

6-9-2012

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Recommended Citation

Dinger, Jenni; Conger, Michael J.; and Bustamante, Carla V. (2012) "I AM JOPLIN: COMMUNITY IDENTITY AND ENTREPRENEURSHIP AFTER NATURAL DISASTERS," *Frontiers of Entrepreneurship Research*: Vol. 32: Iss. 6, Article 3. Available at: <http://digitalknowledge.babson.edu/fer/vol32/iss6/3>

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I AM JOPLIN: COMMUNITY IDENTITY AND ENTREPRENEURSHIP AFTER NATURAL DISASTERS



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ABSTRACT

This paper explores the role that community social identity plays in an entrepreneur's decision-making process about rebuilding her business following a natural disaster. Existing literature regarding natural disasters has focused on the financial determinants at the near exclusion of social-psychological variables, leaving a gap in the literature that our empirical study aims to address. One hundred and twelve business owners from Joplin, Missouri, which was impacted by an F-5 tornado in May 2011, have been surveyed eight months after this natural disaster. The results indicate that the constructs of interdependency belief and group attractiveness have a significant relationship with the entrepreneur's decision to rebuild.

INTRODUCTION

Natural disasters are a distinctive cause of unavoidable crisis situations (Hale et al., 2005; Lagadec, 2004). The study of natural disasters and the communities they impact is not new. Scholars have studied the role of risk management systems, government funding and access to capital in a variety of crises situations (Chang, 2010; Glaeser, 2005; Runyan, 2006). Considerable attention has been given to earthquakes and hurricanes suffered in the US, notably Hurricane Katrina and the Northridge quake, but international crises have also been studied. The majority of these studies are qualitative ethnographies with little empirical support or potential for generalization. One critical aspect that has not yet been explored is the role that social identity plays in spurring entrepreneurial activity in post-disaster situations. It is almost de rigueur after a hurricane, earthquake, or flood for the media to interview the determined entrepreneur, standing in the rubble, vowing to rebuild to "...help get this town back on its feet again. We're all in this together!" But, does this sense of pride and interconnectedness actually drive the decision to rebuild or launch a new venture in the wake of a total loss? In this study we draw on social identity theory to empirically examine the extent to which an entrepreneur's view of her self as a member of the local community affects her decision to rebuild. Our study is conducted in the city of Joplin, Missouri, which suffered extensive damage in an F-5 tornado on May 22, 2011.

Social identity theory addresses the ways that an individual's self-concept is affected by the groups to which she belongs, and the significance she places on those memberships (Tajfel, 1981). For purposes of this study, the motivation to enhance the collective welfare is most important. Moreover, the individual may see her fate and that of the group entwined, especially in times of crises (Deaux, 1996; Triandis, Leung, Villareal, & Clack, 1985). In the context of natural disasters, we expect collective social identity to become more prominent for individuals in the affected community.

Our study empirically examines differences in social identity levels among entrepreneurs within the destroyed area. We hypothesize that the rebuilding process of a business after a natural disaster is not only driven by economic reasons, but that the extent to which an entrepreneur feels connected and entwined to her community may play an important role in this particular decision making process. We measure social identity of an entrepreneur by focusing on the dimensions of group attractiveness and interdependency beliefs. Our overarching proposition is that entrepreneurs with a stronger collective social identity are more likely to rebuild following a widespread natural disaster.

Our analysis proceeds as follows. First, we provide an overview of existing literature on the topics of natural disasters and social identity, followed by a description of the research methods employed, and a discussion of our findings. Finally, we offer the contributions of our findings on entrepreneurship research in a post-disaster context, as well as areas for future research.

THEORETICAL FOUNDATION

Natural Disasters

The study of the aftermath and recovery of natural disasters is not new. There is a sizeable literature, primarily qualitative ethnographies, focused on barriers to small business recovery following earthquakes, tornadoes, hurricanes, floods and droughts (Alesch, Holly, Mittler, & Nagy, 2001; Boettke et al., 2007; Chamlee-Wright & Storr, 2010; Moore et al., 2004; Simms & Robinson, 2005; Sugiyanto & Resosudarmo, 2011; Tierney, 1997; Yoshida & Deyle, 2005). While it has been found that populations will return to pre-disaster levels within 10 years of a disaster event, the initial economic boom enjoyed during the reconstruction period (typically 3-4 years) will eventually settle at a level 10% below pre-disaster levels (Chang, 2010). At a more granular level, lack of cash flow and limited access to capital are leading barriers to reinvestment following a natural disaster (Alesch et al., 2001; Runyan, 2006).

Notably absent from this literature are contributions of social-psychological factors to the individual entrepreneur's decision-making process. We suggest that social identity theory may offer a new and useful perspective to examine these factors and their effect on entrepreneurial action and outcomes.

Social Identity

Identity is emerging as an important perspective for understanding entrepreneurial intention and action (Cardon, Wincent, Singh, & Drnovsek, 2009; Farmer, Yao, & Kung-Mcintyre, 2011; Fauchart & Gruber, 2011; Hoang & Gimeno, 2010; C. Murnieks & Mosakowski, 2007; C. Y. Murnieks, Mosakowski, & Cardon, 2012; Navis & Glynn, 2011; Shepherd & Haynie, 2009). The literature views entrepreneurial action as a means of expressing the entrepreneur's self-concept. For example, Fauchart and Gruber (2011) found that key decisions of entrepreneurs in the sports-related equipment industry were shaped by the entrepreneurs' social identities; those based on their identification with a particular social group. They discovered that some entrepreneurs – those with a “communitarian” identity – were primarily motivated by positive views about, and feelings of interdependency with, the community of sports enthusiasts who used their products. The current study extends the use of social identity theory as a lens for examining the ways in

which entrepreneurs' views about the attractiveness of their community and the degree to which they and the community are interdependent affect their decisions whether to restart a business after a considerable damage or destruction.

As was mentioned previously, group membership plays a significant role in how an individual views herself (Tajfel, 1981). The individual seeks to verify her social identities, comparing herself to the prototypical member of the relevant social group (Hogg & Abrams, 1988). Social Identity has been related to individual behavior, self-evaluation and motivation (D. Abrams & Hogg, 1990; Brewer & Gardner, 1996; Tajfel, 1978). When collective identities are activated, the most prominent features of self-concept become those that are shared with the reference group, regardless of whether strong interpersonal ties exist between individual members (Brewer, 1991). In the presence of a strong community identity, the pursuit of collective good may even be sought at the expense of individual gains (Brewer & Kramer, 1986; Caporael, Dawes, Orbell, & Van de Kragt, 1989; Triandis et al., 1985). Moreover, the individual may see her fate and that of the group as entwined, especially in times of crises (Deaux, 1996; Triandis et al., 1985).

In the context of natural disasters, collective social identity is expected to become more prominent, especially for those individuals with stronger ties in the affected community. Verification of an individual's social identities through strengthened commitments to a social group – in this case, the affected community – reduces feelings of uncertainty (Hogg, 2006; Hogg & Mullin, 1999) and enhances feelings of belongingness and self-worth (Burke & Stets, 2009; 2000). Furthermore, while role identities are verified based on what the individual does (i.e. role-specific behaviors), social identities are verified based on who the individual is (i.e. a legitimate member of the group) (Cast & Burke, 2002). For this reason, verifying social identities may be especially important in the wake of a devastating natural disaster, when the individual finds it impossible to enact important role identities such as the entrepreneur or business owner role and at the same time, feels solidarity with her friends and neighbors. In the context of natural disasters, we expect that a collective social identity will become important for entrepreneurs when making decisions about reopening their businesses.

In a meta-analysis of empirical studies of social identity, Jackson and Smith (1999) identified four important dimensions of social identity: perception of the intergroup context, in-group attraction, interdependency beliefs and depersonalization.

Perception of Intergroup Context. This dimension focuses on the tension between inclusion and distinctiveness that an individual feels, particularly through intergroup comparisons (Deaux, 1996). Based on early field observations of our sampling frame, potential respondents were not actively comparing themselves to another community's members after the tornado. Because the members of our target population had already made the decision to start a business in the Joplin community and our focus was on a generally high-level affiliation, we determined that intergroup comparison was less important in the post-disaster context. Based on early field observations of our sampling frame, potential respondents were not actively comparing to another community after the storm.

Depersonalization. This attribute is often associated with self-categorization theory (Turner, Hogg, Oakes, Reicher, & Wetherell, 1987), and deals with the tension of being a unique individual versus an interchangeable exemplar of the group. In extreme cases, group members would be

perfect substitutes for one another. Again, in this particular post-disaster context, there was little indication that this tension existed, or that community members were actively balancing their individuality with group identification.

Attraction to the In-Group. This attribute represents the primary way in which a person evaluates the group(s) of which she is a member (Jackson & Smith, 1999) and is the most consistently used in social identity studies. The attractiveness is essentially defined as how positively the person views the group; this assessment includes how satisfied or happy they are to be a member of it. The level of attraction towards a group is evaluated as a function of two determinants: (a) the extent to which an individual's particular needs are satisfied by the group, and (b) the strength or urgency of these needs (Cartwright & Zander, 1953). Because a natural disaster forces community members to break with routines, addressing new situations here and now generate instances for satisfying one's needs through cooperation and social interaction with a group members that also belong to the affected community (Johannisson & Olaison, 2007). Trying to make sense by loosening coupling (Weick, 1976) becomes normal practice, people become aware of who is around them, opening themselves to receive and provide help. In face of a natural disaster, disconnectedness from the rest of the world, and a sense of uncertainty, increase the ties among members of the affected community. Furthermore, experiencing need and cooperation enhances the perceptions of attachment to the community. These perceptions may drive the decision making process of an entrepreneur when thinking about reopening her business. Reopening a destroyed business may not be only driven by economic reasons, but also by a spirit of loyalty and support towards the affected community that derives from the extent to which the entrepreneur feels attracted to her community.

Hypothesis 1: Entrepreneurs with a stronger belief in the attractiveness of community membership will be more likely to rebuild their businesses after a natural disaster.

Interdependency Beliefs. This attribute gets at the intertwined fate of the group and its members. Perceiving that others belong to the same group or social category is not enough to generate interdependence (Ashmore, Deaux, & McLaughlin-Volpe, 2004). It is also required an awareness of a common fate. This common fate means that the future of the group is essentially the future of the member. The member becomes aware of it when she is treated as a group member, meaning that her outcomes and those of the group are similar despite the existence of individual differences (Gurin & Townsend, 1986). In the case of Joplin, the societal vulnerability generated by the tornado may increase the feelings of interdependence when, for example, the news all over the world talked about the catastrophe that affected the lives of all the inhabitants of Joplin. Perceptions of interdependency beliefs may cause a group member to forgo her own welfare or benefit for that of the broader group (Triandis et al., 1985). Being treated as members of a group (Joplin business community) enhances the perception of common fate; this may have influenced their decision making process about rebuilding after the tornado.

Hypothesis 2: Entrepreneurs with a stronger belief in the interdependency of themselves and the community will be more likely to rebuild their businesses after a natural disaster.

METHODS

Our study empirically examines the differences in the levels of social identity among a group of entrepreneurs who suffered damage or loss of their businesses after a tornado. We measure social

identity by focusing on the attributes of community attractiveness (whether being linked to the Joplin's community is desirable for a local entrepreneur) and interdependency beliefs (the extent to which the entrepreneur views her fate as linked with that of Joplin). Our sample is the entrepreneurial business community of Joplin, MO, for which we will measure both personal and professional aspects of life. We aim to assess an entrepreneur's perceptions, emotions and behaviors related to their communal identities. Our overarching proposition is that those entrepreneurs with a stronger collective Social Identity are more likely to rebuild following a widespread natural disaster.

Sample. We administered an online and paper survey to approximately 650 small and medium-sized business owners in the disaster-impacted community of Joplin, MO. The target sample was driven by the path of the storm but captured the diversity of industries (healthcare, auto, retail, food service, technology service) and the size range typical of the community. The respondents were identified through publically-available databases such as yellow page directories, and through a partnership with the Joplin Area Chamber of Commerce (JaCC). Consistent with the business population as a whole, the vast majority of our respondents were brick and mortar with some home-based and some franchisees. We received 112 responses, 93 of which were complete. Respondent businesses in the sample endured varying degrees of damage from the storm, ranging from very little to complete destruction. Our sample (n=112) represents approximately 17.2% of businesses in storm path and approximately 6.2% of total business population (prior to the storm).

Survey Design. We designed a survey instrument that consisted of 20 Likert-type questions on a 1 to 5 scale. The 5-point scale questions were predominantly measuring attitudes and behaviors towards collective identity. These items were supplemented with multiple choice and open-ended questions. The instrument also included questions to control for other factors related to a post-loss restart decision-making process, such as government assistance, prior health of the business, access to capital, insurance claims, loss of personal residence, etc. Basic information about the entrepreneur and the business (size, age, industry, etc.) was also collected. to control for natural variation in the sample.

The 20 items included this study were refined based on the results of a 40 item pilot study in three non-impacted entrepreneurial communities similar in size and culture to Joplin. We used factor analysis and an expert panel to guide our decisions in selecting and refining questions. As social identity has not been quantitatively measured in this context previously, we relied heavily on the general scales of social identity mentioned above.

Data Collection. Repeated communication with potential respondents occurred from February 2012 through March 2012, and included email, awareness postcard, paper survey with postage-paid return envelope and JaCC digital newsletter. A high-level purpose statement, team member contact information, and link to the online survey was included in all messaging, encouraging electronic completion. This was in large part due to our strong relationships with key players in Rotary Clubs and/or Chambers of Commerce. Communication to potential respondents underscored the principal author's close personal ties to the community to garner trust in the process.

Measures. The dependent variable for each of our hypotheses is the decision to rebuild and is measured by asking their current status of the business, basically whether they are operating

(same location or new), they are in the rebuild process, or they have decided not to rebuild (exited market, sold, etc.). Therefore, the rebuild dependent variable could also be described as “restart” or “reinvest.” The independent variables were averaged indexes based on a combination of twenty Likert-type items addressing the social identity constructs of group attractiveness and interdependency beliefs. The control items included prior health of business, family member involvement in firm, if personal home was also destroyed, if church was destroyed or damaged, Chamber of Commerce membership status, and firm age.

Analysis & Results

An exploratory factor analysis was run for the twenty items aimed at measuring group attractiveness and interdependency belief. Results of the factor analysis are reported in Appendix 1. Results indicated two factors with eigenvalues exceeding the threshold of 1.0. The first factor included six items ($\alpha = .8741$) and measures group attractiveness. Items in this category asked questions such as “I often tell people the benefits of living in Joplin” and “Being a member of the Joplin community is very important to how I define myself.” The second factor, which measured interdependency beliefs, included three items ($\alpha = .8120$). It included questions such as “The Joplin business community is close-knit” and “Prior to the tornado, economic development initiatives (by City of Joplin, Joplin Area Chamber of Commerce, etc.) made a real difference in the success of my business.”

Logistic regression models were used to test each of our hypotheses. Results are reported in Appendix 2. The first model, used the Group Attractiveness Index (average of responses from Factor 1 items) as the independent variable, and firm age, insurance payout, whether home was destroyed, and Chamber membership status as control variables. Our results show a significant relationship between the individual entrepreneur’s level of group attractiveness and the decision to rebuild following the disaster ($p=.035^*$). The second model, used the Interdependency Belief Index (average of responses from Factor 2 items) as the independent variable and the same set of control variables listed above. In this case, our results show a significant relationship between the individual entrepreneur’s level of interdependency belief and the decision to rebuild following the disaster ($p=.032$). Thus, both hypotheses are supported. None of our control variables were significant in our models. It is particularly interesting that insurance payout did not have a significant effect. This is in contrast to existing literature on business recovery, which lists interruptions to cash flow as a leading barrier to rebuild (Runyan, 2006).

Limitations

The results of our study show promise for future research on the effects of social identity on entrepreneurship in general, and particularly in the wake of natural disasters. Like all studies, ours is subject to important limitations. First, although our sample is likely a reasonable representation of the entire population of Joplin businesses prior to the storm, it may not accurately represent people who chose to move away from the area after the disaster. We did contact as many of these business owners as possible, but this group is certainly less well represented (11%) in our sample. Second, due to the cross-sectional nature and the timing of our study (approximately 8 months after the storm), our results may suffer from endogeneity. It could be that the decision to restart their business caused an increase in feelings of interdependency with and attraction to the community, or that both were caused by some unobserved variable not considered in our study.

To address these issues, future studies should be longitudinal, beginning within a few weeks of the disaster event and measuring both identity and intention to rebuild at regular intervals in the year(s) following. Future studies should include a larger percentage of the total population of businesses and more successful methods to follow up with people who move away from the local community should be employed. Finally, a more comprehensive battery of control measures should be collected over the course of future longitudinal studies to minimize the possibility of endogeneity. What about the fact that both variables did NOT hold together in one model?

DISCUSSION AND CONCLUSION

Contributions

The study contributes to entrepreneurship and natural disaster literature, particularly to the decision making process. With previous literature focusing on the financial factors contributing to business recovery following a natural disaster, individual social-psychological factors had been slighted. While preliminary, the findings provided from our study indicate that the entrepreneur's social identity plays a role in the rebuild decision and should be considered alongside financial and other exogenous factors.

The study further contributes to entrepreneurship research as it is the first to quantitatively measure dimensions of collective social identity among individual business owners in a natural disaster context. While this study measured social identity in the context of the rebuild/restart/reinvest decision, it could likely be used at other critical points in the entrepreneurial process. Again, this serves as a supplement to the few qualitative studies, providing a more robust understanding of the entrepreneur.

From a practical standpoint, it is well established that small business development and resiliency is a strong factor in broader community development. In that vein, the findings of this study will aid the preparation and response of civic business leaders to foster a strong entrepreneurial community. City development offices and chambers of commerce, for example, could use the findings of this study to design proactive engagement programs with the purpose of driving an increased attractiveness of the community (group) and a greater interdependency belief. From this study it appears that building a strong community identity is very important for bringing a community back after a disaster. By devoting attention to these factors in advance, the rebuild rates can be improved.

Future Research

While this study is an important first step in exploring the social-psychological factors contributing to entrepreneurial rebuild, we recognize that there are many ways to improve upon and expand upon this study. First and foremost, we are continuing to collect responses from the Joplin site and are confident that this will allow for the relationships between some control variables and the rebuild decision to surface. For example, based on public records with the Joplin Area Chamber of Commerce, it is clear that chamber members rebuilt at a higher rate than those that were not chamber members at the time of the tornado.

Replication in other locations will also be a focus moving forward. By exploring the same hypotheses in other communities, we will be able to better understand the relationship between social identity and rebuilding, but also explore if the severity of the event is a moderating factor. By severity, we mean the amount of devastation in the community. Joplin, for example, suffered significant destruction in about 35% of the city. The relationship between social identity levels and the rebuild decision may be greater in a city suffering total destruction, such as Greensburg, Kansas in 2007. On the other hand, the relationship between social identity levels and the rebuild decision could be weaker in a location where only a small percentage of the population is effected. Similarly, the role of social identity in the rebuild decision may or may not be a factor in an isolated event, such as a fire destroying a single business structure.

Moving forward, it is our goal to engage with potential respondents closer to the disaster event, so that we can capture their immediate levels of social identity and their intention to rebuild. This will allow for the observation of the stability of social identity over time and understand if initial intentions materialize into action. Possibly more importantly, a repeated measure of social identity will allow the relationship between social identity and actual performance to be explored.

The disaster context may also provide opportunities for other, related research. For example, a post-disaster rebuild may also be seen as a fresh start for an experienced entrepreneur. It could be an ideal context in which to study how entrepreneurs apply experience and learning from prior experiences. If an entrepreneur had a chance at a fresh start, what, if anything would she do differently? Similarly, a widespread disaster affecting a large portion of a community's businesses could be seen as a fresh start for economic development in the area. If a community has an opportunity to rethink virtually all of its infrastructure and economic development planning and policies, how are those policy decisions made? If the typical community never recovers more than 90% of its pre-disaster economic capacity (Chang, 2010) what are the key drivers of recovery that are or are not being maximized? Why do some communities rebuild and reinvent themselves in the process while most others do not?

Sadly, natural disasters, like the tornado in Joplin, will continue to occur in the future. Businesses, communities, and lives will be lost. However, there is much that can be learned in the rebuilding processes that happen in the wake of these disasters. Entrepreneurs are a vital part of these processes. Learning how entrepreneurs commit to and engage in the recovery of their communities after a tragic disaster may help us understand how best to recover, rebuild, and heal.

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