreneurial process since the environment in which the individual is embedded has been shown to greatly influence his/her attitude and the choices made. The individual’s social network is a major part of that environment and therefore can have great influence.

Using the social network as a starting point, this study attempted to address various questions. The major research questions that were investigated are the following: 1) Do network ties influence an immigrant nascent entrepreneur’s intentions toward entrepreneurship? 2) Do network ties influence an immigrant nascent entrepreneur’s entrepreneurial self-efficacy? 3) Does entrepreneurial self-efficacy moderate or mediate the relationship between attitude, perceived behavioral control, subjective norm and new venture intentions?

To address the first research question, the constructs of planned behavior (attitude, subjective norm, and perceived behavioral control) were posed as mediating variables between network ties and new venture intentions. Attitude toward the behavior refers to the individual's
positive or negative evaluation of performing the particular behavior. Subjective norm refers to the person's perception of social pressure to perform or not perform the particular behavior (Ajzen & Fishbein, 1980). Or stated differently, subjective norm is what important people in the individual's life think about the individual performing the particular behavior. Perceived behavioral control refers to the individual's perceived level of difficulty/ease in performing the behavior, as well as the individual's perceptions about resource availability. Hypotheses were developed that tested the effect of network ties (strong ties and weak ties) on these mediating variables, as well as these variables’ effects on new venture intentions. The second research question was addressed by examining hypotheses that focused on the effect of strong and weak ties on entrepreneurial self-efficacy (ESE). Finally, the third research question was addressed by testing hypotheses that proposed the interaction of ESE with the mediating variables and new venture intentions.

Network theory, the theory of planned behavior and social cognitive theory were integrated and used as a basis for the presentation and testing of twelve hypotheses related to the aforementioned research questions. A model of these hypothesized relationships was proposed and tested using 48 immigrant and 84 non-immigrant nascent entrepreneurs.

**Summary of Findings**

There were no major differences found between immigrant nascent entrepreneurs and non-immigrant nascent entrepreneurs. The finding of no major differences however may be due to the fact that the immigrant nascent entrepreneur sample was relatively small. This result may also be due to the fact that the age at which the immigrant came to the U.S. was not taken into consideration. Therefore, those individuals who have lived in the U.S. for a long time may hold similar views and influences as those who were born in the U.S. regarding business start-up.
Another explanation may be that this research was not focused on individuals residing in an immigrant enclave, therefore, the results may differ for those individuals as they tend to be more dependent on their strong ties for support, information and resources. In addition, entrepreneurial individuals in an enclave tend to serve as strong role models and sponsors. Given that no differences were found between immigrant and non-immigrant nascent entrepreneurs, the results as discussed reflect the findings for the full sample of nascent entrepreneurs.

Hypothesis one stated that individuals whose strong ties hold positive views toward entrepreneurship will have positive attitudes toward entrepreneurship. This relationship was not supported in this study. This result is surprising in light of the research that has looked at the influence of strong ties on individuals. Researchers such as Krackhardt, (1992) and Aldrich and Martinez, (2001) suggested that strong ties are needed when planning a major change, such as a new business start-up. There is also literature that emphasizes the influence of entrepreneurial role models on nascent entrepreneurs (see Matthews & Moser, 1995; Scherer, Brodzinski & Wiebe, 1991). Given that seventy-seven percent of the individuals in this sample reported having strong ties who had owned, or currently owned, a business in their network versus 26 percent that had weak ties that had owned, or currently owned a business, this result was unexpected. Based on these findings, it appears that the individual's network ties do not have a significant influence on their attitude toward starting a business. It is possible that these individuals simply have the desire for independence, the drive to achieve, tolerance for ambiguity, or any of the other characteristics that have consistently been associated with entrepreneurs. Therefore, an internal drive may be contributing to the positive attitude of these nascent entrepreneurs toward business start-up.
Hypothesis two stated that positive attitudes toward business start-up positively influences new venture intentions. This hypothesis was supported. This result was not surprising given that past research has found strong correlations between attitude and intentions. This result indicates that if an individual holds a strong attitude toward a particular behavior, then he/she will form strong intentions to engage in that behavior. Ajzen, (1988 p. 33), stated that “intentions and actions seem to follow reasonably from attitudes” and both Ajzen, (1988) and Ajzen and Fishbein, (1980) among others have tested this relationship finding significance each time. These results fall in line with past research and are important here given that the planned behavior constructs have not been previously investigated using “true” nascent entrepreneurs.

Hypothesis three stated that perceived pressure from strong ties to engage in business start-up results in subjective norms that are positive toward business start-up. This hypothesis was strongly supported. Given that support was found for this hypothesis for all nascent entrepreneurs, it appears that this sample perceived pressure from significant others (i.e. strong ties) to conform to expectations. Again, given that the majority of the sample had strong ties that had, or currently have, experience in business start-up, these strong ties may be exerting pressure, whether actual or perceived, on the nascent entrepreneur to engage in business start-up. Although these strong ties did not contribute to a positive attitude toward business start-up, it appears that the nascent entrepreneurs in this sample perceive that a certain level of pressure is being exerted.

Hypothesis four is closely related to hypothesis three in that it tests whether the perceived pressure from strong ties increases the tendency toward new venture intentions. Specifically, it states that subjective norms positively influences new venture intentions. Weak support was
found for this hypothesis. This was an interesting finding since this relationship has been found in prior research on intentions. As Ajzen (1988 p. 117) states, "people intend to perform a behavior when they evaluate it positively and when they believe that important others think they should perform it." Therefore, if the referents of the individual think that the individual should engage in business start-up and the individual wants to comply with the referents then an intention toward business start-up will be formed and or enhanced.

Hypothesis five was strongly supported. This hypothesis stated that perceived access to resources from strong ties positively influences perceived behavioral control. The nascent entrepreneurs in this sample perceived that their strong ties would provide financial resources, information, and skills necessary for starting a business. This perception should lead the nascent entrepreneur to feel more confident (i.e. more control) in starting a new venture. Interestingly, the respondents in this sample perceived that resources would be available. But, although the perception of resource availability was there, no support was found for the relationship between perceived behavioral control and intention to start a business (hypothesis 6). This finding is contrary to prior research, in the behavioral sciences that has looked at this relationship and found support (Schifter & Ajzen, 1985). It is possible that although these individuals perceived that they would have access to resources, this perception may not have influenced their intentions because of their lack of direct control over these resources. Ajzen, (1988: 139) suggested that, "people's intentions are affected by their control beliefs." Therefore, it may be that the sample in this study did not feel that they would have control over these resources, thereby leading to a negative effect on their intentions.

Hypothesis seven stated that strong ties would positively influence entrepreneurial self-efficacy. No support was found for this relationship. Researchers have emphasized that
individuals that are in an entrepreneurial environment tend to develop knowledge and skills that enhance entrepreneurial self-efficacy (Bygrave & Minniti, 2000). Again, the majority of the respondents have a network consisting of entrepreneurial individuals. Therefore, there should have been some effect on the sample’s entrepreneurial self-efficacy due to their social environment. A possible explanation for finding no support for this hypothesis may be due to the scale that was used to measure entrepreneurial self-efficacy. This scale included items that were very specific to the skills essential to new venture creation (which it was intended to be). Therefore, many of these skills would not have been acquired via observational learning or simply being in an entrepreneurial environment as the acquiring of entrepreneurial self-efficacy has been positioned in the past. Many of these skills would only have been garnered through specific training (e.g., financial record keeping skills or preparation of financial statements).

Hypothesis eight stated that weak ties would positively influence entrepreneurial self-efficacy. No support was found for this hypothesis. This was disappointing since the conceptual literature has stressed the importance of weak ties in a social network (Granovetter, 1973). This literature emphasized that weak ties provide non-redundant information that may be of greater value (Burt, 1992) when the individual is engaging in a new activity. Based on these results, however, it appears that weak ties may not have an influence on entrepreneurial self-efficacy. Again, this may be due to the specificity of the entrepreneurial self-efficacy scale used in this study. Although weak ties may provide information, they may not provide the specific information needed to increase the confidence level of the nascent entrepreneur regarding business start-up activities. It is also possible that the skills required to begin a new business are so specific that simply having weak ties who are successful entrepreneurs is not a significant enough influence on entrepreneurial self-efficacy.
Hypothesis nine stated that strong ties more positively influence entrepreneurial self-efficacy than weak ties. This hypothesis was not supported given that hypotheses seven and eight were not supported.

Hypothesis 10 stated that entrepreneurial self-efficacy moderates the relationship between attitude and new venture intentions such that a high level of self-efficacy will strengthen the relationship between attitude and new venture intentions. This hypothesis was not supported indicating that the level of entrepreneurial self-efficacy may not matter in the relationship between attitude and intentions. Further investigation of this finding, indicated that there was a significant relationship between attitude and entrepreneurial self-efficacy, where attitude contributes to entrepreneurial self-efficacy. It appears that entrepreneurial self-efficacy may be enhanced by a positive attitude to business start-up. These findings also indicated that entrepreneurial self-efficacy had a highly significant relationship with intentions. It is possible then that entrepreneurial self-efficacy may mediate the relationship between attitude and intentions as well as have a direct effect. Therefore, for nascent entrepreneurs who hold strong attitudes toward business start-up, increased levels of entrepreneurial self-efficacy may be present. However, even without entrepreneurial self-efficacy, a positive attitude toward business start-up influences intentions.

Hypothesis 11 stated that entrepreneurial self-efficacy moderates the relationship between subjective norm and new venture intentions such that a high level of self-efficacy will strengthen the relationship between subjective norm and new venture intentions. This relationship was not supported. Further investigation of the results showed that there was not a significant relationship between subjective norm and entrepreneurial self-efficacy. This suggests that entrepreneurial self-efficacy does not serve as a mediator between subjective norm and
intentions. Based on these findings, entrepreneurial self-efficacy neither serves as a moderator nor a mediator between subjective norm and intentions. Subjective norm has a significant relationship only with intentions.

Hypothesis 12 stated that entrepreneurial self-efficacy would moderate the relationship between perceived behavioral control and new venture intentions such that a high level of self-efficacy will strengthen the relationship between perceived behavioral control and new venture intentions. This relationship was not supported. Further investigation showed that ESE did not serve as a mediator in the perceived behavioral control - intentions relationship since the relationship between perceived behavioral control and entrepreneurial self-efficacy was not significant.

As a whole, these results are promising in that they help to explain the role of a nascent entrepreneur’s social network in planned behavior, the effect of the social network on the development of entrepreneurial self-efficacy, and the effect of planned behavior on intentions toward business start-up.

**Theoretical and Practical Implications of the Study**

This study has implications for theory and practice. First, this study was designed for and focuses on those individuals who are genuinely interested in starting a business. To that extent, the nascent entrepreneurs included in the study were individuals who were actively engaged in at least two activities related to starting a business. Many were individuals seeking assistance from their local business assistance centers or other community organizations providing business start-up services. The majority of studies on entrepreneurial intentions have involved students who are contemplating starting a business upon graduation or are currently enrolled in entrepreneurship classes, but generally are not currently engaged in activities related to starting a
business (Krueger, 1993). The use of these “true” nascent entrepreneurs in this study provides valid information on the entrepreneurial processes underlying business start-up.

Nascent entrepreneurs, entrepreneurship educators and those involved in community organizations designed to encourage entrepreneurship can benefit from the findings of this study. Understanding the entrepreneurial process and the factors that contribute to or enhance intentions toward start-up can assist those that work directly with individuals that are interested in starting a business. Since neither strong ties nor weak ties were shown to have a significant relationship with entrepreneurial self-efficacy, this concept must be increased in other ways. Entrepreneurial self-efficacy is important as shown by its highly significant relationship with intentions. The community can play a significant role here. The nascent entrepreneur may be able to enhance entrepreneurial self-efficacy through attendance at classes that focus specifically on the activities that an entrepreneur actually engages in when starting a business. Many organizations provide only very short seminars on business start-up, but these may not sufficiently increase the confidence level of the nascent entrepreneur. Some organizations do offer long term (e.g. 3-4 month) seminars that comprehensively cover each aspect of starting a business. However, these tend to be significantly more expensive than a short-term seminar, thereby limiting access for many nascent entrepreneurs. The entrepreneurship educator can also play a role in enhancing intentions and entrepreneurial self-efficacy by providing specific training in these activities in the classroom. Experiential exercises and co-op experiences in smaller businesses may lead to increased entrepreneurial self-efficacy among students.

The results of this study indicate that nascent entrepreneurs may need to devote more time to acquiring their own resources, in terms of financing, information and skills in order to feel that they have control when engaging in a start-up. The perception that others have
resources that may prove useful sometime in the future does not enhance the nascent entrepreneur's intentions.

This study addressed several questions regarding the role of network ties in planned behavior and new venture intentions. This is an uncharted area and much more work needs to be done. This study contributes to the body of knowledge in entrepreneurship by looking at true nascent entrepreneurs. In addition, this study sheds some light on the entrepreneurial process as it relates to new venture intentions of both immigrant and non-immigrant nascent entrepreneurs. The environment of the individual should be taken into consideration when investigating the factors that lead to entrepreneurship. This was a preliminary step in that direction.
REFERENCES


