

Entrepreneur Business Climate Perceptions: Developing a Measure and Testing a Model

K. Mark Weaver
Louisiana State University

Eric W. Liguori
Louisiana State University

George S. Vozikis
California State University, Fresno

Annually the National Federation of Independent Businesses (NFIB) conducts the National Small Business Poll (NSBP); a survey designed to gain a better understanding of small firm perceptions of their local business climate. Beginning with the NSBP and NFIB methodology, two independent samples of small Louisiana firms (N=719 and 508, respectively) were drawn. From these samples this paper presents both a refined measure and anecdotal model of business climate perceptions. Results indicate that a three-dimension 12-item measure can be used to assess local business climate. Additionally, each dimension (institutional support for entrepreneurship, public support for entrepreneurship, and business climate entrepreneurial orientation) significantly predicted overall business climate perceptions across an industry diverse sample.

INTRODUCTION

The local business climate is a topic that has snowballed in popularity over the last few years as America has been electing new leadership and battling an economic recession. It has been argued both domestically and abroad that entrepreneurship may (a) be the way out of, or (b) key in avoiding an economic recession (Kroes, 2009). The local business climate is considered to be the influential environment that surrounds firms within a given geographic area (NFIB, 2006), the conditions and circumstances of which have a profound effect upon the success or failure of small firms. Carl Schramm (2006), President & CEO of the Ewing Marion Kauffman Foundation, writes that most US job growth and new technology comes from entrepreneurial companies; and, that over half of all university graduates will start a business at some point throughout their careers. Acs (2006) posits that “Entrepreneurship is about people in their roles as identifier of opportunities and the exploiters of opportunities”. Given the sheer percentage of the population falling into Schramm’s classification, and the role of the individual described by Acs (2006), public opinions of local business climate conditions are paramount to the understanding of new venture formation and to future economic growth. This is further supported by Schramm in his book, *The Entrepreneurial Imperative*, that states entrepreneurial climate is argued to be “both a vital and distinctive” feature of America’s economy (2006).

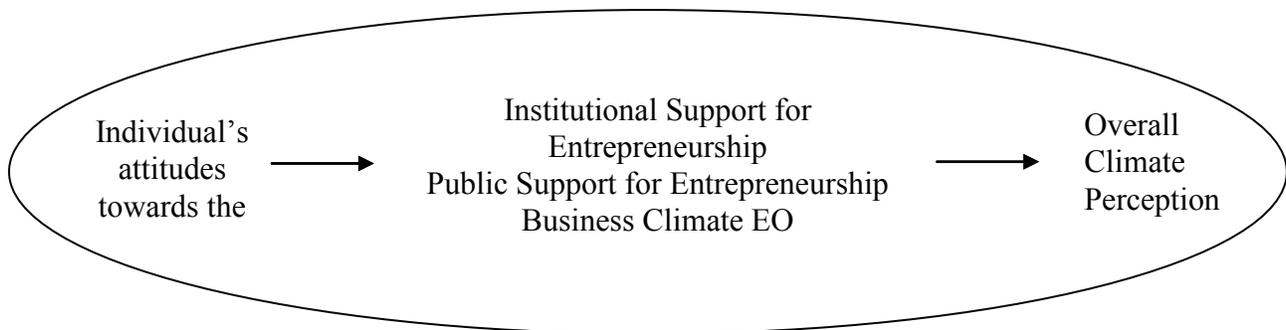
Despite the established importance of a positive local business climate, the elements that constitute ‘business climate’ remain broad, elusive and hard to define. Characteristics such as community values and attitudes, business history, recruitment efforts and legislative policies arguably are all factors influencing the local business climate. Several economic measures quantifying a ‘business climate’ within a geographic area exist, but fail to capture the more human element of climate given they are primarily based on economic indicators. This economic base negates the role of individual perceptions. Simon (1957) proposed that people are boundedly rational, that they make decisions based upon the limited cognitive ability they possess. Inherent to this notion is that individual perceptions affect subsequent behavior (e.g., Ajzen, 1998). Likewise, limited cognitive ability forces individual’s to make decisions based upon perceptions of reality that may not always (or ever) be based upon economic indicators. By identifying and understanding what factors contribute to local business climate perceptions, scholars and practitioners alike can be provided with a more solid base of information to draw from when making informed decisions.

To address this issue, the NFIB developed a list of questions to try to assess the local business climate (viz., the National Small Business Poll). The NSBP was implemented and is currently conducted annually, the results of which are published across a variety of mediums. The data gathered are routinely used to inform entrepreneurs, policy makers, educators, and the public at large, yet to date little emphasis has been placed on the underlying psychometric properties of the NSBP. This manuscript seeks to advance the literature in two ways: First, the dimensionality and psychometrics of the NSBP are assessed (Study 1); and second, a model of business climate perception formation is developed and presented (Study 2).

STUDY 1: DEVELOPMENT OF THE BUSINESS CLIMATE PERCEPTIONS SCALE (BCPS)

We began by reviewing items included in the NSBP. This poll is conducted annually by the National Federation of Independent Businesses, with the data generated used to help inform both small business owners and the various agents (lobbyists, legislators, etc.) acting on their behalf. Our goal was to establish a theoretical founding for measurement of local business climate perceptions. The result was that three distinct dimensions emerged as influential and were subsequently named institutional support for entrepreneurship, public support for entrepreneurship, and business climate entrepreneurial orientation. Figure 1 outlines our model of business climate perception formation.

**FIGURE 1
MODEL OF ENTREPRENEUR BUSINESS CLIMATE PERCEPTIONS**



Beginning with a base pool of 32 items from the National Small Business Climate Poll, our instrument design and validation was strongly informed by procedures laid out by Hair, Black, Babin, Anderson, and Tatham (2006) and Netemeyer, Bearden, and Sharma (2003). Analysis of the item pool led us to believe that a three dimensional structure exist (i.e., that three latent factors exist within the overall business climate perception construct). Representative items from each dimension are listed below.

Sample institutional support for entrepreneurship items:

- Bankers and investors in the community go out of their way to help local businesses, including people trying to start them.
- The local public school system works co-operatively with local business groups.
- Local community groups and organizations go out of their way to support local businesses, including people trying to start them.

Sample institutional support for entrepreneurship items:

- Most leaders in your community are people who own their own businesses.
- Those with successful businesses get a lot of attention and admiration within the community.
- The community has many examples of well-respected people who made a success of themselves by starting a business.

Sample institutional support for entrepreneurship items:

- The social values and culture of the community emphasize self-sufficiency, autonomy, and personal initiative.
- The social values and culture of the community emphasize creativity and innovativeness.
- The social values and culture of the community encourage entrepreneurial risk-taking.

Method

Sample & Procedures. The BCPS was designed to measure the overall business climate perceptions of entrepreneurs, and study 1 involved procedures to establish the underlying structures of the constructs and reliability of the measure, as well as its validity.

The BCPS was administered to 719 small firm owners and managers via telephone during the third quarter of 2007. This process was conducted by a third party organization specializing in public data collection and surveying. For each of the 17 initial items (listed in Appendix 1), respondents were asked to rate each item on a five point Likert-type scale with anchors 1 (strongly disagree) to 5 (strongly agree).

Respondents were randomly selected from the INFOUSA database and represented small firms within the state of Louisiana employing between 1 and 250 employees. Respondents were primarily male (62%), primarily the firms owner (68%), college educated (80%), and averaged 49.8 years of age. Respondent firm size averaged 12 full time equivalent employees and was representative of a variety of industries, including retail (20%), wholesale (4%), professional & personal services (30%), construction (8%), etc. The overall participation rate was 41.5% and calculated using the AAPOR Participation Rate 4 formula. The participation rate is reported in lieu of a response rate because initial respondent eligibility was unknown (AAPOR, 2008).

Reliability Testing. Two types of reliability tests were employed: Cronbach's alphas and exploratory factor analysis (EFA). EFA was used to extract latent factors of the overall business climate perception construct. Theoretically, items belonging to the same common underlying dimension will evidence a high correlation with each other and a low correlation with the items loading on other dimensions (Hair, et al., 2006). Thus, EFA was performed to determine whether the items within each construct loaded solely on that construct. See Appendix 2.

Appendix 2 illustrates both the CFA and Cronbach's alpha results. The Kaiser-Meyer-Olkin Measure of Sampling Adequacy = .930 and Bartlett's Test of Sphericity was significant [apx. $\chi^2 = 5499.984$; df = 78]. Five of the initial items loaded onto more than one factor, thus indicating redundancy. After an

iterative process of removing items and performing factor analyses, a solution was found that identified three underlying factors, whose items loaded solely on that factor. Cronbach's alphas are commonly used as a measure of internal consistency (i.e., the extent to which each item correlates with the rest, and how well it correlates, with the subscales total item pool). All three subscales satisfied Churchill's (1979) recommendation that alphas be greater than .70, thus confirming the reliability of the instrument.

Validity Testing. Construct validity refers to how well a measure actually captures the construct it claims to have captured. Haynes, Nelson, and Blaine (1999) noted that the ultimate goal in development of a measure is construct validity, and that it encompasses all evidence bearing on a measure. To assess construct validity we analyzed at two components: translation and convergent validity.

Translation validity is concerned with item content (Netemeyer, et al., 2003), and was assessed by an independent group of expert raters. Four experts (two senior management faculty and two doctoral candidates) were asked to categorize each of the items into one of the three proposed dimensions. Raters were also able to indicate that an item did not fit into any of the proposed dimensions. Only items resulting in a 75% consensus were retained, but after some minor clarification questions were answered by the research team the raters achieved 100% consensus. Thus, translation validity is reasonably established.

Convergent validity is the extent to which the indicators of a specific construct converge or share a high proportion of variance in common (Hair, et al., 2006). Appendix 2 listed the factor loadings of each item, all of which were greater than .5, and the majority of which were greater than .7. The square of the loading represents the amount of variation in an item that is explained by the factor, thus a factor loading of .7 indicates that the factor explains roughly half of the variation in the item. Both high factor loadings (>.5) and alpha estimates of reliability (>.7) are indicators convergence (Hair, et al., 2006). Given all factor loadings and reliability estimates satisfy these thresholds, convergent validity is reasonably established.

Having established the BCPS as both reliable and valid, next we present and test an anecdotal model of entrepreneur business climate perceptions with the BCPS.

STUDY 2: DEVELOPING A MODEL, THEORY & HYPOTHESES

Now we seek to implement and test the BCPS. Figure 1 illustrates the proposed model. To date, there has been little research done into the study of local business climates. A positive relationship between the local business climate and industrial growth has been established in the extant literature (e.g., Plaut & Pluta, 1983). Yet, previous research surrounding business climate has been narrow in scope, with most focusing on either financial / economic indicators of climate or on industry specific measures. Likewise, existing research has examined the effects of self-employment and or entrepreneurship on local economic growth (Goetz, 2006). He examines entrepreneurship as a force that influences local economic growth, links local structure to entrepreneurship, identifies local policies, and identifies factors that influence entrepreneurship. Goetz argues local distinguishing factors, that make the location unique, are becoming "increasing critical" and calls for more research in this area. He found that there is a significant effect of self-employment on local communities. Intuitively, it seems that local governing bodies would find it in the community's best interest to cultivate a positive business climate for their business owners.

The entrepreneurship social infrastructure (ESI) is defined as a format for converting social capital into organizational forms, facilitating collective action (Flora, Sharp, Flora & Newlon, 1997). This theory was developed to help better understand why some communities thrive economically while others fail. Central to this theory is social capital. Putnam defined social capital as the "features of social organization, such as networks, norms, and trust, which facilitate coordination and cooperation for mutual benefit" (Putnam, 1993b). The authors suggest that through social capital a community wide network can be built to improve the efficiency of other forms of capital, including human and financial. It is also proposed that social capital will be "converted into organizational forms that encourage collective action" (Flora et al., 1997). It is through community relations and community trust that the community will thrive. These facets of ESI are similar to local business climate. The community values and attitudes, public support,

and local business history in the community are all characteristics of a community that social networks can be built upon. These networks in turn can be utilized as social capital for economic and community growth. Communities that provide public support for local businesses are utilizing social capital to enhance their perceived business climate. Thus, we hypothesize the individual's positive perceptions of the community's public support for entrepreneurship will have a positive effect on the overall climate perception of the community.

H1: Positive perceptions of the community's public support for entrepreneurship will be positively related to the overall business climate perception.

An additional component to the ESI framework is resource mobilization. This includes how individuals and communities organize resources for the common good. Individuals, companies, and institutions donate resources to community projects and to the community in general. These resources include, but are not limited to labor, expertise, media coverage, and financial support (Flora et al., 1997). Resource mobilization is the vehicle which other forms of capital are obtained, mainly human and social (Miller & Rivera, 2005/2006). Communities rely on resource mobilization for economic development, which in turn strengthens the institutions and firms located within that community. The cooperation between different parties within the community breeds mutual trust. This mutual trust facilitates the development of actions taken by community institutions and those in the community that will develop in mutual gain (Cook & Cooper, 2003). Community institutions are considered to be the local government, universities, media, regulatory agencies, and school systems existing as members of the community. The level of support provided by community institutions (as community members) will then, in turn, influence perceptions of the local business climate. Thus, we hypothesize; an individual's positive perceptions of the community's institutional support for entrepreneurship will have a positive effect on the overall business climate perception of the community.

H2: Positive perceptions of the community's institutional support for entrepreneurship will be positively related to the overall business climate perception.

Covin and Slevin (1988, 1989) described entities (individuals, organizations, climates) as capable of possessing an entrepreneurial orientation (EO). They defined EO as having three primary dimensions: risk taking, innovation and proactiveness. Miller (1983) argued that EO is revealed through an organizations exhibition of risk taking, innovativeness and proactiveness; and that the simultaneous combination of these three traits would earn the label of "entrepreneurial" (Covin, Green, & Slevin, 2006). Hayton and Kelley (2006) argue innovations renew companies, boost their competitive advantage, stimulate growth, create new employment opportunities and create wealth. Past research has suggested a positive relationship between EO and company performance (Covin & Slevin, 1989, 1991) and that EO is critical for growth and survival of the organization (Morris & Jones, 1993). Similar to the way organizations and individuals can possess an entrepreneurial orientation, a community can also. We argue that not only is this characteristic transferrable to a community level, but that a community can then accordingly reap the benefits of growth, competitive advantage, employment opportunity, and financial gains. A community that both recognizes the need for and takes actions to create a culture that promotes innovativeness, proactiveness, risk taking and autonomy will create a climate where community EO will be recognizable and perceptions of business climate will be positive. Thus, we hypothesize an individual's positive perceptions of a business climates' entrepreneurial orientation will be positively related to the individuals' overall perception of the business climate.

H3: Positive perceptions of the community's entrepreneurial orientation will be positively related to the overall business climate perception.

Method

Sample and Procedures. The sampling methodology used in study two was identical to that of study one. The 12-item BCPS was administered to 691 small firm owners and managers via telephone during the third quarter of 2008 (roughly one year post completion of study 1) and was conducted by the same third party organization. For each of the items, respondents were asked to rate each item on a five point Likert scale with anchors 1 (strongly disagree) to 5 (strongly agree).

Respondents were again randomly selected from the INFOUSA database and represented small firms within the state of Louisiana employing between 1 and 250 employees (viz., the same stratification as was used in study 1). Respondents were primarily male (53%), primarily the firms owner (64%), college educated (84%), and averaged 44.8 years of age. Respondent firm size averaged 14 full time equivalent employees and was representative of a variety of industries, including retail (19%), wholesale (4%), professional & personal services (33%), Healthcare (11%), etc. The overall participation rate was 44% and calculated using the AAPOR Participation Rate 4 formula. Again, the participation rate is reported in lieu of response rates because initial respondent eligibility was unknown (AAPOR, 2008).

Results

Hierarchical linear regression was used to test all three hypotheses. Table 1 reports the standardized regression results. In Step 1, only control variables were entered (ownership status, gender, level of formal education, industry type, and business size). The addition of the three factors at Step 2 added significant incremental variance ($\Delta R^2 = .250$; $p < .001$). The three hypotheses tested the perceived institutional support for entrepreneurship ($\beta = .245$, $p < .001$), public support for entrepreneurship ($\beta = .104$, $p < .05$), and community entrepreneurial orientation ($\beta = .259$, $p < .001$) effects on perceptions of the overall business climate. Results indicated each of these variables do significantly have a positive effect on entrepreneur perceptions of the overall business climate, with community entrepreneurial orientation and perceived institutional support being the strongest predictors of overall business climate favorableness. Thus, hypotheses 1-3 were strongly supported.

TABLE 1
HIERARCHICAL REGRESSION ANALYSIS

| Predictor | Step 1 | Step 2 | <i>t</i> | <i>Sig.</i> |
|-------------------------------|--------|---------|----------|-------------|
| Owner | .067 | .022 | .548 | .584 |
| Female | -.059 | -.019 | -.479 | .632 |
| Education Level | .023 | -.013 | -.342 | .733 |
| Industry | -.063 | -.008 | -.216 | .829 |
| Business Size | -.133 | -.060 | -1.526 | .128 |
| Institutional Support for E | | .245*** | 4.960 | .000 |
| Public Support for E | | .104* | 2.262 | .024 |
| Community EO | | .259*** | 5.004 | .000 |
| Adjusted total R ² | .022** | .270*** | | |
| ΔR^2 | .032** | .250*** | | |

Note. N = 691. Standardized regression coefficients are shown.

E = entrepreneurship; EO = entrepreneurial orientation

*** $p < .001$ ** $p < .01$ * $p < .05$

Discussion & Managerial Implications

Local business climate perceptions have become an area of interest for researchers and practitioners alike. Increased understanding of the influential factors that help to form business climate perceptions have implications that span from academia to economic development to entrepreneurship. This study helps advance our understanding of the influential factors surrounding entrepreneur perceptions of the local business climate. Our findings suggest institutional, public, and community attributes can be used to predict overall business climate perceptions. Theoretically, these findings help to pave the way into future research and development of a fuller model of business climate antecedents and outcomes. Likewise, from a more practical standpoint, increased understanding of these situational variables can help in regional economic development efforts, offering policy makers a more solid basis upon which they can make decisions and allocate scarce community resources. Ultimately, continued research into this area will help offer insight into what makes one community more economically viable and attractive to business owners when compared to another community.

The present research first sought to develop a three dimensional index used to predict individual perceptions of the overall business climate. Dimension one of the BCPS focused around *Institutional Support for Entrepreneurship*. The significant results of this factor indicate community leaders and policy makers have control over the environmental perceptions of the business climate. As such, it would behoove these leaders to form strategic alliances among members of the local media, area colleges, universities, bankers, and investors. Dimension two of the BCPS focused around *Public Support for Entrepreneurship*. The significant results of this factor indicate that the community at large views entrepreneurial activity positively. Successful entrepreneurs are put into a position of respect within the community and thus can help drive overall business climate perceptions. Dimension three of the BCPS focused around the *Community EO*. The significant results of this factor indicate that specific communities can develop specific orientations that favor entrepreneurial activity, thus significantly driving overall business climate perceptions.

The conditions that surround a small business can have a profound impact on its survival and the growth of business in the region. These conditions include the local business climate. When business owners make decisions about their business; the local business climate is one of the factors that goes into their decision making process. For this reason it is important to study this concept and develop further develop the EBCPS for future use by researchers and practitioners seeking to understand business climate.

Limitations

A key limitation of the findings is that only businesses with a minimum employee count of one were included. Since some of the survey items were concerned with perceptions of the climate for new entrepreneurs looking to start a business it is likely that the survey responses are representative of existing business owner and manager perceptions and thus may not be completely generalizable to the population as a whole. This limitation was in part unavoidable as the funding for the surveys was allocated to survey small firms between 1 and 250 employees only.

Another limitation of the present study is the lack of geographic diversity to draw upon for generalization. Despite one strength of the present study is the diversity across many industries, it must be noted that all of these firms were based within a single U.S. state. Future research should seek to utilize samples that can improve generalizability (i.e., firms outside of Louisiana or the United States, firms larger than 250 employees, etc.).

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APPENDIX 1

Initial EBCPS Measure Items used in EFA

1. The local media does a good job of covering community business news.
2. A real community spirit exists in your area.
3. Bankers and investors in the community go out of their way to help local businesses, including people trying to start them.
4. The local public school system works co-operatively with local business groups.
5. Local governments in the area go out of their way to create a favorable business climate for local businesses, including people trying to start them.
6. The local business community works closely together.
7. Local community groups and organizations go out of their way to support local businesses, including people trying to start them.
8. Area colleges and universities go out of their way to work with local businesses, including people trying to start them.
9. The social values and culture of the community emphasize self-sufficiency, autonomy, and personal initiative.
10. Most leaders in your community are people who own their own businesses.
11. The social values and culture of the community encourage entrepreneurial risk-taking.
12. The local business community is open to newcomers.
13. Those with successful businesses get a lot of attention and admiration within the community.
14. Young people in the community are encouraged to be independent and start their own businesses.
15. The social values and culture of the community emphasize creativity and innovativeness.
16. The community has many examples of well-respected people who made a success of themselves by starting a business.
17. The social values and culture of the community stress the responsibility the individual has to manage his or her own life.

APPENDIX 2

STUDY 1 RELIABILITY TESTING RESULTS (EFA & α 's)

| Factor 1: Institutional support for entrepreneurship | Loading | M | SD |
|--|----------------|----------|-----------|
| The local media does a good job of covering community business news. | .567 | 2.83 | 1.12 |
| Bankers and investors in the community go out of their way to help local businesses, including people trying to start them. | .707 | 2.86 | 1.10 |
| Local community groups and organizations go out of their way to support local businesses, including people trying to start them. | .682 | 2.87 | 1.10 |
| Area colleges and universities go out of their way to work with local businesses, including people trying to start them. | .628 | 3.00 | 1.23 |
| The local public school system works co-operatively with local business groups. | 0.612 | 2.88 | 1.11 |
| Eigen Value | 5.733 | | |
| % variance explained | 22.74 | | |
| Cronbach's α | .799 | | |
| Factor 2: Public support for entrepreneurship | Loading | M | SD |
| Most leaders in your community are people who own their own businesses. | .675 | 2.83 | 1.12 |
| Those with successful businesses get a lot of attention and admiration within the community. | .741 | 2.73 | 1.12 |
| The community has many examples of well-respected people who made a success of themselves by starting a business. | .764 | 2.70 | 1.18 |
| Eigen Value | 1.151 | | |
| % variance explained | 19.49 | | |
| Cronbach's α | .751 | | |
| Factor 3: Community Entrepreneurial Orientation | Loading | M | SD |
| The social values and culture of the community emphasize self-sufficiency, autonomy, and personal initiative. | .59 | 2.91 | 1.13 |
| The social values and culture of the community encourage entrepreneurial risk-taking. | .729 | 2.92 | 1.05 |
| Young people in the community are encouraged to be independent and start their own businesses. | .811 | 3.06 | 1.08 |
| The social values and culture of the community emphasize creativity and innovativeness. | .632 | 2.91 | 1.09 |
| Eigen Value | 1.043 | | |
| % variance explained | 18.75 | | |
| Cronbach's α | .82 | | |
| Cumulative % variance explained | 60.98 | | |

Note: N=719. Rotation Method: Varimax with Kaiser Normalization.