Social capital and rural community self-development: Understanding community satisfaction and its impact on entrepreneurial climate and community outcomes

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Social capital and rural community self-development: Understanding community satisfaction and its impact on entrepreneurial climate and community outcomes

by

Rosita Mohd. Tajuddin

A dissertation submitted to the graduate faculty
in partial fulfillment of the requirements for the degree of

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Program of Study Committee:
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Iowa State University
Ames, Iowa
2011

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Dedication

This dissertation is dedicated to Jalal, Sarah, Ameer, and Bella, and my beloved parents who have never failed to give me moral support and send their prayers, and for always telling me that nothing is impossible as long as with a strong determination and hard work.
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ABSTRACT

Rural communities need to move beyond their market remoteness and limitations by engaging in innovation and entrepreneurship that will enhance rural economic growth and strength. Self-development efforts provide opportunities for remote regions to increase their entrepreneurship activities, strengthen the rural economy, and enhance social interaction. The critical attribute of self-development is ‘revitalization’ of the community, which affects not only the rural community but also its socioeconomic climate (Sutton, 2010). This study investigated the relationship between community self-development and local residents’ perceived satisfaction and the resulting impacts on community entrepreneurial climate and community outcomes. This study was framed by social capital theory, which emphasizes the importance of social relations in enhancing self-development activities.

A mixed methods design, using both online and mail surveys, was employed to collect the data. Preliminary analysis of research data included descriptive analysis, exploratory factor analysis (EFA), internal reliability assessment of research variables using Cronbach’s alpha coefficients, and correlation analysis. Confirmatory factor analysis (CFA) for each construct and measurement model testing was performed using Mplus statistical software. Structural model testing was conducted through steps: evaluation of the structural model and alternative model approach. Structural equation modeling (SEM) with maximum likelihood estimation was applied to estimate and test the causal structure of the proposed model.

One of the primary findings derived from this study was the identification of self-development efforts as a vital and practical development strategy for enhancing entrepreneurial activities for rural communities. Self-development efforts serve as a
strong predictor of entrepreneurial climate in rural areas and entrepreneurial activities are the source of income for rural communities. Rural communities with an enhanced entrepreneurial climate were highly associated with local residents’ perceived satisfaction with the community. Self-development programs can be regarded as a marketing strategy that can promote ‘localization’ efforts for rural communities. Enhanced community satisfaction generates strong attachment and support of local community that contributes towards rural community vitality. These results extend findings from previous research on rural community satisfaction.

Results of this study demonstrated that rural residents are very concerned with economic and quality of life attributes that result from self-development efforts. Thus, community economic developers and community leaders would be advised to focus on transforming rural communities’ economies by encouraging the creation and development of entrepreneurs and attractive business activities, with strategies that have a significant impact on communities through job generation, good salaries, and a high quality of life. Findings from this study provide important insights on the role of self-development as a viable strategy for rural communities wishing to strengthen both their social and economic environment.
CHAPTER 1. INTRODUCTION

Overview and Challenges of Rural Communities

Economic restructuring and financial crises over the past several decades have affected most rural communities of the United States (Drabenstott, 2010; Small Business Administration, 2006). Rural communities are defined as places located outside of standard metropolitan statistical areas (SMSAs) with 10,000 or fewer residents (Small Business Administration, 2006). With the recent economic downturn in the United States, many rural communities have faced massive declines resulting in job losses and migration of younger residents (Dabson, 2001; Hassebrook, 2003; Paddison & Calderwood, 2007; Walzer, 2007). The increased movement of younger people out of rural areas and a resulting aging population has caused a "brain drain" of human capital which will adversely affect the performance of rural communities (Dabson, 2001; Drabenstott, 2010). Rural communities are also frequently disadvantaged in terms of their remote geographic location and access to resources (Dabson, 2001; Ricks & Pettypool, 2008; Sharp, Agnitsch, Ryan & Flora, 2002). These factors in turn add difficulty in attracting new businesses and skilled workers to rural communities (Dabson, 2001; Drabenstott, 2006; Hassebrook, 2003; Small Business Administration, 2006). Additionally, competition from large discount retailers has created challenges for the survival and sustainability of rural small businesses (Dabson, 2001; Vias, 2004;).

Despite these challenges, the positive contributions of small businesses to their local economies are well recognized. The Small Business Administration (2006) reported that more than 99% of the total number of the overall U.S. business income comes from small businesses. A small business growth rate of 11% nationally from 1992 to 2001 demonstrates that these micro-firms play an important role in the U.S economy by increasing job opportunities and economic activity (Drabenstott, 2010; Small Business Administration, 2006). Local businesses, particularly retail businesses, are the backbone of economic activity and contribute significantly to the quality of life for rural community residents (Drabenstott, 2010; Drabenstott & Henderson, 2006; Hassebrook, 2003;
Paddison & Calderwood, 2007). With the increased emergence of, and challenges from, large retailers, small retailers need creative business strategies to remain competitive, and to establish a niche and a loyal customer base in their local community (Dabson, 2001; Hassebrook, 2003; Paddison & Calderwood, 2007).

Small retailers in rural areas may have the potential to grow and become competitive if appropriate strategies take place to revitalize rural community and enhance rural attractiveness (Drabenstott, 2003; Hassebrook, 2003; Main Street Messenger, 2009). The present study addresses a specific approach to economic development and revitalization, called self-development, the goal of which is to foster rural community economic vitality and local retail business development and sustainability.

**Strategies to Foster Rural Community Development**

Rural communities need to move beyond their market remoteness and limitations by engaging in innovation and entrepreneurship activities that may potentially foster rural economic growth (Drabenstott, 2010). Rural communities must find ways to revitalize and stimulate local economies (Drabenstott, 2003; Hassebrook, 2003; Iowa Department of Economic Development, 2006; Paddison & Calderwood, 2007). One of the ways to revitalize rural communities is by engaging in community economic development programs. Research related to community economic development initiatives is vital to finding effective strategies for rural community sustainability and small retailers’ competitiveness (Chatman, Altman, & Johnson, 2008; Crowe, 2008; Korschning & Allen, 2004).

Structural changes in agriculture and manufacturing have had a huge impact on the economies of rural communities (Paddison & Calderwood, 2007; Sharp et al., 2002). Implementing effective community development efforts may increase the development and performance of rural retail businesses, provide destination and tourism growth opportunities for small rural towns, and
Self-development: An Economic Development Strategy

Increasingly, community economic development has focused on self-development strategies to help rural areas better serve their residents and enhance business performance (Sharp et al., 2002; Small Business Administration, 2006). Self-development is concerned with activities aimed at fostering local businesses and communities and employs local resources to assist economic activities from within the community (Crowe, 2006; Flora, Green, Gale, Schmidt & Flora, 1992; Sharp et al., 2002). Self-development efforts include several approaches: revitalizing the downtown or retail sector of the community; retaining or expanding locally-owned businesses; developing small business assistance; developing a commercial center for locally owned businesses; promotion of local historic sites for tourism; and recruiting new businesses.

Community and business revitalization efforts are a form of community self-development that seeks to create environments conducive to the growth of existing local businesses and to make rural communities appealing to new market entrants (Sutton, 2010). Sutton (2010) identified such efforts as a commercial revitalization strategy that involves the interplay between commerce and community life. The retail dimension of community self-development efforts was chosen as the focus for this study since retailing is comprised of both community and business dimensions. The main street business district in small communities is often a hub of local social and economic activity, thus it is an ideal setting in which to study the impacts of community self-development efforts. Additionally, the increased participation of rural communities in economic development programs provides evidence that such approaches may nurture a rural entrepreneurial climate (Eisenger, 1988; Iowa Department of Economic Development, 2006), create new jobs, and enhance economic activity (Sharp et al., 2002).
Community self-development utilizes local resources and entails participation by and engagement of community members, community leaders, and local government agencies (Sharp et al., 2002). Many rural communities, especially those with limited options for industrial economic development (Sharp et al., 2002) have engaged in community self-development efforts to improve social conditions, physical infrastructure, economic opportunities, civic engagement, and local organizational structure (Sutton, 2010). Community self-development efforts play a major role in creating rural community vitality (Crowe, 2006; Sharp et al., 2002). The present study aims to advance understanding of the impact of self-development efforts, specifically as they relate to community and retail business revitalization activities, in rural communities.

The greatest accomplishment of community self-development is that it motivates rural communities to involve both residents and local businesses in implementing advanced planning and business practices to cater to the needs of an increasingly sophisticated marketplace (Iowa Department of Economic Development, 2006). Community self-development programs offer benefits such as increased job opportunities, economic enhancement, improvement of quality of life, and the commercialization of rural downtown businesses and communities (Crowe, 2006; Iowa Department of Economic Development, 2009; Iowa Department of Economic Development, 2006; Sharp et al., 2002). Rural communities must foster greater economic vitality in order to survive (Hassebrook, 2003; Paddison & Calderwood, 2007; Ricks & Pettypool, 2008).

The overall aim of a community self-development program is to enhance the competitiveness of local businesses and communities through employing strategies that bring about business retention, improvement, expansion and recruitment while at the same time improving the residents’ quality of life (Crowe, 2006; Iowa Department of Economic Development, 2009). Thus, such efforts can be considered a major form of economic development which aids in creating an entrepreneurial climate that may in turn foster community growth and development.
Significance of the Study

A rural community’s social structure has been found to have an impact on the success of self-development strategies (Sharp et al., 2002). Some communities exhibit outstanding contributions in all areas (e.g. economic support, social support, and infrastructure) of the community (Lestritz, Ayres, & Stone, 1992). Additionally, the general characteristics, personality, and social interactions of each community - that is, the factors that make one community differ from one another - influence the success of community development efforts (Arentze, Oppewal, & Timmermans, 2005). Social capital is a relational resource embedded in the rural community social infrastructure; it has been found to be positively associated with the success of community and regional development activities (Putnam, 2000). Research related to community economic development shows evidence that rural areas with high levels of social capital are likely to gain more advantages in terms of economic development than areas with lower levels of social capital (Woodhouse, 2006). The purpose of this study is to build on the existing body of knowledge concerning the influence of social capital on self-development efforts in rural communities.

Investigating the influence of a community's social relations and structures (i.e., social capital) on community self-development efforts acknowledges the role of social capital in, and its contribution to, rural communities. A community’s social environment influences the level of community economic development (Crowe, 2006; Sharp et al., 2002). Rural communities with a strong stock of social capital are likely to promote economic assistances to aid development activities. Communities that have good economic support tend to achieve greater success in their business performance (Miller, Besser, Gaskill, & Sapp, 2003). For a community to achieve strong economic development, all residents in the community must play an active role in supporting such programs and ensuring that the entire community will gain mutual benefits (Chatman et al., 2008; Flora et al., 1992; Sharp et al., 2002).
Economic support may come in the form of donations, fund-raising efforts, or some other assistance geared towards the implementation of the self-development program. Thus, examining social and economic changes from community self-development efforts from a social capital perspective would improve understanding of the impact of local self-development efforts on rural communities. This study's overarching goal is to empirically investigate the linkage between social capital, community self-development and local residents’ perceived satisfaction, community satisfaction outcomes and its contribution towards community economic vitality. The critical attribute of self-development, such as community and business revitalization efforts, is that they affect not only the rural community but also its socioeconomic climate (Sutton, 2010). However, implementing a self-development strategy without understanding the extent to which it can affect community satisfaction could lead to devastating outcomes for local residents and businesses. Crowe (2008) suggested that investigating the effects of a specific type of economic development on the community's social, economic and environmental conditions would be highly advantageous for community development.

Research on rural communities and businesses is, therefore, warranted in order to evaluate the best ways to structure government policies concerning the support of rural entrepreneurship and community economic development efforts (Small Business Administration, 2006). A successful community self-development program should ultimately spur business development, improve community entrepreneurial climate, and create a more satisfying environment for community residents. A healthy entrepreneurial climate is one that allows entrepreneurs and business activities in a community to perform successfully and contribute to economic vitality (Chatman et al., 2008). Several factors influence the entrepreneurial climate of a community including local government attentiveness to the needs of small businesses, community location, quality of physical infrastructure, community quality of life, business training, and availability of financial resources (Dabson, 2001).
Self development efforts such as community and business revitalization, local business assistance, historic preservation for tourism and other forms of community based projects have the potential to increase community’s quality of life and encourage entrepreneurial activities that may serve as an indicator of a rural community’s success (Chatman et al., 2008; Iowa Department of Economic Development, 2006; Sharp et al., 2002; Wang & Pfister, 2009). Promoting an entrepreneurial climate in rural communities not only helps address deep-rooted economic problems, but also enhances communities' competitiveness and attractiveness (Chatman et al., 2008; Dabson, 2001; Hassebrook, 2010; Hassebrook, 2003).

When community residents are satisfied with their community, a myriad of positive outcomes contribute to community sustainability. Each community economic development program must attempt to address social relations and collective actions without neglecting its economic contribution to the society (Chambers & McBeth, 1992). Satisfying the entire community is the key outcome of a successful economic development program (Chatman et al., 2008; Hassebrook, 2003). Aligned with the above literature, this study explores the following research questions:

1) To what extent does social capital influence rural community residents’ response regarding community self-development efforts; 2) How do community self-development efforts affect perceived local residents’ satisfaction; 3) How do self-development efforts affect a community’s entrepreneurial climate; 4) What are the potential outcomes in terms of local residents’ perceived satisfaction with the community?

**Problem Statement**

Implementing a self-development program offers several advantages for economically-challenged rural businesses and communities, such as expansion and diversification of retail offerings, enhancement of retail competitiveness, increased attractiveness of local communities, production of a more skillful and well-trained work force, and encouragement of entrepreneurial activities. This research addresses the influence of social capital on self-development efforts and the
impact of such efforts on community satisfaction outcomes is vital to ensuring rural community sustainability and growth.

This study further examines the impact of self-development economic programs on perceived community satisfaction. While many factors influence the performance of such programs, investigating the contributions of social capital to specific types of community development activities enhances our theoretical understanding and improves identification of effective support factors in relation to economic development strategies in rural areas. Though many studies have been conducted on ways to increase rural economic development, findings remain inconclusive. Whereas there is growing interest in the role of social capital in relation to economic development, much is still unknown about community self-development programs and their impact on perceived community satisfaction.

Sharp et al. (2002) found that little research to date has focused on the relationship between social community infrastructure (social capital) and the success of economic development activities, and this warrants future consideration. Community residents are assumed to be the primary agents of local change (Sutton, 2010). Obtaining information from the community perspective concerning their degree of satisfaction with community self-development efforts is likely to provide useful findings for community leaders and state agencies to improve the existing economic development initiatives.

Community self-development efforts in rural communities have shown many positive outcomes in the sense of partnerships, volunteerism and commitment to community revitalization (Main Street Messenger, 2009). However, self-development programs may be perceived differently depending on a community’s social and economic context (Sharp et al., 2002) and may also have different impacts on perceived community satisfaction. Further, this study provides evidence supporting the relationship between community self-development programs and perceived local residents' satisfaction. When community residents feel satisfied with the changes resulting from community self-development efforts, it is logical to theorize that their support of rural development
activities and their behavior towards rural retail operations and the community overall will be enhanced.

Satisfied residents are more likely to take pride in and be loyal to their community (Filkins, Allen, & Cordes, 1999; Goudy, 1977; Theodori, 2002). This in turn encourages support for and participation in community development programs (Lin, 1999) while increasing patronage at local stores (Hozier & Stem, 1985; Miller, 2001). This study also identifies potential outcomes of residents' satisfaction. An increase in satisfaction among community residents means that residents are likely to remain in the community, as they believe that the rural marketplace manages to cater to their needs and expectations (Insch & Florek, 2008). The feeling of attachment to a community exists when residents feel good about where they live, have pride in their community, and value what the community has given to them (Brehm, Eisenhauer, & Krannich, 2006). Thus, the degree of attachment influences residents’ perceptions of the community, their motivation to live in and contribute to it, and the resulting stock of community social capital (Insch & Florek, 2008).

A community with strong attachment is likely to have higher degrees of involvement toward the community (Theodori, 2001). Community support is essential for community sustainability (Miller & Besser, 2000) and is normally associated with the community’s higher levels of attachment resulting from their satisfaction with community attributes (Theordori, 2001). Since community success depends heavily upon the goodwill of the local residents, their support is important for its development, successful implementation, and overall community economic vitality (Crowe, 2006). Community support plays an important role in determining community sustainability (Kilkenny, Nalbarte, & Besser, 1999; Miller, 2001; Theordori, 2001). A lack of resident support is likely to affect a community’s response to self-development programs and other forms of community activities and this will in turn influence the economic growth of the community. A study on residents’ support for tourism development found that community support determines the success of tourism development
projects (Gursoy, Jurowski, & Uysal, 2002). This confirms the importance of community support to the development of social capital and its outcomes of community vitality and sustainability.

Satisfaction with community will potentially generate positive attitude and behavior among community members that will aid to prosper rural community. According to Kennedy Smith, a manager from the Community Land Use Economics Group, economic revitalization is one of the toughest challenges facing small and rural communities (Iowa Department of Economic Development, 2006). Employing self-development strategies that enhance community satisfaction are vital as they will strengthen the rural economy while simultaneously boosting civic pride and retaining residents in the community.

**Social Capital Theoretical Framework**

This study is framed by social capital theory (Coleman, 1988; DeFilippis, 2001; Putnam, 2000), in effort to examine the influence of community social relations on self-development programs, and residents’ satisfaction outcomes. Social capital is a type of resource that is generated by individuals or groups of individuals and that promotes cooperative action and civic connections among both residents and their institutions (Putnam, 1995). Coleman (1988) defined social capital as socio-structural resources relating to collective goods, trust, norms, cooperative actions, reciprocity and participation among both residents and their institutions. These different entities together comprise social networks of relationships that assist in promoting actions that benefit the community (Coleman, 1988).

Social capital theory is closely linked with the success of community economic development efforts (DeFilippis, 2001; Putnam, 2000). The relationship between social capital and economic development has been intensively discussed among community development practitioners and researchers (Putnam, 2000). Social capital offers opportunities for people and institutions to act (DeFilippis, 2001), and therefore is an important influence on community economic development (Coleman, 1988). The core concept of social capital theory is that a community social infrastructure
enables participants to come together to pursue shared objectives and perform actions that provide mutual gain for the community (Putnam, 1996). Communities with high social capital tend to be more responsible towards their local businesses, possess high levels of community participation, and generate positive economic outcomes (Flora, Sharp, Newlon, & Flora, 1997; Miller, 2001; Wilson & Musick, 1997).

The basic premise underlying social capital is the cooperative nature of actions and interactions (Abrahams, 1992). Without support and commitment from the community, community self-development efforts will fail. Dedication and commitment from local residents, organizations and businesses can aid in the creation of vibrant, exciting, and attractive shopping hubs for rural downtown retail districts and significantly increase community vitality (Crowe, 2006; Iowa Department of Economic Development, 2006).

**Objectives of the Study**

The overall purpose of this research is to examine the influence of social capital on community self-development efforts, and its impact on perceived community satisfaction with their community. The specific objectives of this study are as follows:

1. To examine the influence of community perceptions of social capital on community self-development efforts;
2. To understand the impact of social capital on residents' economic support of community self-development efforts;
3. To investigate the relationship between community self-development efforts and local residents’ perceived satisfaction;
4. To assess the effect of self-development efforts on rural community entrepreneurial climate;
5. To identify the potential outcomes resulting from rural residents’ satisfaction in the community.
6. To test a model of hypothesized relationships between perceived community social capital, community self-development efforts, perceived community satisfaction, and
potential satisfaction outcomes.

Summary

Self-development efforts tend to strengthen social networking and cooperation among residents, business communities and economic development practitioners (Sharp et al., 2002). An economic development activity such as community and business revitalization is thus likely to enhance community satisfaction. To ensure that community residents are satisfied, community development efforts must ensure that their development strategies maximize residents’ benefits across various forms of services (Insch & Florek, 2008).

This research attempts to provide evidence of the linkage between social capital, self-development efforts, and perceived community satisfaction. Results from this study also yield insights into the role of community self-development efforts in promoting an entrepreneurial climate. These insights may assist community development practitioners in initiating successful economic development programs to help maintain rural communities' resiliency. Community resiliency is the ability of a community to survive and thrive on economic and social challenges (Daniels, 2004). Further, findings from this research will assist in predicting community satisfaction outcomes, thus increasing rural communities' and local businesses' satisfaction with their community. Community satisfaction is likely to result in positive returns that contribute to the sustainability of the rural community as a whole.

In the next chapter the role of self-development efforts is elaborated while identifying the contribution of social capital in enhancing rural community and retail competitiveness. Several potential outcomes are discussed in relation to community satisfaction. Satisfaction outcomes measures include community attachment, community support, and community economic vitality, all of which are likely to develop when residents gain satisfaction with the community.
Definition of Terms

The following terms are used in this study as defined below.

**Community**: a group of individuals with intertwined relationships, who possess common backgrounds, engage in collective actions, share common interests and behaviors, and inhabit a common space (Landry, Arnold, & Stark, 2005).

**Community attachment**: linkages or connections strongly associated with social integration and involvement in local social relations, and which create a sense of belonging and place in members of the community (Kasarda & Janowitz, 1974).

**Community and business revitalization**: strategies employed jointly by rural communities and local development authorities to revitalize rural and small town retail sectors (Leistritz, Ayres, & Stone, 1992); focusing on strategies for enhancing community retail’s productive and consumption capacity (Sutton, 2010).

**Community economic support**: is a form of collective or individual investment to support community development. These may include fund raising, volunteering, donating time or money, or working with charity organizations (Besser & Miller, 2005).

**Community support**: a reciprocal relationship of a community that contributes to public good and is a precondition for economic development (Granovetter, 1985).

**Community vitality**: growth in both economic and social arenas derived from economic development strategies (Korsching & Allen, 2004).

**Entrepreneurial climate**: an environment that fosters entrepreneurial activities and allows entrepreneurs and their businesses to become productive, competitive, and flourish (Chatman et al., 2008).

**Perceived community satisfaction**: an emotional and cognitive perception of a particular community event, or an assessment of particular products or services that influences residents' attitude and behavior towards the community as a whole (Giese & Cote, 2002).

**Perceived community social capital**: residents’ perceptions of social resources in the community, comprised of components such as norms, trust, collective action, commitment and reciprocity, and which serve as important facilitators of community development efforts (Coleman, 1988).

**Quality of life**: community well-being in terms of social and economic opportunities (Dissart & Deller, 2000).

**Rural community**: A standard US government definition is: a community located in a county not adjacent to a standard metropolitan statistical area (SMSA), with a population less than 10,000 (Small Business Administration, 2006).

**Self-development**: an economic development strategy with the goal of enhancing the performance of rural communities and improving their economic base by providing assistance to economic activities from within the community (Crowe, 2006; Lawhead, 1995; Sharp et al., 2002).
Shopping at local stores (in-shopping): shopping within one's community (Samli, Riecken & Yavas, 1983); specifically, not shopping outside a five-mile radius of the business district area in the preceding twelve months (Herrmann & Beik, 1968).
CHAPTER 2. LITERATURE REVIEW

Introduction

Rural communities and economic development

Many rural communities are experiencing economic transition that ultimately affects their development (Korschning & Allen, 2004). These transitions have had severe impacts on rural community economic vitality; resulting in a decline in the number of local businesses in rural areas (The Associated Press, 2011) and more younger residents leaving rural areas to seek job opportunities (Drabenstott, 2010; Sharp et al., 2002). Rural areas that have non-tourism based economies (Frederick, 1993) and are disadvantaged in regard to location have encountered severe shocks resulting from economic restructuring (Besser, Recker, & Agnitsh, 2008; Hassebrook, 2003). Conversely, American counties and communities that are adjacent to metropolitan areas have had less economic problems than rural areas (Leistritz & Hamm, 1994).

Small businesses are well-known for their contributions to the local economy through job generation, sales and tax growth, and contributing the rural community’s quality of life (Markley, 2007; Macke & Markley, 2006; Small Business Administration, 2006). Small businesses are defined as independently owned firms with fewer than 500 employees (Office of Advocacy, 2007) and are comprised of a variety of micro business segments, encompassing "mom and pop" stores, home-based businesses and family businesses. These independently owned businesses provide a place for social interaction and exchange of goods among local residents (Paddison & Calderwood, 2007). The importance of local stores to rural community sustainability has driven local development agencies to initiate programs that promote entrepreneurship activities (e.g., new retailers and other businesses) and make rural areas an attractive place for people to live (Chatman et al., 2008). Self-development is a type of community-based program that provides opportunities for small rural businesses and communities to improve their economic condition. Self-development strategies include community
and business revitalization programs, historical preservation for tourism, business start-up assistance, business recruitment, and other types of community-based programs.

Supporting entrepreneurship and other local improvement activities is one of the key strategies in local development efforts and should not be ignored at the community level (Korschning & Allen, 2004). Unlike an industrial development program, community residents play an important role in ensuring that self-development programs conducted at their local level succeed for the betterment of the community (Crowe, 2006; Sharp et al., 2002). For instance, the Main Street self-development program has been effective in assisting large as well as small communities across the U.S with their commercial revitalization efforts (Wilson, 2011). One of the essential elements in the success of community-based development programs (e.g., the Main Street Revitalization Program, Community Visioning Program, Community Historic Preservation for Tourism Development) is commitment from the community (Iowa Department of Economic Development, 2006; Wilson, 2011).

Community and business revitalization, historical preservation and other types of self-development efforts are evident in the restoration and beautification of old buildings, the unique retail shops environment, and the social strength of participating communities (Wilson, 2011). Strategies initiated to enhance the competitiveness of downtown retail merchants and increase reinvestment, jobs, and quality of life in rural communities are part of community self-development efforts (Iowa Department of Economic Development, 2006; Korschning & Allen, 2004) and the specific focus of this study. Examining community residents’ satisfaction with self-development efforts is vital because this program combines participation at a community level with maximization of local resources. Community residents are viewed as key informants concerning the impact of community self-development on their community. This study intends to gain a more in-depth understanding of the relationship between community social structure (i.e., social capital), self-development efforts, and the satisfaction outcomes from these types of programs.
Business success is highly dependent on a healthy community (Kilkenny et al., 1999; Miller, Besser, Sapp, & Gaskill, 2003; Wilson, 1980). By fostering a favorable social environment, allowing interaction, and engaging residents in community economic development efforts, the community will be better positioned to attract new businesses as well as new residents. Thus, community plays an important part in the survival and growth of small retailers (Frazier, Miller, Niehm, Stoel, & Weber, 2009; Wilson, 1980).

The increased participation of small and rural communities in self-development efforts (Iowa Department of Economic Development, 2006; Main Street Messenger, 2009) provides a unique opportunity to examine communities' responses to such efforts and the impact of self-development efforts on community satisfaction. The central role played by local resources and community participation in self-development programs warrants examining the influence of social relations on such efforts. Community social relations form the basis of social capital (Putnam & Feldstein, 2003). Community satisfaction is also found to be strongly associated with high social capital (Lin, 1999; Miller et al., 2003). Hence, this study aims to determine whether the linkage between social capital and community satisfaction is supported, and to demonstrate the impact of self-development efforts on community satisfaction, and ultimately assessing potential satisfaction outcomes and overall rural vitality. Further, understanding how satisfied residents are with the community self-development efforts would help economic development specialists and community leaders become more successful in meeting the changing needs of the community in the future.

**Community self-development: A strategy to enhance rural communities**

America’s main street business districts located in small rural communities have increasingly undergone structural change (Hassebrook, 2003; Lawhead, 1995; Leistritz, Ayres, & Stone, 1992; Macke & Mackley, 2006; Small Business Administration, 2009). The unique characteristics of rural main street business districts - old historic buildings, attractive landscape, authentic offerings, and community’s identity - have encouraged local government agencies to take steps to increase the
competitiveness of local retailers (Iowa Department of Economic Development, 2006; Lawhead, 1995). Self-development activities conducted by community economic development programs include efforts to: promote agricultural diversification, revitalize the downtown retail sector of the community, retain or expand locally-owned businesses, develop a small business assistance program, develop retail centers for local small retailers, establish a financial assistance program to expand local businesses, find customers for local businesses, promote the community’s heritage and tourism, and encourage local realtors to develop housing (Crowe, 2006).

One of the challenges to community and business revitalization is the variety of independent business owners who employ different strategies and have distinct missions. Self-development strategies provide a range of opportunities for rural communities to strengthen their local economy (Korschning & Allen, 2004). All self-development activities have three common characteristics: involvement by local organizations, utilization of local resources, and control of the development outcomes (Flora et al., 1992).

Community self-development efforts also help to create a sense of place, which is strongly connected with community pride (Lawhead, 1995; Iowa Department of Economic Development, 2006; Wang & Pfister, 2009). Community pride deals with values that hold the community together and this enhances community attachment (Brehm et al., 2006). The advantages that rural communities gain from self-development efforts include a strong market environment, physical infrastructure enhancement, and sturdy market positioning (Main Street Messenger, 2009). Self-development efforts therefore enhance the community’s self-reliance (Lawhead, 1995; Wang & Pfister, 2009).

Through self-development programs, rural communities can successfully expand local resources by gaining competitive strength in their local market by implementing innovative practices. Local businesses are thus able to enhance their offerings to local communities and at the same time promote and increase the attractiveness of the community to outsiders. Promoting “localization” as a marketing strategy is essential for local businesses competitiveness and community sustainability.
(Coca-Stefaniak, Parker, & Rees, 2010). Self-development efforts have the potential to enhance rural communities’ attractiveness both at a micro (retail and services) and macro (community) levels.

**Theoretical Framework**

**Social capital**

Social capital recognizes the important role of social networks in enhancing economic development (Putnam, 2000). Social capital is a less tangible form of capital, but is a key ingredient in increasing economic health, particularly in rural areas (Woodhouse, 2006). Putnam (2000) also found that social capital differs from one place to another based on residents’ level of involvement and role in the community. Indeed, the general characteristics of a community directly influence the success of the place (Arentze, Oppewal, & Timmermans, 2005). Strong community support is essential in the success of community economic development initiatives (Coleman, 1988; Putnam, 2000; Woodhouse, 2006). Thus, social capital is suitable to be utilized in examining the impact of self-development efforts in rural communities. Communities with a high social capital are likely to engage in the sort of active cooperation that provides both social and economic supports necessary for local businesses and the community to survive and sustain themselves (Crowe, 2006; Miller et al., 2003; Sharp et al., 2002).

Social capital is a multi-dimensional construct and has been defined in the literature as comprising elements such as commitment, reciprocity, collective action, and participation. Consequently, a strong sense of belonging to, and trust in the community are vital in sustaining a community economic development process (DeFilippis, 2001; Woodhouse, 2006). The concept of social capital asserts the importance of trust, generosity, and collective action in solving social problems (Bowles & Gintis, 2002). The next section explains the dimensions of social capital that are likely to play a vital part in promoting self-development efforts in rural communities.
Commitment

One of the social features particularly relevant to social capital is community commitment (Lochner, Kawachi, & Kennedy, 1999). Community commitment is a measure of residents’ willingness to volunteer for community activities (Lochner et al., 1999) and has the potential for maximizing individual and group benefits (Flora et al., 1997). In regards to the present study, rural community self-development efforts require a strong public-private partnership and a committed organization (Flora et al., 1997). A community with low social capital will likely fail at creation of wealth in terms of economic development (Bridger & Alter, 2006). This is because the people lack a sense of responsibility for, or commitment to, community betterment. A community lacking in social capital would suffer several disadvantages. Miller (2001) pointed out that the lack of social networks, trust, participation and support are likely to increase out-of-town-shopping, in which members of the community shop somewhere else instead of supporting their local stores. Indeed, weak social ties adversely affect community trust, which in turn impedes residents' commitment to the community (Gracia & Herrero, 2004).

Community commitment is essential as it motivates residents to work together for mutual benefit thus strengthening the power of self-development programs (Woodhouse, 2006). Community self-development efforts maximize local resources that afford opportunities for people to bond and create joint accomplishments (Putnam, 1993). Without strong commitment, community development initiatives are unlikely to succeed, and this failure will further weaken the community's social environment and infrastructure. A rural community that possesses high social capital would willingly expend their resources for the benefit of the community (McAdam, 1982). Community commitment demonstrates that members are driven to work together for community benefit because they feel responsible for, and possess a greater sense of belonging to, their community (Lochner, et al., 1999).
Reciprocity

Reciprocity is another important feature of social capital, which relies on the relationship between place and social relation (Bridger & Alter, 2006). Reciprocity is a concept that reflects social exchange behavior, in which people work together and support each other for mutual gain (Homans, 1961). Past research has identified that social relations enhance reciprocal actions in rural communities that are smaller in population size and remote in location (Bridger & Alter, 2006). Goudy (1977) found that rural communities tend to have close social ties and this fosters reciprocity among community members (Miller, 2001). Homans (1961) ascertained that in order for an exchange relationship to persist, both partners need to work together for a common goal and benefit.

For rural communities to thrive, reciprocity is essential as it enhances a community’s sense of responsibility, trust, and support (Kilkenny et al., 1999). A good relationship between community residents and retailers is normally influenced by the level of reciprocity support, or the satisfaction both parties feel with each other (Miller, 2001). Businesses that strongly attach themselves to and support their local communities have demonstrated reciprocity which contributes to community vitality (Miller & Besser, 2000). For instance, community members are likely to shop more frequently at a particular retailer when the retailer provides them with offerings that meet their expectations. Reciprocity normally derives from community trust which facilitates coordination and cooperation for mutual benefit (Flora et al., 1997). Social capital tends to be low when trust and reciprocity are lacking (Flora et al., 1997).

Local businesses' survival depends on community support (Wilson, 1980), and a community’s trust is likely to derive from their positive evaluation of community attributes. Residents’ evaluations of what their community and business entities can offer them are vital in determining community success (Home, 2002; Kilkenny et al., 1999; Miller, 2001; Niehm et al., 2009). More specifically, positive evaluations of self-development efforts lead to community satisfaction based on what they perceive as the quality of, and benefits flowing from, the outcomes of
the program. Consumer satisfaction with retail change is reflected in consumers’ behavioral patterns and attitudes (Clarke, Hallsworth, Jackson, Kervenoael, del Aguila, & Kirkup, 2006). Reciprocal support and trust will thus likely influence the success of community development projects as well as that of local businesses (Kilkenny et al., 1999).

When residents of a community are satisfied, they engage with and support the community in a variety of ways (Filkins et al., 1999; Goudy, 1977). Putnam (2000) identified "community" as a group of individuals who possess high social capital and tend to have strong social networks that work together for their community advantage. Social capital not only promotes a community's economic development but helps to sustain economic growth through mutual understanding and social links between its members (Putnam, 2000). Communities with high social capital also tend to demonstrate high levels of social relations (Flora, Sharp, Flora, & Newlon, 1997) needed to promote rural community economic vitality (Korsching & Allen, 2004). Reciprocity that is embedded in community social relationships plays an important role in community development as it helps to spur both community and commerce entities (Bridger & Alter, 2006).

Collective action

Collective action is a fundamental concept in social capital (Coleman, 1988) that lubricates cooperation among residents and their local institutions (Putnam, 1996). Collective action refers to a situation in which people in a community work collaboratively and contribute resources to advance common efforts (Flora et al., 1997). Working collectively reconciles individual self-interest because people are dependent on one another for mutual gain (Bridger & Alter, 2006). In other words, building social capital constrains self-interested behavior and inspires a spirit of cooperation (Coleman, 1988).

Community self-development efforts need to be embedded in a community's social and economic organization (Flora et al., 1997). The resulting interaction helps the community's social environment to prosper (Bridger & Alter, 2006). Community social relations allow people to work
cooperatively on specific tasks and pursue common goals (Bridger & Alter, 2006; DeFilippis, 2001). Communities share decisions and perform actions for mutual interest (Coleman, 1988). Social capital promotes relationships among individuals that are likely to lead to collective actions among community members (Putnam, 1995). Putnam (1993) ascertained that communities with a high degree of social capital encourage people to act for the common good.

Collective action that derives from strong social norms not only makes a community healthy and wise but it may also increase community economic prosperity and development (Putnam, 2000). Sturtevant (2006) affirmed that collective action spurs the growth of social capital, allowing the mobilization of resources through social interaction and collaborative networks for further community development. Social capital enhances economic performance through a community’s mutual social networks and relationships and provides community betterment (Putnam, 2000).

**Participation**

Community self-development efforts encourage residents' participation and involvement (Sharp et al., 2002). Community participation may take the form of involvement with religious or charitable institutions, voluntary associations, neighborhood associations and informal social activities (Gottlieb, 1981). Participation in these community-based activities allows people to work cooperatively towards a common goal (Zimmerman, 2000). People who participate in community based activities display greater involvement with their community and enhance their sense of belonging to the place (Chavis & Wandersman, 1990). The concept of civic mindedness which is frequently discussed in social capital theory explains that people work collectively to achieve mutual benefits (Putnam, 1993). An individual’s participation in civic-based organizations reflects that the individual recognizes and take part in the larger social environment (Lin, 1986). Community development relies on civic affairs participation in which ultimately will build strong local communities (Zimmerman, 2000).
Support from community social networks enhances the likelihood of retail success and rural community sustainability (Frazier & Niehm, 2004; Korschning & Allen, 2004). For instance, to become competitive, rural retail businesses exploit social networks to access important information pertaining to their local consumer market (Frazier & Niehm, 2004). Additionally, self-development activities can only succeed if supported by a community with high social networks that involve a diversity of participations from local professionals, business persons, and community members (Sharp et al., 2002). A community with strong social capital usually exhibits community economic support which provides opportunities for rural communities to develop the proper infrastructure and amenities that will enhance the community’s quality of life (Besser et al., 2008). Communities with high social capital are more likely to participate in community based activities (Sharp et al., 2002; Wilson & Musick, 1997), possess effective local government efforts (Rice, 2001) and produce many successful businesses (Kilkenny et al., 1999; Miller et al., 2003).

Without its residents' participation and involvement, a community will not thrive; this will likely limit its economic development and weaken its entrepreneurial climate (Crowe, 2006). On the other hand, a community with strong participation by its residents is likely to promote self-development efforts which in turn will enhance the local entrepreneurial climate and economic vitality through the creation of jobs and income (Korschning & Allen, 2004). For self-development efforts to succeed, all community members - residents, businesses, government agencies and private organizations - need to participate and engage in promoting these efforts.

Collaboration between residents, businesses and economic development specialists is therefore vital to ensure that social capital is employed effectively to enable rural businesses and communities to grow and sustain themselves over time. Indeed, community participation engenders numerous opportunities for enhancing community empowerment while at the same time establishing a healthy quality of life and encouraging social relations among rural residents (Gracia & Herrero, 2004), all of which make a rural community a more attractive place to live. By examining the
influence of social capital on community self-development efforts and its impact on local residents perceived satisfaction and overall rural vitality, one may assess whether such programs enhance a rural community’s social and economic wealth.

Social and economic satisfaction both contribute to the rural community’s quality of life and simultaneously produce fundamental changes in the rural economic base (Crowe, 2006; Sharp et al., 2002). An understanding of the effect of social capital on self-development efforts would enable economic development specialists to identify community needs and expectations and choose the most effective tactics to strengthen a rural area. Past research has shown that a positive opinion of existing retail and service offerings in the local community positively influences community satisfaction (Filkins et al., 1999; Goudy, 1977). Additionally, Lin (1999) reported that a community’s life satisfaction reflected residents’ satisfaction with various life domains such as community and neighborhood environments, which are strongly influenced by social capital. Accordingly, the following research hypotheses address local residents’ perceptions of social capital, community self-development efforts, community satisfaction, and community economic vitality.

**Research Hypotheses**

**Community social capital and self-development efforts**

The emergence of the concept of social capital has shed light on the influence of social structures on community actions and collective well-being (Sharp et al., 2002). Social capital theory emphasizes the importance of cooperation, collective action and mutual aid leading to positive outcomes for the community (Putnam, 2000). The community works together to achieve a common good, and decisions are made on the basis of mutual understanding, norms and trust (Coleman, 1988; Putnam, 2000). The implementation of local community economic development efforts is generally correlated with the possession of social capital by the community, which will likely influence the success of such a program (Crowe, 2008; Flora et al., 1992; Sharp et al., 2002).
Social capital not only promotes a sense of community through social networks, norms, and trust, but also enhances and supports a community's economic growth (DeFilippis, 2001). DeFilippis (2001) stated that social capital is a central component of a community's economic development. For economic development efforts to succeed, trust, participation and commitment from local residents are vital. According to Miller et al. (2003), many of the benefits gained from economic development programs would have been difficult to realize without features of social capital. Past studies have discussed the relationship between social capital, local shop patronage and business performance (Kilkenny et al., 1999; Miller, et al., 2003; Miller, 2001). Crowe (2006) examined the relationship between social capital and the implementation of an economic development program, and found that the level of an individual type of economic development is associated with a community’s social relations (Crowe, 2006).

A community with high social capital tends to possess higher levels of self-development since the community is committed to supporting local projects; this increases the number of such development efforts undertaken and fosters their success (Crowe, 2002; Sharp et al., 2002). Sharp et al. found that communities with a high social capital make self-development projects more successful than those with low social capital. This is because a self-development project relies for its success on local resources, diverse leadership, and support, commitment, participation and trust from the community (Sharp et al., 2002). Sustainable economic development outcomes observed in both Great Plains and Corn Belt communities in the U.S have resulted from these communities' strong social organization (Flora & Flora, 2004).

Self-development efforts give residents an opportunity to participate in local efforts to improve their community's economic performance (Flora et al., 1992; Sharp et al., 2002). A community that is involved with a self-development program tends to possess a strong sense of community (Flora et al., 1992). Self-development further allows community residents to gain mutual understanding, make shared decisions, and become actively involved (Crowe, 2006), experiences
which often lead to collective efforts in other areas (Flora et al., 1992). Social capital acts as a community resource that can be expended or drawn on to realize a common good (Putnam, 2003). A community’s social capital is thus a valuable resource that can help solve a community’s problems and improve its quality of life (Besser, 2009).

The above findings suggest that a community’s social capital will likely influence the success of community self-development efforts in rural areas. Communities that possess strong social capital are more likely to promote self-development efforts which will increase the chances of such a program’s success. High social capital tends to produce greater civic mindedness, meaning that residents are more willing to work together for mutual advantages. Community social relationships enhance participation and interaction within the community, which in turn contributes to the creation of the social wealth that is vital for rural community sustainability (Marquart-Pyatt & Petrzelka, 2008).

The key ingredient in successful community economic development strategies is the degree of civic mindedness that is possessed by the community as part of their social capital (Flora et al., 1997). Woodhouse (2006) ascertained that a community with strong social capital is associated with greater levels of cooperative community activities. Social support from the community fosters entrepreneurial activity (Crowe, 2006; Filkins et al., 1999; Woodhouse, 2006) which in turn generates more income to rural community. Thus, the first hypothesis is posited:

**H1: Local residents’ perceived social capital will be associated with rural community self-development efforts.**

**Community economic support**

The influence of a community’s economic environment on the success of local economic development efforts has been widely discussed. Derived from social capital theory, local resources combined with shared social networks, norms and trust are vital in making self-development efforts viable (Flora et al., 1992; Sharp et al., 2002). The lack of either social or economic support will result
in an economic development program's failure to meet with community satisfaction. Putnam (1993) found that communities with a lower level of social capital are also more likely have a lower level of satisfaction with the local government, which will in turn contribute to a lower rate of economic growth.

Social capital also influences social networks established through relationships between community members (Lin, 1999). Indeed, social networks provide resources that are crucial for the success of community development activities and the development of social capital (Bridger & Alter, 2006). A new business is able to succeed only when they receive social support, financial assistance, and information established through exchange relationships (Butler & Hansen, 1991). A community with high social capital offers opportunities for community members to share risk and cooperate in providing economic support which will in turn contribute to the competitiveness of the community (Miller & Besser, 2005). This notion applies to the context of community economic support, in which the possession of community social capital will create a dedicated community willing to provide economic assistance by raising funds or organizing charitable events to support community improvement programs. The economic basis for network relationships is critical in enhancing the competitiveness of firms in a community (Jarillo, 1988).

A community’s economic behavior is embedded in its social structure (Flora et al., 1997; Granovetter, 1985). Granovetter ascertained that most economic behavior is embedded in social relationships. Social capital tends to increase the willingness of community members to invest in other forms of capital, such as physical and human capital (Flora et al., 1997). Social capital also increases the effectiveness of these other forms of capital by giving community residents an opportunity to engage in social projects in which decisions are shared and they work through collective action (Flora et al., 1997). Hence, a community with a positive social capital will be more likely to make investments for their members' mutual benefit. Therefore, the second hypothesis is presented:
H2a: Local residents’ perceived social capital will have an effect on the rural community’s economic support of self-development efforts.

Successful small businesses are generally associated with support from their local community (Besser & Miller, 2001; Miller & Besser, 2005; Niehm, Swinney, & Miller, 2008). Small businesses prosper only when the community gives full support to the business (Besser & Miller, 2001; Niehm et al., 2008). Economic support of a self-development program may take the form of collective or individual investment. Individuals and firms work together to realize an economic development program (Dabson, 2001; Flora et al., 1997; Main Street Messenger, 2009). For instance, an independent community development program operates on the basis of cooperation and volunteerism among community members (Crowe, 2006). Individuals and local businesses contribute money, expertise, and labor to ensure that development efforts function effectively. Residents also support their community economic structure through civic-based projects; these may include fund raising, volunteering, donating time or money, or working with charity organizations. A supportive community economic environment will reinforce community self-development efforts and make such programs successful and effective.

Economic support in the form of financial assistance is needed to assist any type of economic development effort (Crowe, 2006). Community self-development efforts in rural areas focus on the utilization of local resources (Flora et al., 1997), which allows the community's social environment to generate support for economic development programs. Support from the community not only makes community businesses competitive but also causes economic development efforts to prosper. Self-development programs require social support but they also need a positive economic environment if they are to succeed in enhancing and sustaining existing locally-owned businesses and communities (Sharp et al., 2002). This perspective indicates that community economic support is vital to economic development both for business as well as community success (Miller & Besser, 2000). Thus, the next hypothesis is:
**H2b: Local residents’ economic support will have an effect on rural community self-development efforts.**

To summarize, social capital can be defined as socially-structured resources, whose components include community commitment, reciprocity, collective action, and participation among both residents and their institutions (Coleman 1988; DeFilippis, 2001, Putnam, 1993). Social capital facilitates civic actions among individuals who belong within the community structure (Coleman, 1990). In the context of the present study this includes the community’s positive social norms that are likely to facilitate certain actions that promote the community good. Communities with positive social norms (i.e., commitment, reciprocity, collective action, participation) are more likely to possess strong civic-mindedness and enthusiasm to every form of economic development effort intended to promote the community (Putnam, 1993; Sharp et al., 2002).

**The influence of self-development efforts on local residents’ perceived satisfaction**

A social-capital theoretical perspective is used in this study to illustrate the importance of social relations and norms in the implementation of strategies for community development. Communities with a high degree of social capital tend to demonstrate higher levels of community development (Crowe, 2006). The key function of a community economic development effort is to enhance a rural community's performance via strategies that create a market niche for its businesses, thereby enhancing the community's attractiveness and quality of life (Dabson, 2001; Hassebrook, 2003), with the end goal of recruiting new businesses and enabling existing locally-owned retailers to prosper.

The purpose of community development is to build and strengthen the community business sector (Wilkinson, 1991). Community development focuses primarily on the development of community, which in its broadest sense encompasses both social and economic vitality of the community through patterns of interaction (Theodori, 2000). The development of community entails participation and efforts by local residents. Indeed, successful community development is regarded as
when community members possess shared visions and interests, and interact locally with the purpose of improving their quality of life for future community well-being (Theodori, 2000). These dynamic forms of social relations are likely to contribute to community satisfaction.

The unique characteristic of a self-development program is its goal of preserving and enhancing the heritage of communities as well as encouraging communities to adapt advanced business practices to meet the needs of a fast-changing and increasingly competitive market place (Flora et al., 1992; Sharp et al., 2002). The preservation of a rural community is closely linked to the mission of economic development specialists in promoting the quality of life (Crowe, 2006; Lawhead, 1995; Wang & Pfister, 2009). Enhancing quality of life increases the sustainability of the rural community as well as making the community economically attractive (Besser et al., 2008; Crowe, 2006). Self-development programs, like community and business revitalization, and historical preservation for tourism, play an important role in improving community quality of life (Lawhead, 1995; Wang & Pfister, 2009).

Self-development strategies strengthen the community environment by creating new and improving existing retail businesses, and by altering the community setting through changes in physical, retail, and service offerings (Lawhead, 1995; Sharp et al., 2002). The revitalization of rural areas that include commercial and community based entities will enhance community and business attractiveness and this may then lead to increased community satisfaction as well as rural market sustainability. A good community environment has a direct impact on the "goodness" of community life (Wahl & Weisman, 2003). A positive experience of community is associated with a higher quality of life; which encompasses availability of goods and services to the community (Brown, 1993). In rural areas, the downtown commercial districts can be regarded as a social hub where people meet and exchange goods and services (Runyan & Huddleston, 2006). "Downtown" refers to unplanned business districts that possess unique characteristics and add value to the community (Levy & Weitz,
Community and business revitalization is seen as a way to spur the rural retail market and also to preserve old buildings so as to create nostalgia in the community residents. Disregarding the improvement of rural community and business areas will result in failure to sustain the rural retail environment and negatively impact the entrepreneurial climate. A low entrepreneurial climate negatively affects residents' satisfaction with their community as they gain nothing from an economically weak community (Chatman et al., 2008).

Communities with attractive amenities will more likely increase community satisfaction and improve residents’ quality of life (Insch & Florek, 2008). When a community's quality of life improves, this drives community retention. Community satisfaction is a comprehensive concept made up of residents' evaluation of local services and a range of social variables that are significant predictors of whether residents will enjoy their life and retain their residence in the community (Filkins et al., 1999; Goudy, 1977; Insch & Florek, 2008). The quality of life in small towns directly determines community satisfaction (Besser et al., 2008; Goudy, 1977; Insch & Florek, 2008). Insch & Florek (2008) identified the concepts of place and quality of life as being essential to residents’ satisfaction. Residents are often influenced by what they perceive to be the quality of a place, which then shapes their expectations, motivations and attitudes about that place (Insch & Florek, 2008). When a community perceives that self-development efforts result in an improvement in the quality of their existing environment, this will likely enhance their satisfaction with the community. Hence, the next hypothesis is posed:
H3: Community self-development efforts will be associated with local residents’ perceived satisfaction with the rural community.

Social capital and community satisfaction

Besser et al. identified several factors associated with social capital, including community satisfaction, trust and participation, and the presence of social networks and social ties. Community satisfaction involves residents’ evaluations of particular local products or services (Giese & Cote, 2000) and social variables (Goudy, 1977) that influence community attitudes and behavior. Lin (1999) cited satisfaction with various life domains such as family, work, community and neighborhood environments as returns on social capital. A community with a positive economic environment and successful businesses derives from a community possessing high social capital (Flora et al., 1997; Miller et al., 2003; Woodhouse, 2006), which ultimately contributes to community satisfaction. Wilkinson (1991) asserted that meeting community needs influences community satisfaction.

The role of self-development in promoting social relations and sustaining local economies is widely acknowledged. Since self-development emphasizes utilization of local resources, it provides opportunities for community members to engage with each other and work collectively, and this reinforces community social relations (Sharp et al., 2002). When social dimensions in a community are strong, this leads to social wealth and induces satisfaction with the community. Indeed, social and environmental factors were found to be one of the most important predictors of one’s satisfaction with a community (Goudy, 1977).

Social capital emphasizes elements of social organization - such as norms, trust, and networks - that assist coordination and cooperation for mutual gain (Putnam, 1993). Rural areas are often places where social ties among community residents are strong and in which people tend to know each other very well (Miller & Besser, 2000). Successful towns are normally associated with a strong community that is able and willing to work together for mutual gain (Besser, 2009; Leistritz et al.,
1992; Sharp et al., 2002). For instance, a successful self-development program requires active cooperation and participation from all levels of the community (i.e., Main Street or economic development unit, Chamber of Commerce, local businesses, community residents).

Without strong social relationships and networks, self-development efforts will fail which will negatively impact the local rural economy. When a community possesses strong social norms and relationships, residents will want to live there and will be more easily persuaded to participate and take pride in civic affairs for the betterment of the community (Sharp et al., 2002). Lin (1999) found that social capital generates positive returns to the community in the form of physical, life, health and personal satisfaction. These forms of satisfaction are reflected by personal attributes in the residents, such as a sense of belonging, support for the community, and civic orientation. Based on the conceptual and empirical discussions from the literature, the following hypothesis is proposed:

**H4: Local residents’ perceived social capital will be associated with their sense of satisfaction with the community.**

**Self-development efforts and rural community entrepreneurial climate**

Local economic development specialists and rural community leaders have recognized the importance of an attractive and competitive business climate in transforming the local economy (Markely, 2007). A community entrepreneurial climate is when the community is enhanced with good infrastructure that allows retail activities to perform and promote new businesses to the community (Chatman et al., 2008). Several factors are found to have an impact on a community entrepreneurial climate and these include government assistance to the needs of small businesses, quality of physical infrastructure, good community quality of life, and business services (Dabson, 2001).

An economic development program is one way to encourage high-growth entrepreneurs in a community (Henderson, 2002). Small retailers are an important source of economic expansion in a community and contribute to increased growth in communities that have initiated entrepreneurial development strategies (Henderson, 2002). Innovation initiates change and enhance creativity
(Henderson, 2002). Community and business revitalization and other forms of self-development enhancement programs have been proven to yield positive outcomes for small communities in the sense of developing stronger and more successful businesses (Iowa Department of Economic Development, 2006; Lawhead, 1995; Main Street Messenger, 2009).

Wang and Pfister (2009) affirmed that the purpose of community and business revitalization is to enhance the local business area by giving the community’s economy a boost. In addition, the program helps to strengthen the existing rural retail sector through innovative strategies that sharpen the competitiveness of main street merchants (Leistritz et al., 1992; Sharp et al., 2002). Revitalizing community businesses increases job opportunities by retaining and expanding locally owned retailers (Crowe, 2006). Entrepreneurship has been found to directly promote rural vitality (Macke & Markley, 2006). Findings from research conducted by the Center for Rural Entrepreneurship found that rural regions with a higher degree of entrepreneurship achieve a higher degree of economic vitality (Macke & Markley, 2006). Entrepreneurship activities have successfully generated growth in small firms, employment, wages, and productivity (Chatman et al., 2008; Korschning & Allen, 2004; Macke & Markley, 2006). Rural communities and retailers must understand changing dynamics in the retail sector and respond by adopting innovative approaches that will sustain them and give them a competitive advantage (Niehm et al., 2009).

Self-development programs provide opportunities for remote regions to increase their entrepreneurship activities (Korschning & Allen, 2004). Most local economies, particularly in rural areas, rely heavily on self-development efforts such as community and business revitalization, historic preservation for tourism, and other enhancement programs to create and develop a vibrant entrepreneurial climate (Markley, 2007). A healthy entrepreneurial climate is achieved when the community is supported or enhanced by a well equipped infrastructure that encourages entrepreneurial activities and provides opportunities for local businesses to become productive and competitive (Korschning & Allen, 2004).
To create a positive entrepreneurial climate, local development efforts need to help small rural communities acquire the basic necessities for a high quality of life and an attractive living environment (Chatman et al., 2008). Chatman et al. suggested that community and business revitalization can encourage patronage of local stores and support and recruit new businesses which will lead to a positive entrepreneurial climate. Barkley, Henry and Lee (2006) stated that economic development agencies need to offer programs and policies that encourage innovation and entrepreneurship in non-metro areas in order for these areas to be competitive. Thus, the following hypothesis is posed:

**H5: Self-development efforts will have an impact on local residents’ perceptions of rural community entrepreneurial climate.**

**Rural community entrepreneurial climate and satisfaction**

The key to spurring a rural economy is through entrepreneur activities (Drabenstott, 2010; Macke & Markley, 2006). A strong entrepreneurial climate encourages the creation of new businesses while sustaining existing businesses (Chatman et al., 2008; Flora & Flora, 2004). Factors such as quality of life are always associated with a well-equipped infrastructure that increases community satisfaction with the place (Insch & Florek, 2008). Quality of life plays a major role in potential resident’s choice of where to live (Nzaku & Bukenya, 2004). Morris and Buller (2003) found that increasingly, potential residents’ interest in a community has focused on the quality and importance of local products. Localization is an emerging concept that emphasizes promoting local businesses as a key to rural community sustainability and competitiveness (Coca-Stefaniak et al., 2010). The significance of localization is that it offers opportunities for local rural development efforts to promote their marketplaces through entrepreneurial activities (Paddison & Calderwood, 2007).

The aim of economic development programs is to enhance the competitiveness of small independently-owned retailers and at the same time raising residents’ quality of life (Lawhead, 1995). The recent economic downturn has encouraged rural communities to expand their economic resources
through entrepreneurial activities. Entrepreneurial activities generate economic wealth that provides the capability for a rural community’s growth and sustainability (Chatman et al., 2008; Coca-Stefaniak et al., 2010). Communities with a strong entrepreneurial climate are able to provide economic opportunities to their local residents and this influences residents' level of satisfaction with their community. A well-equipped infrastructure, including the availability of business services and resources, will help to promote community’s quality of life and this will positively lead to community satisfaction with the place (Chatman et al., 2008).

Ngaku & Bukenya (2004) found that increased economic activity in a community is closely linked with its residents' quality of life. The decline of the rural retail sector has negatively affected people’s willingness to live in rural towns: they feel that such locations will not offer a good lifestyle or sufficient economic opportunities or a strong entrepreneurial climate (Dabson, 2001; Leistritz et al., 1992; Paddison & Calderwood, 2007). The loss of key retail businesses and the rise in business closures due to economic downturns have led to out-shopping (i.e., residents choosing to shop outside of their local community) and a decrease in jobs for local residents (Crowe, 2006; Leistritz et al., 1992; Sharp et al., 2002). When economic opportunities are low, residents of rural communities tend to migrate which erodes the client base for rural businesses, particularly in downtown commerce districts (Hassebrook, 2003; Leistritz et al., 1992; Paddison & Calderwood, 2007). According to Dabson (2001), migration by younger residents could be reduced by providing or improving the types of economic opportunities and social necessities that appeal to this age segment. Therefore, rural areas need to actively engage in entrepreneurial activities as a way to improve their economic condition and at the same time will help to generate employment opportunities to rural residents, particularly to the younger residents in the community.

The complex dynamics of the rural environment make it necessary for locally owned businesses to implement competitive business strategies and offer quality infrastructure (Megicks, 2007). Small businesses that are flexible in adapting to change are better able to seize opportunities to
outperform their competitors (Chatman et al., 2008). When locally-owned businesses implement competitive strategies, this can enhance a community's economic sustainability while at the same time offering a higher quality of life to community residents (Fiore, Niehm, Oh, Jeong, & Hausafus, 2007). Further, a rural community with a strong entrepreneurial climate is more likely to initiate innovations that promote employment and income growth (Barkley, Henry, & Lee, 2006). As residents gain benefits from the community, this will likely influence their attitude and enhance their satisfaction with their community (Theodori, 2000).

Hence, a positive entrepreneurial climate will likely contribute to residents' satisfaction with the community (Chatman et al., 2008; Filkins et al., 1999). Goudy (1977) asserted that a community’s evaluation of the quality of available products and services affects community satisfaction. An individual's experiences with a particular place will affect their level of satisfaction; experiences related to the community can influence whether they choose to remain in the community or search for alternatives (Insch & Florek, 2008). Community self-development efforts not only enhance the rural community's entrepreneurial climate but also offer an improved quality of life to its residents. Community environment plays a meaningful role in creating a good life that contributes to community satisfaction (Insch & Florek, 2008). Communities that possess strong and vibrant entrepreneurial climates will more likely increase residents' satisfaction in the community. Hence, the next hypothesis is generated:

**H6: Rural community entrepreneurial climate will be related to local residents’ perceived satisfaction with the community.**

**Community satisfaction outcomes and community economic vitality**

The effects of community satisfaction have been extensively addressed in previous research (Filkins et al., 1999; Goudy, 1977; Kilkenny et al., 1999; Wang & Pfister, 2009). The role of the community is to cater to the needs and desires of its residents as this will engender a positive perception of life quality for residents, and therefore of the place in which they live (La Gory, 1982).
When people have a positive feeling about their place of residence in terms of quality of life, their attachment and support to the place tends to increase (Insch & Klorek, 2008). According to Rubinstein and Parmelee (1992), what encourages people to attach to particular places is primarily their personal experience of that place, supported by the higher social relationships extant in the community.

Positive economic and social community outcomes are likely to result when the community perceives satisfaction. The economic outcomes reflect the economic behavior of the community and improve community prosperity (Miller, 2001; Miller et al., 2003). The social outcomes are linked to the community’s feeling of and commitment to place, due to the benefits they receive from the place. Strong community attachment contributes to high social capital that enhances community support (Filkins et al., 1999). Community attachment includes sentimental and emotional attachments to local communities based on social ties as well as ties to the physical environment (Brehm et al., 2006). Hence, a strong community and commercial environment positively influences community social outcomes which in turn contribute to overall community economic vitality.

**Community socio-economic outcomes**

**Community attachment**

Community attachment is defined as a set of systematic linkages or connections that are strongly associated with social integration and with involvement in local social relations that engender a sense of place among members of the community (Kasarda & Janowitz, 1974). Past research found that residents' satisfaction with their community predicts their level of community attachment (Filkins et al., 1999; Goudy, 1990; Miller, 2001). Community attachment is usually linked with the community’s sense of place (Brehm et al., 2006). Early studies identified community attachment as a positive cognition in which people possess a feeling of belonging to a place that gives meaning to their lives (Brehm et al., 2006). Community attachment is associated with an individual's length of residence in a place as well as his or her position in the social structure (Kasarda &
Factors such as social, natural, and physical environment have been recognized as influencing people's feelings about a place (Brehm et al., 2006).

Previous studies also found that changes to the community that involve its physical attributes influence the sense of place among community residents (Brehm et al., 2006). Community economic development plays a significant role in attracting people to reside in a community as well as providing an enhanced quality of life to those already living there (Woodhouse, 2006). A community’s positive experience with what has been done in their community is associated with community satisfaction (Brown, 1993). Schumaker and Taylor (1983) identified a strong positive correlation between satisfaction and attachment. Community members who are pleased with the development of their community will be motivated to continue living in the community and support the community’s well being (Insch & Klorek, 2008; Nzaku & Bukenya, 2004).

Conversely, community attachment may become weak if the local community fails to satisfy its members' immediate needs and expectations (Theodori, 2001). This eventually encourages local residents to leave the community as they have little trust in the capability of their community to meet their aspirations (Kasarda & Janowitz, 1974; Theodori, 2001). Consequently, community satisfaction or evaluation of place attributes is significant indicators of attachment (St.John, Austin, & Baba, 1986). To enhance residents’ well being and effect their satisfaction with the place, a community needs to ensure that the community's retail and service sectors can provide them with goods and services that maximize overall community benefits (Insch & Klorek, 2008). In other words, a community needs to ensure that service providers (i.e., retailers, government institutions, private agencies) are able to offer products that meet the community’s expectations as well as satisfying their social and economic needs. Community satisfaction has the potential to enhance residents' attachment to the community by creating a favorable place for them to live, work and shop. Thus, the next hypothesis to be tested is:
H7: Community satisfaction is related to local residents’ attachment to the rural community.

The relationship between community attachment and support

Past research has examined several dimensions of community attachment that include community attitudes and sentiments (Goudy, 1990; Kasarda & Janowitz, 1974), local social bonds (Kasarda & Janowitz, 1974), interest in community (Theodori & Luloff, 2000), and community involvement (Stinner, Loon, Chung, & Byun, 1990). These dimensions reflect community support that will lead to positive behavior and attitudes toward the community. When a community's members possess strong local sentiment regarding the community, they are likely to engage in positive behaviors that support the community (Filkins et al., 1999). Community attachment has a significant influence on reciprocity (Miller, 2001) and is derived from strong local social bonds that create a feeling of local sentiment towards the community (Goudy, 1990).

Reciprocity refers to the situation in which an individual is involved in a relationship of exchange of goods that reconcile self-interest (Putnam, 2000). Coleman (1988) ascertained that when individuals have a strong attachment to their community, this encourages them to work together for the common good of the community. Community residents with a higher degree of community attachment are more likely to give support to their community betterment (Haines, Hurlbert, & Beggs, 1996), suggesting a win-win situation (DeFillippis, 2001). In this sense, community attachment is likely to lead to behaviors such as in-shopping, support of local stores, and support for local community programs. These behaviors further contribute to rural community vitality.

Residents with a sense of sentiment about their community (Goudy, 1990) will take an active interest in the well-being of that community (Woodhouse, 2006). Social norms such as reciprocity that are embedded in local social bonds will encourage people to purchase and utilize local goods and services as well as providing support for community betterment purposes (Granovetter, 1985; Woodhouse, 2006). Etzioni (1988) asserted that when community members possess some degree of attachment to their community, this will influence their support of the community. These behaviors
that result from the feeling of belonging to the community offer obvious advantages for community sustainability.

**Community support**

Community support can be described as an element of social capital (Coleman, 1988) that promotes community values and influences the success of a community (Miller & Besser, 2000). Stendard (1992) found that community support of a business is an important determinant of a business success. Community support can be expressed by various forms of social and economic behaviors. Kilkenny et al. (1999) ascertained that community support of a business is demonstrated by being a loyal customer and promote local businesses. Residents with higher degree of attachment purchase more locally than those with less community attachment (Cowell & Green, 1994). When a community's members possess strong local sentiment regarding the community, they are likely to engage in positive behaviors that support the community and contribute to social betterment (Filkins et al., 1999; Miller & Besser, 2000).

A satisfied community may be more likely to develop community attachment and participate extensively in local institutions (Kasarda & Janowitz, 1974; Kim & Stoel, 2010). Miller (2001) found that consumers’ attachment to their community influences their exchange behavior in the marketplace in the sense of inshopping as well as reciprocal support. Reciprocal support demonstrates community commitment to the community (Kilkenny et al., 1999). Community residents who possess a strong attachment to their community are likely to demonstrate their supportive actions towards their community by informing their friends, neighbors and other community members about the business present in their community (Home, 2002; Hozier & Stem, 1985; Kilkenny et al., 1999; Kim & Stoel, 2010). Gracia and Herrero (2004) found that people with strong networks of close ties are important predictors of support and involvement in the community.

Several positive outcomes may result when businesses receive support from their community. Community support may take the form of word of mouth marketing (Kilkenny et al., 1999), support
for community based activities, and contributions to charity (Putnam, 2000). Support of local retailers by local residents contributes to retailers’ profitability, performance and sustainability (Kilkenny et al., 1999). Effective economic development strategies that help retailers meet community expectations are likely to contribute to social benefits and values (Wang & Pfister, 2009) which in turn will stimulate positive behavior from the community. Community attachment outcomes are likely to lead to various forms of community support such as shop at local stores, and support of local community. These positive behaviors demonstrate community support which is vital for rural community’s growth and sustainability. These factors lead to the following hypothesis:

**H8: Community attachment will be related to local residents’ support of the rural community.**

**Economic vitality of rural communities**

Economic vitality describes the degree to which a community is able to establish and sustain a competitive advantage through engaging in entrepreneurial activities (Korschning & Allen, 2004). Entrepreneurship is a workable self-development strategy for rural areas with declining economies (Korschning & Allen, 2004). Community self-development efforts generate economic growth and vitality (Flora et al., 1997). Community economic vitality focuses on making a community’s environment a dynamic place for business recruitment, growth, and success. The key objective of community self-development efforts is to create community changes that will spur rural economic vitality. Hence, a community's economic vitality can be defined by its ability to adapt to rapid change and sustain itself over time (Shaffer & Summers, 1989). Community economic vitality also represents the willingness of residents to implement changes, support of local businesses and communities financially, and the ways in which local resources can be used to generate economic wealth and prosperity.

Community support is vital for community success. Besser and Miller (2001) ascertained that community aids business success that contributes to community economic vitality. Community’s active participation and support for business and other community based programs affect
community’s performance (Korsching & Allen, 2004). Even though studies focusing on the influence of community support on community economic vitality are few and far between, previous research on community social responsibility has demonstrated that community support influence community success (Kilkenny et al., 1999; Niehm et al., 2008). This implies a significant role of community support in determining community economic vitality.

Factors influencing community success depend on the degree of community support and on community-related attributes of both business and community entities. Community support demonstrates the existence of strong social networks which play a central role in economic development success (Korsching & Allen, 2004). Niehm et al. reported that residents' commitment to their community enhances community support and this gives advantages for community sustainability. Indeed, community exchange behaviors, both social (i.e., supporting local community) and economic (i.e., shop at local stores), are beneficial to a community's economic vitality. Community support serves as an important resource for community sustainability (Miller, 2001).

Small businesses rely on community support to sustain and enhance their performance (Kilkenny et al., 1999). Community support helps to spur rural business vitality, foster entrepreneurship, and sustain existing businesses (Niehm et al., 2008). Business operators are likely to survive and prosper when they operate their businesses in a healthy and supportive community environment (Miller, Besser, & Malshe, 2007). Community support also motivates rural communities to engage in new business approaches to become competitive. Therefore, community support plays an essential role in community success and vitality as it not only generates economic wealth but at the same time business members obtain benefits through the vitality of the local economy (Miller et al., 2007). Miller et al. ascertained that cooperation is the key for firm’s competitive advantage that will contribute to community economic vitality. Thus, the final hypothesis is posited:
H9: Community support of local businesses is related to perceived economic vitality of the rural community.

Summary

Rural economic performance can be enhanced by entrepreneurial activities that encourage communities to create, expand and recruit new businesses (Agarwal, Rahman & Errington, 2009). Collaboration and networking between local and state agencies, institutions and communities will ensure that the economic development policy is successful in creating sustainable rural communities (Agarwal et al., 2009). Communities that possess a high social capital may positively influence the success of economic development efforts (Sharp et. al., 2002).

A rural community can gain sustainable economic viability by ensuring its business community is flexible in adapting to change and by implementing innovative strategies as a result of community self-development efforts. Community satisfaction is likely to promote self-development strategies for revitalizing rural areas which in turn will influence rural community behaviors and attitude towards the community. Community satisfaction offers other potential benefits for rural community sustainability such as attachment and support, which contribute to community vitality. Self-development efforts tend to contribute to the community's possession of high social capital and produce diverse outcomes that are advantageous to rural community prosperity and livelihood.

Many rural communities have initiated self-development efforts with the intention to enhance local economic endeavors (Crowe, 2006; Flora et al., 1997; Sharp et al., 2002). Social capital serves as a principle engine of economic development. However, it can only be realized when a community possesses strong social relations as well as economic support while simultaneously ensuring that the effort is able to meet community satisfaction. Community satisfaction is generally associated with a community that possesses strong social capital. Satisfaction entails an evaluative judgment of community aspirations and achievements (Theodori, 2000). A community’s perceived satisfaction will lead to a myriad of positive returns that eventually contribute to rural economic wealth.
The present study shows that local residents’ perceptions of social capital are likely to have a positive effect on self-development efforts in rural communities. This study attempts to obtain insight into the association between self-development and community perceived satisfaction, and further, investigate satisfaction outcomes as a result of residents’ satisfaction with their community. Several positive returns may be realized when residents perceive satisfaction with their community. For this study, a diverse group of rural communities which have engaged in self-development programs was selected as the context for examining residents’ satisfaction with self-development efforts. A research model illustrating hypothesized construct relationships is shown in Figure 1.
Figure 1. Research Model: The influence of social capital on self-development efforts and its impact on community perceived satisfaction, community entrepreneurial climate, satisfaction outcomes and community economic vitality.
CHAPTER 3. METHODOLOGY

This chapter explains the steps and procedures that were utilized for community and sample selection, instrument development and measures, data collection procedure, and means of data analysis. A quantitative research method was utilized to examine the influence of social capital on community self-development efforts and the extent to which these initiatives contribute in meeting rural residents’ expectation and satisfaction. The relationship between self-development efforts and entrepreneurial climate was also examined. Potential satisfaction outcomes (e.g., community attachment, community support, and economic vitality) were investigated as major dependent variables of the proposed model.

Procedures

Purposive sampling

Since this study focused on the impact of rural community self-development efforts from community and business enhancement programs, a purposive sampling method was used to select the target communities. Purposive sampling is a representative approach in which the deliberate selection of groups of respondents is expected to yield a sample with the same characteristics as the whole (Kerlinger, 1986). The participants for this study were drawn from rural communities that had engaged in community self-development efforts for varied lengths of time, specifically community and business development initiatives. Selecting rural communities that were involved in such efforts was thought to be representative of rural communities as a whole with respect to demographic, social, economic, and geographic characteristics (Kerlinger, 1986). In accordance with the purposive sampling approach, prior information regarding the population units was used for selecting the sample (Rao, 2000). In applying this approach to the present study, it was necessary to select rural resident participants who had been exposed to self-development programs in their community over time. Thus, the purposive selection process allowed for identification of participants that had essential experience needed to complete the survey questions.
Selection of rural communities

Participants selected for this study came from rural communities that had previously participated in community self-development efforts. "Self-development efforts" refer to community enhancement programs aimed at fostering local businesses and communities, and which employ local resources to provide assistance to economic development programs from within the community (Crowe, 2006). These efforts included community and business revitalization, historic/cultural site preservation and promotion, local businesses retention and expansion, and small business assistance program initiatives; such efforts enhance the competitiveness of rural communities which ultimately improves local residents’ quality of life. Since community self-development efforts rely on local resources, rural communities that demonstrate both high and low levels of involvement in community self-development efforts were selected as benchmarks. The longevity and economic success of each community was thought to be directly related to the involvement and participation of local groups, government officials, community leaders and citizens, all of whom share the responsibility of promoting the community’s quality of life.

To gain a wide distribution of rural communities and to minimize selection bias (Kerlinger, 1986), information used in selecting potential communities was obtained from both primary and secondary resources. Primary resources refer to economic development specialists with records and knowledge of community development status and participation.

To identify rural communities for this study, the researcher contacted several steering committees that have been involved in community economic development programs. These included the State Economic Development Program Coordinator and the Director of the Extension, Community Economic Development from Iowa State University. These resources were helpful in determining each rural community’s involvement in economic development programs and verifying the status of the community participation in such development efforts. The secondary resource was a statistical report on the economic impact of programs in Main Street Iowa commercial districts (Iowa
Department of Economic Development, 2010). This report outlined the economic impact on specific Main Street communities as related to the success and longevity of community self-development efforts.

Based on these sources, a list of rural Iowa communities was drawn up. Iowa rural areas were selected for this study because of their rapid growth in economic development programs, particularly in self-development (Iowa Department of Economic Development, 2006). Over 50 large and small communities have joined forces to enhance the economic, physical, and social environment of their areas (Iowa Department of Economic Development, 2006). Rural communities were randomly selected from a potential list of 15 rural communities based on the following criteria: 1) length of the time involved in community self-development efforts and 2) population of less than 10,000. Three years participation in community self-development efforts was used as the benchmark in selecting the sample. A timeline of three years was used because it is long enough to allow for economic development activities to be observed, yet it is recent enough that community residents can more accurately recall events and changes. Previous studies that sampled rural community leaders used a minimum length of three years of involvement in community development programs (e.g. Crowe, 2006; Flora, et al., 1997; Sharp, 2001).

To accommodate the target sample size, seven rural Iowa communities were identified, with four communities having more than three years involvement in community self-development efforts and three communities having three years or less. Two hundred local residents were randomly selected from each of the seven communities for a total of 1,400 responses for the online survey. Local residents were randomly selected from a national population sample provided by Survey Sampling International (SSI). Rural Iowa communities with more than three years involvement in self-development efforts were Elkader (EK), Greenfield (GF), Charles City (CC), and Sac City (SC). Meanwhile, communities with three years or less were Belle Plaine (BP), Mount Vernon (MV), and
Woodbine (WB). Table 3.1 summarizes rural community self-development efforts based on the types of activities and years of involvement, ranging from three (3) to twenty (20) years.

Another criterion for community selection was rural as opposed to urban location. Rural communities are defined as follows: location in a county outside of a metropolitan statistical area (MSA), population of less than 10,000, and a traditional downtown shopping area with several independent retailers (Lee, Kim, & Gahring, 2008; Miller, 2001). For this study, only rural communities meeting the above criteria were considered for participation. To obtain an even geographic distribution of rural communities, the communities were selected such that their locations covered north, south, east and west sections of Iowa.

Table 3.1. Self-Development Efforts: Rural Iowa Communities

<table>
<thead>
<tr>
<th>Communities</th>
<th>Community Code</th>
<th>Types of programs</th>
<th>Length of involvement in self development programming</th>
</tr>
</thead>
<tbody>
<tr>
<td>Charles City</td>
<td>CC</td>
<td>Community and business revitalization Streetscape and landscape Building rehabilitation/Historic preservation</td>
<td>15 years</td>
</tr>
<tr>
<td>Elkader</td>
<td>EK</td>
<td>Community and business revitalization Streetscape and landscape Building rehabilitation/Historic preservation</td>
<td>20 years</td>
</tr>
<tr>
<td>Greenfield</td>
<td>GF</td>
<td>Community and business revitalization Streetscape and landscape Building rehabilitation/Historic preservation</td>
<td>16 years</td>
</tr>
<tr>
<td>Sac City</td>
<td>SC</td>
<td>Community and business revitalization Streetscape and landscape Downtown rehabilitation/Historic Preservation</td>
<td>15 years</td>
</tr>
<tr>
<td>Belle Plaine</td>
<td>BP</td>
<td>Community and business revitalization Streetscape and landscape</td>
<td>3 years</td>
</tr>
<tr>
<td>Mount Vernon</td>
<td>MV</td>
<td>Community and business revitalization Streetscape and landscape</td>
<td>3 years</td>
</tr>
<tr>
<td>Woodbine</td>
<td>WB</td>
<td>Community and business revitalization Streetscape and landscape</td>
<td>3 years</td>
</tr>
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Source: Iowa Department of Economic Development (2010); Iowa Department of Economic Development (2006).
Sample

Selection of participants

Simple random sampling was used to select participants for the online survey. In simple random sampling, the probability for any one subject to appear in the sample are known and equal (Malhotra, 2007; Rao, 2000). Survey Sampling International (SSI), an international company that provides sampling solutions for survey research (surveysampling.com, 2011) was contacted to provide the lists of residents in the identified rural communities. Postcards were mailed to randomly selected participants inviting them to participate in the online survey. Participants were briefly informed about the objective of the study and asked to read the informed consent document before agreeing to take the survey. Participants who had a computer with internet access could take the survey from home. Participants without their own computer and internet access took the survey by using a computer at their local public library.

To create awareness of the importance of the survey to rural communities, promotional flyers were mailed to steering committees in each selected community. The steering committees in each participating community were comprised of an ISU Extension Officer, the City Clerk, a Community Economic Development Specialist, and the Director of Community Development. The reason for using steering committees was to enlist their assistance in inviting more residents to complete the online survey. The online survey was announced to the general public through flyers posted throughout the community. If interested in participating, community residents could go to the on-line survey link as directed on the flyer. To encourage response, participants were invited to enter a drawing for a fifty-dollar Visa debit card. Three participants were randomly selected among all participating communities to receive the reward at the conclusion of the survey.

Questionnaire pretests

Since some sections of the instrument required the development of new measures, the questionnaire was pretested with a representative group of local residents. The pretest questionnaire
was distributed to approximately 50 local residents who were assumed to have knowledge of and perceptions about economic development efforts that had been conducted in their community. These participants were local residents who had lived in their community for at least 10 years and had experienced the impact of community self-development efforts. The purpose of a pretest was to check participants’ ability to complete the questionnaire in a timely manner, clarity of wording and instructions, logic of response pattern, and length, and to identify any items in need of revision. Participants in the pretest were asked to complete all survey questions and also to provide comments and suggestions for improving the questionnaire. The pretest also aids in establishing content validity of the instrument as the results provide guidance for improving and modifying the survey questions and format.

The pretest was conducted via a mailed survey. Participants were asked to complete the questionnaire and return it using a self-addressed stamped envelope which was provided. I pre-tested the instrument, using 44 community residents who lived in a community engaged in self-development efforts. Reliability analysis was conducted to assess the consistency of the measurement instruments. The purpose of the reliability coefficient is to demonstrate to what degree the results obtained from a measurement method are repeatable (Nunnally, 1978). Reliability for all measures, including self-developed ones, was .70 or higher. Reliabilities of .70 or higher are considered adequate and suffice for a satisfactory level of reliability (Nunnally, 1978). Several modifications were made to the instrument based on the comments from participants as well as the results of the reliability analysis.

**Data Collection**

Multiple methods were used for data collection (Creswell, 2009). A tailored design method, using both online and mail surveys was employed to collect the data (Dillman, 2000). The primary method of data collection was an online survey. This method was chosen because of the immediate feedback and the ease of reaching rural community residents. The internet population continues to grow which suggests that this approach is a plausible one for rural residents (Malhotra, 2007).
ISU Community Development Extension Program conducted a study for the Belle Plain, Iowa Community Visioning Program and they had an acceptable response rate of 47% using the online survey approach (Community Visioning Program, 2008). Given the success in the Community Visioning study, the current study opted to also employ an online survey.

The second method of data collection was a mail survey (Dillman, 2000). A mail survey was chosen as an alternative method to the online survey with the goal of increasing the response rate. Participants for the mail survey were identified and selected at random using national population sample data. Community residents were picked at random from the seven identified rural communities using the listings from a national population sample provided by the market research firm Survey Sampling International (surveysampling.com, 2011).

The survey instrument contained six parts, as described above: community social capital, community economic support, community satisfaction, community entrepreneurial climate, community attachment, community support, community economic vitality, and demographics. For tracking purposes, codes were created for the seven communities involved in the study. An Institutional Review Board (IRB) form was submitted to the Office for Responsible Research at the university prior to data collection. The selected rural community residents were contacted through the initial mailing of the questionnaire that includes a detailed cover letter explaining the importance and timeline of the study and an IRB consent form. A self-addressed return envelope with postage was included with the questionnaire and the cover letter.

For the online survey, a total of 1400 postcards were mailed to recruit rural Iowa community residents. The postcards were distributed evenly, as follows: 200 (Charles City), 200 (Greenfield), 200 (Elkader), 200 (Belle Plaine), 200 (Mount Vernon), 200 (Woodbine), and 200 (Sac City). The postcards informed recipients about the purpose of the study, provided the link for taking the survey, and gave the address of the local public library form residents who did not have
internet access at home. With adjustments for incorrect addresses and deceased persons, the solicited sample for the online survey was 1,331.

For the mailed survey, a total of 385 surveys were distributed via mail. Questionnaires were also mailed to several community leaders at selected rural communities. The purpose of mailing these questionnaires was to provide opportunities for interested participants to take the survey as well as an alternative mode to complete the questionnaire manually, specifically for participants who do not have an internet access. These questionnaires were placed at the community’s public library for two months duration. To gain an effective response, a thank you postcard was sent five to seven days after the initial questionnaire (Dillman, 2000). The purpose of this mailing is to show appreciation for responding as well as provide a reminder to participants who had not returned the questionnaire.

**Measurement Instrument**

The instrument used for this study was comprised of six sections. Section one consisted of a series of questions related to community social capital (i.e., community social environment) towards residents' actions on community self-development efforts. Four constructs of community social capital were assessed: community commitment, community reciprocity, community collective action, and community participation. These constructs were selected because they were deemed as important contributors to community social relations since they enhance and influence local residents’ action on community self-development efforts. This section had 19 items divided among the four social capital dimensions as follows: commitment (four items), reciprocity (six items), collective action (five items), and participation (four items).

The second section contained six items that assess local residents’ perceived social capital (i.e., community social environment) on community economic support in relation to community self-development efforts. A community with a strong social environment motivates community action in the form of providing financial support and assistance as well as encouraging residents to organize
charitable events to promote self-development programs in their community. A community that possesses sturdy economic support promotes community self-development programs.

Section three was divided into two sub-sections that assess local residents’ perceived satisfaction variable. The first part, with six items, examined to what extent community self-development programs have benefited rural residents and led to their satisfaction. Several types of community self-development programs (e.g., community and business revitalization, local business assistance and expansion, and historic development for tourism) have been introduced in rural communities to improve their economy and enhance residents’ quality of life. The second part consisted of twelve items that measured the relationship between local residents’ perceived social capital (i.e., community social environment) and perceived community satisfaction, and is divided into two sub-headings. The first series of questions related to perceived community satisfaction with social environment required participants to rate their level of satisfaction with the community’s social environment in terms of community cooperation, the role of community leaders, quality of life, community as a place to live, good community relations, and local government services. The second series of questions consisted of six items that assess respondents’ perceptions of several aspects of the local community, particularly in relation to local social ties and the community as an ideal place to live.

The fourth section of the questionnaire focused on local residents’ perceptions of community entrepreneurial climate. Ten items measured the relationship between community self-development efforts and community entrepreneurial climate. Community satisfaction outcomes with the community were evaluated in section five. This section was comprised of six items on community attachment, and 16 items on community support that include shopping at local stores (eight items), and support of local community (eight items). Meanwhile, four items were used to measure community economic vitality.
Demographic information was collected in section six and included: age, gender, education, years living in the community, income, employment status, community location (adjacency to a larger community upon which it relies economically), involvement in local organization, and working in the community.

The assessment items for each construct were selected from previously tested measures for social capital, community satisfaction, local shopping, support of local stores and community attachment (Besser & Miller, 2001; Goudy, 1977; Kasarda & Janowitz, 1974; Miller, 2001). Since no previous studies had measured community economic support, community self-development efforts, and community entrepreneurial climate, several scales were designed based on past studies and then used to assess the underlying construct (Chatman et al., 2008; Crowe, 2006; Miller & Besser, 2000; Miller et al., 2003). Most of the questions employed a seven-point Likert-scale with “1” indicating strongly disagree/strongly dissatisfied and “7” indicating strongly agree/strongly satisfied.

Measures

Social capital

Social capital is the principal tool of economic development. It emphasizes the importance of social norms in encouraging actions that increase community well-being. To measure social capital, this study used four constructs: community commitment, community reciprocity, community collective action, and community participation. These four dimensions of social capital play a significant role in determining the success of community self-development programs. I posited that community social capital influences community action towards community self-development efforts in which the relational resources embedded in and produced by the community spur economic development, which in turn contributes to overall community vitality.

Commitment

Community commitment is a dimension of social capital that emphasizes the spirit of togetherness and responsibility within and between the members of a community. Survey items were
modified from two preexisting reflective scales (community commitment from Goeppinger and Baglioni, 1985, and Besser and Miller, 2001; and community symbolic action from Niehm, Stoel, Frazier, & Anderson, 2008). In addition, two new questions that reflect community commitment were developed. Goeppinger and Baglioni’s (1985) study that measured community competence did not report the reliability score for their commitment scale. However, discriminant and criterion validity were assessed. Reliability of Besser and Miller’s original community commitment measures was .70. Another two items that reflect commitment were selected from Niehm et al. (2008) to measure the community commitment construct. Reliability of Niehm’s et al. original community symbolic action measures was .77. Participants were asked how strongly they agree with statements such as “The people of [MY TOWN] are willing to work together for the community”; “The people of [MY TOWN] really care about the future of this community”; “The people of [MY TOWN] volunteer for community development activities”; and “The people of [MY TOWN] are willing to contribute their energy, time and effort to help the community development project”. A 7-point Likert scale (with 1= strongly disagree, 7 = strongly agree) is used to assess the items.

**Reciprocity**

This dimension emphasizes the personal relationships that have developed among community members through interactions over a period of time. Institutional reciprocity, which is less personal in nature and refers to positive attitudes of residents toward community development efforts, is important to spur civic engagement in the community which in turn ultimately supports community self-development programs. When residents perceive that benefits and satisfaction will result from community self-development efforts, they will give their support by becoming engaged themselves in self-development programs. To achieve community satisfaction, such efforts needs to address community residents’ expectations as a whole.

Scales used to measure community reciprocity are therefore based on both interpersonal and institutional reciprocity. Six questions adapted from previous studies were used to measure
reciprocity (Glynn, 1981; Miller & Kean, 1995; Woodhouse, 2006). Two items adapted from Woodhouse (2006) that measure “support” and “trust” showed reasonable factor loadings which provide support of their validity. Glynn’s (1981) initial 60-item instrument that measures the concept of social capital reported reliabilities of .97. However, this study only used the two items from this scale that measure community reciprocity. Several questions adapted from Miller and Kean (1995) that reflected community reciprocity were also used. Reliability for these two items on Miller and Kean’s original scale were .81 (interpersonal reciprocity) and .87 (institutional reciprocity).

A 7-point Likert scale with (1 = strongly disagree, 7 = strongly agree) was used to assess the items. Examples included: “The people of [MY TOWN] are interested to know what goes on in community”, “The people of [MY TOWN] are happy to help out the community if they need a hand”; “The people of [MY TOWN] believe that what is good for their community is good for them”; “The people of [MY TOWN] support community based projects and other local economic efforts that benefit the community” and “The people of [MY TOWN] cooperate to support the local economy”.

**Collective action**

Social capital emphasizes collective action, in which a community works towards shared interests and goals through social associations. Collective action is a concept that demonstrates the idea of sharing and working together for common goals. Each member of a community is expected to provide something of value to other community members as their contribution to a collective project. In this way, collective outcomes can be optimized as every member in the society will gain mutual benefits. The collective action construct in this study is comprised of five questions adapted from previous research (Besser & Miller, 2001; Glynn, 1981). Reliability for the collective action items on Besser and Miller’s original scale was .74. Several measures for collective action dimensions adapted from Glynn (1981) who reported a reliability of .97 (60 items). Two items that reflected the concept of collective action were adapted from Niehm’s et al. (2008) community resiliency scale that showed a reliability of .77.
Participants were asked to respond on a 7-point Likert scale (1= strongly disagree, 7= strongly disagree) to statements such as: “When something needs to get done in [MY TOWN], the whole community usually gets behind it”; “Community clubs and organizations are interested in what is best for all residents” and “The people of [MY TOWN] share the same vision for our community’s future”; The people of [MY TOWN] work together to make this a vibrant community; and “The people of [MY TOWN] work together toward common goals”.

**Participation**

Participation was measured by assessing community involvement and engagement in development projects, community’s role in community associations, and community association through voluntary groups. Participation of community residents is vital to the successful implementation of community self-development efforts. Survey items were modified from preexisting scales that assess community participation. Four questions borrowed from Woodhouse (2006) showed evidence of content validity with factor loadings of .40 and above. Goeppinger and Baglioni’s (1985) study assessed the discriminant and criterion validity of the items but the scores were not reported. Reliability of Gracia and Herrero’s (2004) community participation scale was .83.

Responses on a seven-point Likert scale reflected residents’ involvement with and membership in community civic projects and associations (1= strongly disagree, 7= strongly agree). Examples of questions included: “The people of [MY TOWN] often attend local community events”; “The people of [MY TOWN] are willing to become involved with the local community and are not focused only on their own lives”; “The people of [MY TOWN] feel that they are part of a team at work” and “The people of [MY TOWN] collaborate with organizations and associations in the community to help community programs”.

**Community economic support**

Community economic support is defined as community residents’ economic behavior or attitude towards providing financial support to encourage community self-development efforts. A
A community with strong social capital is likely to have a positive attitude towards economic support. I posited that a community with strong social capital will influence the economic behavior of its residents in the sense of their willingness to participate in or initiate fund raising for civic-based activities. This type of volunteer activity helps to create economic support for community-based programs and enhances the changes of community self-development success.

Community economic support was measured using a series of self-designed measures intended to assess local residents’ perceptions of social capital on community economic support. Based on pretest results, reliability of the four items measuring community economic support was .80. Respondents are first asked their opinion of the community in relation to community economic support. Examples included: “The people of [MY TOWN] work together to financially support community self-development programs”, “The people of [MY TOWN] are generous in giving charitable donations to aid community self-development programs”, and “The people of [MY TOWN] normally organize fundraising and volunteering activities to help raise funds for community self-development programs”. Responses were given on a seven-point Likert scale (1= strongly disagree, 7= strongly agree).

Next, another series of self-developed measures were used to assess community residents’ perceptions of community economic support on self-development success. Based on pretest results, reliability of the two items measuring community development success was .74. Examples included: “Community self-development programs are not able to succeed without strong economic support from the community” and “The availability of funds helps to enhance self-development programs in the community”. Responses were given on a seven-point Likert scale (1= strongly disagree, 7= strongly agree).

Perceived community satisfaction

Community satisfaction has been extensively discussed in consumer behavior, rural sociology, small business, and marketing related research. Community satisfaction is a broad concept
that involves community response to a particular event, or evaluation of particular products or services that influence community attitude and behavior. Satisfaction also implies an evaluative judgment of achievements and aspirations. In this research, satisfaction relates to an evaluation of a community attributes influenced by self-development efforts. Several aspects of community attributes ranged from community services, development efforts and social dimensions have been identified as influencing community satisfaction, thereby enhancing the community’s quality of life (Filkins et al., 1999; Goudy, 1977; Sharp et al., 2002). These include good utilities and services, good local government, good shopping facilities, good social relationships, and good community and business infrastructure. Two sets of questions were used to measure perceived community satisfaction. The first set assessed the relationship between community self-development efforts and local residents’ perceived satisfaction while the second set focused on the association between community social capital and local residents’ perceived satisfaction.

**Community self-development efforts and local residents’ perceived satisfaction**

Community self-development programs are posited to satisfy rural community residents because of their utilization of local resources and innovative strategies that boost the retail and community environment. Community self-development efforts that meet residents' expectations engender positive returns in the form of community satisfaction. This process gives social and economic advantages to the rural community as a whole. A series of self-developed questions were used to measure the relationship between community self-development efforts and local residents’ perceived satisfaction. These items examined the extent to which community self-development efforts meet local residents’ expectations and satisfy their needs. Several common objectives of self-development efforts were used to assess residents’ satisfaction, including community attractiveness, quality of life, and downtown business improvements such as merchandise selection, store experience, and community image. These elements of community self-development efforts are
assumed to satisfy local residents’ needs and expectations. Pretest results of the instrument used in this study showed a reliability score of .81 for the six items.

Examples of the questions included: “Community self-development programs (e.g., downtown revitalization, local business assistance and expansion, and historic development for tourism) help to enhance the attractiveness of local stores in our community”, “The overall selection of merchandise offered by downtown retail stores meets the needs of customers in this community”, “Most downtown retail stores in [MY TOWN] offer quality merchandise with reasonable price”, and “Community self-development programs (e.g., downtown revitalization, local business assistance and expansion, and historic development for tourism) have succeeded in creating a new look for the community and business districts in our community”. Responses were measured on a seven-point Likert scale (1= strongly disagree, 7= strongly agree).

Community social capital and local residents’ perceived satisfaction

The next series of questions assessed the relationship between community social capital and perceived community satisfaction. A community social dimension (i.e., social capital) is showed to have greater importance on community satisfaction compared to community service based attributes (Filkins et al., 1999; Goudy, 1977; Kilkenny et al., 1999). I posited that rural communities with good social capital have greater satisfaction compared to communities that lack social capital. A series of questions regarding residents' general satisfaction with the community and social attributes of the community were used to measure community satisfaction in relation to social capital. These questions were adapted from work by Filkins et al. (1999), and Goudy (1977).

Measures of general satisfaction included: “How satisfied are you with community residents’ willingness to work together for the community?”, “How satisfied are you with the role of community leaders in supporting economic development efforts in your community?”, “How satisfied are you with the quality of life in your community?”, and “How satisfied are you with the community's relations among residents?” Measures of residents' perception of their community's social attributes
included: “The people of [MY TOWN] are friendly”, “The people of [MY TOWN] can be trusted”, “The people of [MY TOWN] support each other”, and “The people of [MY TOWN] get along well with the people living in the surrounding rural area”. Reliability measures for the items from Goudy’s community satisfaction scale range from .75 to .88 and those from Filkins et al. (1999) social attributes scale was .90. Responses for both sets of items were given on a seven-point Likert scale (1= strongly disagree/ strongly dissatisfied and 7= strongly agree/strongly satisfied).

**Rural community entrepreneurial climate**

For this study, "community entrepreneurial climate" is defined as a dynamic business and social environment derived from a strong community infrastructure that provides opportunities for business activities to thrive. Community economic development specialists have initiated community self-development based programs as a way to facilitate business activities in rural communities in order to strengthen the rural economy. I posited that a community's entrepreneurial climate would be enhanced by community self-development efforts that attract business activities. Downtown revitalization is one strategy for promoting local patronage which can foster support for local businesses and increase a rural community's entrepreneurial environment.

Subjective measures were used to assess this component because most related questions used in past research were concerned with business owners in general rather than with residents’ perceptions. Participants, who generally composed of local residents, might possess only vague or general knowledge or understanding about the success of their local business community. Hence, subjective measures are considered to be relevant to measure the general perceptions of residents toward their community business environment result from self-development programs. Subjective measures can be applied when other kinds of measures are unavailable or non-established validity is reported (Dess & Robinson, 1984). Though the perceptions were subjective, these measures were deemed essential since there are few established objective measures of entrepreneurial climate (Chatman et al., 2008).
Respondents were asked to give their perceptions of the determinants of community entrepreneurial climate in general via a series of self-designed measures. Some items were adapted from work on community resiliency by Niehm et al. (2008) and Chatman et al. (2008). Chatman et al. measured community entrepreneurial climate using factors such as networking, high speed internet access, local patronage, government support, quality of life, and the availability of financial resources and assistance. These items were intended to assess residents' perceptions of their community's entrepreneurial climate in relation to self-development programs. Based on the pretest results, reliability of the six items measuring community entrepreneurial climate was .86.

Examples included: “Community self-development programs (e.g., downtown revitalization, local business assistance and expansion, and historic development for tourism) are successful in attracting new businesses to the community”, “Community self-development programs (e.g., downtown revitalization, local business assistance and expansion, and historic development for tourism) increase the performance of existing businesses in the community”, “This community offers local business assistance resources that help to attract entrepreneurial activities”, and “This community provides access to business incentive/start-up funds that help to attract entrepreneurial activities”. Responses were given on a seven-point Likert scale (1= strongly disagree, 7= strongly agree).

Community entrepreneurial climate and perceived community satisfaction

Several factors have been identified as important determinants of community satisfaction, including social dimensions of a community, employment and economic opportunities, and community services (Brown, 1993; Chatman et al., 2008; Filkins et al., 1999; Goudy, 1977). Encouraging entrepreneurial activity within a community will contribute to community vitality through innovation, job opportunities, and a competitive market environment that attracts new businesses to the community. Communities with enhanced entrepreneurial climates are posited to
affect community satisfaction because of the opportunities derived from the entrepreneurial activity that help entrepreneurs and their businesses to flourish.

Community satisfaction in relation to community entrepreneurial climate was evaluated using a series of established (Kilkenny et al., 1999) and self-developed measures. The pretest results reported a reliability of .75. Respondents were asked to assess their satisfaction with the existing entrepreneurial climate in their community by responding to statements such as: “Community self-development efforts help to prosper entrepreneurial activities in the community”, “If given a chance, I would brag about [MY TOWN] as a good place to locate a business”, “Retail businesses are thriving in this community”, and “Overall, the people in [MY TOWN] feel satisfied towards the improvement of business opportunities in the community”. Responses were measured on a seven-point Likert scale (1= strongly disagree, 7= strongly agree).

**Community attachment**

Community satisfaction is a key factor in rural community sustainability. Research related to community satisfaction and attachment is normally link closely with quality of life. Community self-development efforts provide opportunities for local residents to get socially integrated with each member in the community and this influences community’s quality of life. Quality of life is an element of community attributes that can influence community satisfaction. Changes resulting from community self-development efforts may be in the form of improvements in community and retail businesses that provide benefits to the community.

When community residents feel satisfied with the changes brought about by their local institutions, this will help to sustain the community. To sustain community, local institutions should be capable of providing its residents with utility in meeting certain basic needs of its community members. Community satisfaction is deemed to have a positive effect on social outcomes such as increased community attachment. I posited that a community whose members feel satisfied with the well-being of their community will make individuals remain in the community.
Community attachment is an individual's positive emotional feeling towards or connection with a place and is normally associated with their length of stay, involvement in the community, and strength of social relations. Community attachment is assumed to have a strong correlation with both the physical environment and the social structure that develops over time through social interactions and networks. Long term residence has a significant effect on sense of place or sentiment among residents; the longer they have been there, the more likely it is that they will engage in activities that support community livelihood. Length of residency in a community influences the individual’s sentiment towards the place. A community’s social bonds as well as its members' engagement in social activities contribute to a strong attachment to the community. I measured community attachment using two indicators regarding community sentiment and social bonds (i.e., involvement) in the community.

Six items were adapted from work on community attachment by Brehm et al. (2006), and Miller (2001). These items were intended to assess community attachment and included statements such as: “Living in this community is like living among close friends”, “The people of [MY TOWN] feel at home in this community”, “The people of [MY TOWN] would be sad if they had to move”, and “The people of [MY TOWN] know most of the adult residents in the neighborhood”. Responses were given on a seven-point Likert scale (1 = strongly disagree, 7 = strongly agree). Reliability of Miller’s three items that assess community sentiment and six items of community involvement yielded coefficients of .80 and .72 respectively. Reliability of Brehm’s et al. social dimension of community attachment was .73.

Community support

Community attachment has a significant effect on community attitude and behavior. In this context, a community whose members possess a strong attachment to a place will likely contribute to favorable behaviors that reflect their support of the future and well-being of the community.
Dimensions of community attachment include community attitudes and sentiments, interest in community, and community involvement. These dimensions reflect community support.

I posited that a strong attachment to the community generates both social and economic support and a sense of responsibility for community prosperity. Since community self-development efforts are associated with strategies for enhancing the community and business districts, community behavior in the sense of shopping at local stores, and support of local community would be the two dimensions of community support.

**Shop at local stores**

I defined community shopping at local stores as positive community behavior, specifically patronage of local merchants derived from a positive evaluation of community retail and service attributes. Questions used to measure this were drawn from work by Landry, Arnold, and Stark (2005) and Home (2002). Questions were modified to address the proposed hypothesis that posited a relationship between community satisfaction and community shopping at local stores. Reliability for the patronage dimension of Landry’s et al. modified scale was .86. Home’s original scale of patronage behavior showed decent factor loadings of .50 or above for the majority of items loaded into each factor (there are five factors altogether) and this provides some evidence of accuracy in the measurement instrument.

Examples of measures included: “The people of [MY TOWN] often shop locally”, “Whenever possible, the people of [MY TOWN] purchase products and supplies locally even when they cost more”, “The people of [MY TOWN] can get anything from local stores”, “Local stores provide the people of [MY TOWN] with a variety of product and services” and “Purchasing goods and services at local stores save time and trouble”, “It is nice to shop in a familiar store with familiar sales people”, and “The people of [MY TOWN] feel comfortable when they shop at local stores in their community”. Responses were given on a seven-point Likert scale (1= strongly disagree, 7= strongly agree).
Support of local community

I defined "support of local community" as a positive evaluation of social and economic attributes resulting from local residents' strong attachment to their community, and which influences residents to promote their local community including local businesses and community-based programs. In this case, support would be in the form of a feeling of responsibility towards the future of local community and as providers of free advertising or promotion (i.e., word of mouth marketing). This process supports local businesses success and sustainability. Different degrees of community support are assumed to derive from different degrees of attachment to the community. An individual's degree of support for their community is influenced by the prevailing values of the community in which he is embedded (Miller & Kean, 1997).

Support of the local community was assessed using a series of questions adapted from work by Besser and Miller (2001), Home (2002), Kilkenny et al. (1999), and Miller and Kean (1997). Reliability for their support of local business scale was not reported in Kilkenny et al. Home’s original support of local stores scale showed some evidence of accuracy with the majority of factor loadings .50 or above. Reliability for the support dimension of both Besser and Miller’s and Miller and Kean’s original scale were .77. Examples of measures used in this section included: “The people of [MY TOWN] appreciate small town retailers in the community”, “The people of [MY TOWN] care about the fate of small town retailers in the community”, “The local stores are important to the people of [MY TOWN]”, and “The people of [MY TOWN] always share information about new promotions or offerings available at local stores with their friends”, “The people of [MY TOWN] do not support local businesses enough”, “If you have a store in the community, it should be used”, “The people of [MY TOWN] provide technical and financial assistance in community development and planning”, and “The community support for local bond issues to finance community improvement projects.. Responses were measured on a seven-point Likert scale (1= strongly disagree, 7= strongly agree) reflecting community residents’ support of local community.
Community economic vitality

Community economic vitality reflects the enhancement of community economic well-being through community support that generates more income and business opportunities in the community. Community support - that is, positive behavior towards community development - is vital to spurring rural economic growth because it creates and encourages locally-owned businesses and community-based programs which in turn promotes the community as a desirable place to live and start a business. Subjective measures were used to assess community economic vitality because this study seeks to assess the perceptions of community residents about the economy health of their community as a result of community support and local self-development efforts. Indicators of community economic vitality included job growth, economic level, and poverty level, all of which reflect the improvement of a rural economy. The reliability of the four items measuring community economic vitality was .78.

Respondents were asked to give their perception of the determinants of community entrepreneurial vitality in general using a series of questions adapted from Niehm et al. (2008). Measures included: “Economically, this community is better off than most communities of similar size”, “There are many job opportunities in this community”, “There is less poverty in this community”, and “I think this community has grown stronger economically in the past five to ten years”. Responses were measured on a seven-point Likert scale (1= strongly disagree, 7= strongly disagree).

Demographic Data

A series of demographic questions were asked at the end of the survey regarding age, gender, education, years of residence in the community, annual income, employment status, community location near to a larger community that it relies upon economically, participation in community events or programs, and whether participants work in the community or vice-versa.
**Data Analysis**

Several types of statistical analyses were conducted. Descriptive statistics were run on respondents’ demographic profiles and key research variables. Descriptive statistics include frequencies, %, means, minimum and maximum scores, and standard deviations. Exploratory factor analysis (EFA) was performed to assess the underlying dimensions of the eight constructs. Item loadings were assessed based on the strength of correlations. Loadings of .50 or greater on an individual factor and below .30 on other factors were used as benchmarks for retaining items (Hair, Anderson, Tatham, & Black, 1992). A larger absolute value of factor loading indicates that the loading is more significant in interpreting the factor matrix (Hair et al., 1992). Theoretical justification was employed to help determine retention of items that were cross loaded. Reliability of the measures was assessed based on the Cronbach’s alpha coefficient (Cronbach, 1951). A bivariate correlation was performed to assess the strength among the research variables.

A descriptive statistical analysis was initially conducted to evaluate characteristics of the sample. Next, a two-step process was followed to test the structural model using Anderson and Gerbing’s (1988) recommended approach. First a confirmatory factor analysis (CFA) was performed to specify the relations of the observed measures posited as underlying constructs relative to the independent variable. The dependent and independent variables were specified in the measurement model. This is important to ensure that the order of dependent variables precedes the independent variables. Confirmatory factor analysis (CFA) for each construct and measurement model testing was performed using Mplus statistical software. The purpose of conducting a CFA was to test a theory about latent processes, and to determine whether a fresh hypothesized factor fits a fresh set of data (Brown, 2006; Foster, Barkus, & Yavorsky, 2006). Structural model testing was conducted through steps: evaluation of the structural model and alternative model approach. Structural equation modeling (SEM) with maximum likelihood estimation was applied to estimate and test the causal structure of the proposed model.
An estimation of the measurement model’s fit was conducted to assess multiple goodness-of-fit indices including chi-square, the ratio of $\chi^2$/df, comparative fit index (CFI), standardized root mean square residual (SRMR), and root mean square error of approximation (RMSEA). The software package MPlus was used to conduct the individual CFAs for each construct and to test the full measurement and structural models (Muthén & Muthén, 1998-2010).
CHAPTER 4. RESULTS AND DISCUSSION

This chapter presents the sample profile, descriptive statistics of research variables, and results of the statistical analyses. First, sample demographics such as age, gender, level of education, annual income, employment status, and active status are reported. Second, descriptive statistics of the overall mean scores for research variables are examined. Results of an exploratory factor analysis (EFA) performed on research variables are discussed. Structural equation modeling is used to assess the measurement and causal models, and findings are discussed in detail. Finally, to conclude the chapter, results of a revised model are presented.

Survey Response Rates and Community Demographic Profile

A total of 63 online surveys of the 1,400 distributed were completed and 59 were deemed usable, providing a 4.2% response rate for the online survey. For the mailed survey, 152 of the 385 surveys mailed were returned and deemed usable, yielding a 39.5% response rate. An overall total of 211 usable surveys were completed from both modes of data collection for a final total response rate of 12%. The sample was comprised of 211 residents of seven rural, non-metropolitan communities in Iowa with a population of less than 10,000: Elkader (19.9%), Greenfield (26.1%), Belle Plaine (8.1%), Charles City (13.7%), Mount Vernon (17.5%), Woodbine (3.3%), and Sac City (11.4%). Four of the selected rural communities had more than three years of involvement in self-development efforts (Elkader, Greenfield, Charles City, and Sac City). The other three communities had three years or less involvement in self-development programs (Mount Vernon, Woodbine, and Belle Plaine).

Sample Community Demographics

Questions on community demographics included both active status and community dependence economically to the larger community. Active status refers to the degree of participation of local residents in community programs. Based on the descriptive analysis, 26% of residents considered their community as active while 71% regarded their community as less active.
in terms of residents’ participation in community-based activities. Approximately 55% stated that their community relied economically on a larger nearby community, while 45% stated that their community is not dependent on a larger community (this adds to less than 100% due to missing data).

**Sample Respondent Demographics**

There was a large difference in terms of gender, with 60.2% of respondent’s being female and 37.4% male (this adds to less than 100% due to missing data). Respondents tended to be highly educated with 53% holding a bachelor’s degree or higher. Approximately 68% of the samples were above 65 years of age. The average age of respondents was between 56 and 65, and 80% have lived in the community for more than 10 years. Average personal and family income was between $60,000 to $79,999, with 54% employed. More than 50% of respondents work in the local community. Sample characteristics of respondent demographics are summarized in Table 4.1.

Since this study utilized multiple methods of data collection, an independent sample t-test was conducted to ensure that there were no differences in participant responses based on the two data collection methods (online and mailed). Mailed surveys were coded as one (1) and online surveys were coded as two (2). To condense the data, composite scores of each variable were calculated for each data collection method. Based on the results of the t statistic, there were no significant differences in the majority of participant responses for the both online and mail surveys. A significant difference on responses was found only for items measuring the community economic vitality construct. The difference of responses on these items may be due to the fact that most respondents for the online survey were employed compared to the mailed survey respondents in which the majority of mail survey participants were older residents who were retired. These differences in socio-economic background may have indirectly influenced responses towards items assessing the economic vitality construct.
Table 4.1. Sample Characteristics: Residents of Rural Iowa Communities ($N = 211$)

<table>
<thead>
<tr>
<th>Personal Characteristics</th>
<th>Frequency</th>
<th>Percent (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Age</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>18-25 years</td>
<td>2</td>
<td>0.9</td>
</tr>
<tr>
<td>26-35</td>
<td>17</td>
<td>8.1</td>
</tr>
<tr>
<td>36-45</td>
<td>33</td>
<td>15.6</td>
</tr>
<tr>
<td>46-55</td>
<td>36</td>
<td>17.1</td>
</tr>
<tr>
<td>56-65</td>
<td>52</td>
<td>24.6</td>
</tr>
<tr>
<td>Above 65</td>
<td>68</td>
<td>32.2</td>
</tr>
<tr>
<td><strong>Gender</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>79</td>
<td>37.4</td>
</tr>
<tr>
<td>Female</td>
<td>127</td>
<td>60.2</td>
</tr>
<tr>
<td><strong>Education</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Less than high school</td>
<td>1</td>
<td>0.5</td>
</tr>
<tr>
<td>High school</td>
<td>29</td>
<td>13.7</td>
</tr>
<tr>
<td>College/Technical</td>
<td>51</td>
<td>24.2</td>
</tr>
<tr>
<td>Associate Degree</td>
<td>14</td>
<td>6.6</td>
</tr>
<tr>
<td>Bachelor</td>
<td>72</td>
<td>34.1</td>
</tr>
<tr>
<td>Graduate</td>
<td>41</td>
<td>19.4</td>
</tr>
<tr>
<td><strong>Annual Income</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>$19,999 or less</td>
<td>21</td>
<td>10.0</td>
</tr>
<tr>
<td>$20,000-$39,999</td>
<td>35</td>
<td>16.6</td>
</tr>
<tr>
<td>$40,000-$59,999</td>
<td>52</td>
<td>24.6</td>
</tr>
<tr>
<td>$60,000--$79,999</td>
<td>29</td>
<td>13.7</td>
</tr>
<tr>
<td>80,000-$99,999</td>
<td>14</td>
<td>6.6</td>
</tr>
<tr>
<td>$100,000 or more</td>
<td>19</td>
<td>9.0</td>
</tr>
<tr>
<td>Choose not to answer</td>
<td>40</td>
<td>19.0</td>
</tr>
<tr>
<td><strong>Employment status</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Disabled</td>
<td>3</td>
<td>1.4</td>
</tr>
<tr>
<td>Student</td>
<td>1</td>
<td>0.5</td>
</tr>
<tr>
<td>Homemaker</td>
<td>7</td>
<td>3.3</td>
</tr>
<tr>
<td>Retired</td>
<td>69</td>
<td>32.7</td>
</tr>
<tr>
<td>Unemployed</td>
<td>7</td>
<td>3.3</td>
</tr>
<tr>
<td>Employed</td>
<td>114</td>
<td>54.0</td>
</tr>
<tr>
<td>Choose not to answer</td>
<td>6</td>
<td>2.8</td>
</tr>
<tr>
<td><strong>Years live in the community</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10 years or less</td>
<td>42</td>
<td>19.9</td>
</tr>
<tr>
<td>More than 10 years</td>
<td>168</td>
<td>79.6</td>
</tr>
<tr>
<td><strong>Work in the community</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>111</td>
<td>52.6</td>
</tr>
<tr>
<td>No</td>
<td>90</td>
<td>42.7</td>
</tr>
</tbody>
</table>
Overall Mean Scores for Research Variables

Descriptive statistics such as mean, standard deviation, minimum and maximum variable values are summarized in Table 4.2. Averaged scores were created for all research variables to simplify the complexity of the data. Based on descriptive statistics, the highest mean score was community satisfaction \((M = 5.32, SD = 1.14)\) and the lowest mean score was community economic vitality \((M = 4.16, SD = 1.37)\). Other research variables included social capital, economic support, self-development efforts, entrepreneurial climate, attachment, and support. Overall, these research variables demonstrated moderate mean scores (see Table 4.2). It was interesting to discover that 59\% of community residents scored above the mean \((M = 5.32, SD = 1.14)\) for satisfaction, suggesting that for the most part, residents were satisfied with their community. The descriptive statistics also reported a reasonably high mean score of community economic support \((M = 5.20, SD = 1.02)\). Minimum and maximum scores of each research variable are reported, indicating that responses varied from strongly disagree to strongly agree.

Table 4.2. Descriptive statistics of overall mean scores for research variables

<table>
<thead>
<tr>
<th>Variables</th>
<th>N</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean¹</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social capital</td>
<td>211</td>
<td>1.00</td>
<td>7.00</td>
<td>5.08</td>
<td>1.07</td>
</tr>
<tr>
<td>Economic support</td>
<td>211</td>
<td>1.00</td>
<td>7.00</td>
<td>5.20</td>
<td>1.02</td>
</tr>
<tr>
<td>Self-development efforts</td>
<td>211</td>
<td>1.00</td>
<td>7.00</td>
<td>5.05</td>
<td>1.20</td>
</tr>
<tr>
<td>Community satisfaction</td>
<td>211</td>
<td>1.00</td>
<td>7.00</td>
<td>5.32</td>
<td>1.14</td>
</tr>
<tr>
<td>Entrepreneurial climate</td>
<td>211</td>
<td>1.00</td>
<td>7.00</td>
<td>4.89</td>
<td>1.23</td>
</tr>
<tr>
<td>Attachment</td>
<td>211</td>
<td>1.00</td>
<td>7.00</td>
<td>5.18</td>
<td>1.15</td>
</tr>
</tbody>
</table>
Table 4.2. (continued)

<table>
<thead>
<tr>
<th>Variables</th>
<th>N</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean¹</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Support</td>
<td>211</td>
<td>1.75</td>
<td>6.81</td>
<td>4.64</td>
<td>0.87</td>
</tr>
<tr>
<td>Economic vitality</td>
<td>211</td>
<td>1.00</td>
<td>7.00</td>
<td>4.16</td>
<td>1.37</td>
</tr>
</tbody>
</table>

¹ Item scores range from 1 (strongly disagree) to 7 (strongly agree) on research instrument (Refer to Appendix B).

Exploratory Factor Analysis (EFA)

Before testing the overall measurement model, unidimensionality of each construct was assessed. This procedure confirms that each set of indicators has only one underlying construct in common (Sethi & King, 1994). To ensure unidimensionality, exploratory factor analysis (EFA) was conducted on each construct using SPSS version 18. The purpose of conducting an EFA is to summarize patterns of correlations among observed variables (Tabachnick & Fidell, 2007). The goal of EFA is to reduce a large number of observed variables to a smaller number of factors (Tabachnick & Fidell, 2007). To examine underlying dimensions of the constructs, principle axis factoring analysis with oblimin rotation was performed for each variable. The results confirmed unidimensionality for the constructs of: community social capital, community economic support, community self-development efforts, community satisfaction, community entrepreneurial climate, community attachment, community support, and community economic vitality.

The EFA yielded one factor models for items that measured community social capital, community self-development efforts, community satisfaction, community entrepreneurial climate, community attachment, community support, and community economic vitality. For community economic support, two factor models were produced. The factor loadings of each item were above 0.50, demonstrating soundness of the factor structure (Hair et al., 1992). The Cronbach’s alpha coefficients ranged from 0.80 to 0.98, indicating high internal consistency for the constructs.
Reliabilities of .70 or higher are considered adequate and suffice for a satisfactory level of reliability (Nunnally, 1978). Minimum eigenvalues of 1.0 were used to determine the number of factors for each scale. Tables 4.3 to 4.10 present the results of the factor analysis and a detailed description of each item for each factor.

**Community social capital**

Factor analysis of the 19 items included in the community social capital scale revealed one factor that accounted for 69.52% of the variance. Factor loadings ranged from 0.68 to 0.89. The Cronbach’s alpha reliability of the items was 0.98. This measurement comprised items that measured community social features including collective action, commitment, and participation. These dimensions of social capital were previously discussed in the literature on social capital in Chapter 2.

**Community economic support**

This measurement reflected the influence of community social environment on residents' willingness to provide economic support for self-development efforts. Factor analysis of the six items included in the community economic support scale revealed two factor models that accounted for 74.64% of the variance. The first factor model consisted of four items that measured the importance of economic contribution to development efforts. This factor was named "community networks" and accounted for 65.33% of the variance. The second factor consisted of two items that measured the importance of economic support in determining development success, and was named "community development success". This factor accounted for 18.15% of the variance. The Cronbach’s alpha reliability of the items was 0.93 and 0.82 respectively. The labels of "community networks" and "community development success" for the two factors reflect the interpretation of the items that reflect each underlying construct. Interpretation of factors is based on the meaning of the particular combination of observed variables that correlate highly with each factor (Tabachnick & Fidell, 2007).
Community self-development efforts

Principle axis factoring with oblimin rotation of six items about community self-development programs revealed one factor that accounted for 69.18% of the variance. Factor loadings of these items ranged from 0.65 to 0.89. The Cronbach’s alpha reliability of the items was 0.91. Community self-development efforts measured the importance of self-development efforts in the community, particularly the benefits of self-development in enhancing a community’s quality of life.

Perceived community satisfaction

Perceived community satisfaction evaluated the influence of a community's environment on community satisfaction. Factor analysis of the 12 items included in the community satisfaction scale revealed one factor model of community satisfaction that accounted for 68.62% of the variance. Factor loadings ranged from 0.70 to 0.89. The Cronbach’s alpha reliability of the items was 0.96.

Community entrepreneurial climate

Factor analysis of the 10 items included in the community entrepreneurial climate scale revealed one factor model. This measurement assessed the relationship between community self-development efforts and rural community’s entrepreneurial climate. Community entrepreneurial climate measured the benefits obtained from local residents when the community they live in is thriving with entrepreneurial activities. The total explained variance of these 10 items was 67.41%. Factor loadings ranged from 0.65 to 0.88. The Cronbach’s alpha reliability of the items included in this factor was 0.95.

Community attachment

Factor analysis of the six items included in the community attachment scale revealed one factor model of community attachment. The total explained variance of these six items was 64.53%. Factor loadings ranged from 0.65 to 0.88. The Cronbach’s alpha reliability of the items included in this factor was 0.89.
Community support

Factor analysis utilizing a principle axis factoring method with oblimin rotation yielded four factors that were highly correlated with one another. Additionally, several items on each factor were found to be cross-loaded, and this created some difficulties in interpreting the meaning of each factor. The practical disadvantages of oblique rotation are in interpreting, describing, and reporting results (Tabachnick & Fidell, 2007). Therefore, an alternative method of extraction was performed to gain a simple structure model, with only one loading on one factor. Principle component analysis without a rotation revealed one factor of community support that accounted for 41.48% of the variance and the Cronbach’s alpha reliability of the items was 0.89, indicating that the measurement is consistent. Factor loadings ranged from 0.18 to 0.78. Low factor loadings were found on two items that were reverse-coded.

Community economic vitality

Community economic vitality indicates increased rural economic wealth resulting from community support. Factor analysis with principle axis factoring and oblimin rotation revealed one factor of economic vitality that accounted for 70.04% of the variance. Factor loadings ranged from 0.72 to 0.80. The Cronbach’s alpha reliability of the items was 0.86.

Table 4.3. Results of Factor Analysis and Descriptive Statistics of Community Social Capital (N = 205)

<table>
<thead>
<tr>
<th>Factor Titles and Items</th>
<th>Mean¹</th>
<th>SD</th>
<th>Factor loadings</th>
</tr>
</thead>
<tbody>
<tr>
<td>The people of [MY TOWN] are willing to work together for the community.</td>
<td>5.26</td>
<td>1.27</td>
<td>0.82</td>
</tr>
<tr>
<td>The people of [MY TOWN] really care about the future of this community.</td>
<td>5.51</td>
<td>1.29</td>
<td>0.78</td>
</tr>
<tr>
<td>The people of [MY TOWN] volunteer for community development activities.</td>
<td>5.03</td>
<td>1.33</td>
<td>0.80</td>
</tr>
<tr>
<td>The people of [MY TOWN] are interested to know what goes on in the community.</td>
<td>5.55</td>
<td>1.18</td>
<td>0.69</td>
</tr>
<tr>
<td>Factor Titles and Items</td>
<td>Mean¹</td>
<td>SD</td>
<td>Factor loadings</td>
</tr>
<tr>
<td>----------------------------------------------------------------------------------------</td>
<td>-------</td>
<td>-----</td>
<td>-----------------</td>
</tr>
<tr>
<td>The people of [MY TOWN] are happy to help out the community if they need a hand.</td>
<td>5.33</td>
<td>1.25</td>
<td>0.84</td>
</tr>
<tr>
<td>The people of [MY TOWN] believe that what is good for their community is good for them.</td>
<td>5.16</td>
<td>1.33</td>
<td>0.80</td>
</tr>
<tr>
<td>The people of [MY TOWN] support community based projects and other local economic efforts that benefit the community.</td>
<td>5.13</td>
<td>1.29</td>
<td>0.88</td>
</tr>
<tr>
<td>The people of [MY TOWN] cooperate to support the local economy.</td>
<td>4.67</td>
<td>1.41</td>
<td>0.87</td>
</tr>
<tr>
<td>The people of [MY TOWN] are glad to do what they can to improve this community.</td>
<td>5.11</td>
<td>1.26</td>
<td>0.89</td>
</tr>
<tr>
<td>When something needs to get done in [MY TOWN], the community usually gets behind it.</td>
<td>5.19</td>
<td>1.25</td>
<td>0.85</td>
</tr>
<tr>
<td>Community clubs and organizations are interested in what is best for all residents.</td>
<td>5.44</td>
<td>1.27</td>
<td>0.68</td>
</tr>
<tr>
<td>The people of [MY TOWN] share the same vision for our community’s future.</td>
<td>4.47</td>
<td>1.37</td>
<td>0.75</td>
</tr>
<tr>
<td>The people of [MY TOWN] work together to make this a vibrant community.</td>
<td>5.00</td>
<td>1.29</td>
<td>0.89</td>
</tr>
<tr>
<td>The people of [MY TOWN] work together toward common goals.</td>
<td>4.81</td>
<td>1.30</td>
<td>0.86</td>
</tr>
<tr>
<td>The people of [MY TOWN] often attend local community events.</td>
<td>5.23</td>
<td>1.26</td>
<td>0.77</td>
</tr>
<tr>
<td>The people of [MY TOWN] willing to become involved with the local community and are not focused only on their own lives.</td>
<td>4.69</td>
<td>1.27</td>
<td>0.83</td>
</tr>
<tr>
<td>The people of [MY TOWN] feel that they are part of a team at work.</td>
<td>4.59</td>
<td>1.32</td>
<td>0.87</td>
</tr>
<tr>
<td>The people of [MY TOWN] collaborate with organizations and associations in the community to help community programs.</td>
<td>5.01</td>
<td>1.25</td>
<td>0.88</td>
</tr>
</tbody>
</table>

Eigenvalue = 13.21  Cronbach’s Alpha = 0.98  Total Variance Explained = 69.52% ¹ Item scores range from 1 (strongly disagree) to 7 (strongly agree) on research instrument (Refer to Appendix B).
Table 4.4. Results of Factor Analysis and Descriptive Statistics of Community Economic Support (N = 208)

<table>
<thead>
<tr>
<th>Factor Titles and Items</th>
<th>Mean(^1)</th>
<th>SD</th>
<th>Factor loadings</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Community networks (N = 208)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The people of [MY TOWN] work together to financially support Community self-development programs.</td>
<td>4.77</td>
<td>1.26</td>
<td>0.92</td>
</tr>
<tr>
<td>The people of [MY TOWN] are generous in giving charitable donations to aid community self-development programs.</td>
<td>5.01</td>
<td>1.29</td>
<td>0.90</td>
</tr>
<tr>
<td>The people of [MY TOWN] normally organize fundraising and volunteering activities to help raise funds for community self-development programs.</td>
<td>5.13</td>
<td>1.33</td>
<td>0.78</td>
</tr>
<tr>
<td>The people of [MY TOWN] are willing to do whatever they can to financially support community self-development programs.</td>
<td>4.69</td>
<td>1.33</td>
<td>0.86</td>
</tr>
<tr>
<td>Eigenvalue = 3.92&lt;br&gt;Cronbach’s Alpha = 0.93&lt;br&gt;Total Variance Explained = 65.33%</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Community development success (N = 211)**

| Community self-development programs are not able to succeed without strong economic support from the community. | 5.72       | 1.18 | 0.80           |
| The availability of funds helps to enhance self-development programs in the community. | 5.84       | 1.19 | 0.85           |
| Eigenvalue = 1.09<br>Cronbach’s Alpha = 0.82<br>Total Variance Explained = 18.15% |            |     |                |

\(^1\) Item scores range from 1 (strongly disagree) to 7 (strongly agree) on research instrument (Refer to Appendix B).
Table 4.5. Results of Factor Analysis and Descriptive Statistics of Community Self-Development Efforts \( (N = 209) \)

<table>
<thead>
<tr>
<th>Factor Titles and Items</th>
<th>Mean¹</th>
<th>SD</th>
<th>Factor loadings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Community self-development programs (e.g., downtown revitalization, local business assistance and expansion, and historic development for tourism) help to enhance the attractiveness of local stores in our community.</td>
<td>5.95</td>
<td>1.25</td>
<td>0.75</td>
</tr>
<tr>
<td>The overall selection of merchandise offered by downtown retail stores meet the needs of customers in this community.</td>
<td>4.11</td>
<td>1.55</td>
<td>0.65</td>
</tr>
<tr>
<td>Most of downtown retail stores in [MY TOWN] offer quality merchandise with reasonable price.</td>
<td>4.78</td>
<td>1.45</td>
<td>0.73</td>
</tr>
<tr>
<td>Community self-development programs (e.g., downtown revitalization, local assistance and expansion, and historic development for tourism) aid to create a new exciting store experience for people in [MY TOWN].</td>
<td>5.02</td>
<td>1.52</td>
<td>0.87</td>
</tr>
<tr>
<td>Community self-development programs (e.g., downtown revitalization, local assistance and expansion, and historic development for tourism) have succeeded in creating a new look for the community and business districts in our community.</td>
<td>5.00</td>
<td>1.46</td>
<td>0.86</td>
</tr>
<tr>
<td>Overall, community self-development programs assist to improve the quality of life in the community.</td>
<td>5.41</td>
<td>1.47</td>
<td>0.89</td>
</tr>
</tbody>
</table>

Eigenvalue = 4.15  
Cronbach’s alpha = 0.91  
Total Variance Explained = 69.18%

¹ Item scores range from 1 (strongly disagree) to 7 (strongly agree) on research instrument (Refer to Appendix B).
Table 4.6. Results of Factor Analysis and Descriptive Statistics of Perceived Community Satisfaction (N = 209)

<table>
<thead>
<tr>
<th>Factor Titles and Items</th>
<th>Mean¹</th>
<th>SD</th>
<th>Factor loadings</th>
</tr>
</thead>
<tbody>
<tr>
<td>How satisfied are you with community residents’ willingness to work together for the community?</td>
<td>4.75</td>
<td>1.32</td>
<td>0.73</td>
</tr>
<tr>
<td>How satisfied are you with the role of community leaders in supporting economic development efforts in your community?</td>
<td>5.07</td>
<td>1.58</td>
<td>0.70</td>
</tr>
<tr>
<td>How satisfied are you with the quality of life in your community?</td>
<td>5.63</td>
<td>1.38</td>
<td>0.82</td>
</tr>
<tr>
<td>How satisfied are you with the community as a place to live?</td>
<td>5.77</td>
<td>1.38</td>
<td>0.87</td>
</tr>
<tr>
<td>How satisfied are you toward the community good relations among residents?</td>
<td>5.30</td>
<td>1.29</td>
<td>0.88</td>
</tr>
<tr>
<td>How satisfied are you with local government services in your community?</td>
<td>5.18</td>
<td>1.48</td>
<td>0.80</td>
</tr>
<tr>
<td>The people of [MY TOWN] are friendly.</td>
<td>5.75</td>
<td>1.29</td>
<td>0.83</td>
</tr>
<tr>
<td>The people of [MY TOWN] can be trusted.</td>
<td>5.49</td>
<td>1.23</td>
<td>0.81</td>
</tr>
<tr>
<td>The people of [MY TOWN] support each other.</td>
<td>5.22</td>
<td>1.29</td>
<td>0.88</td>
</tr>
<tr>
<td>The people of [MY TOWN] get along well with the people living in the surrounding rural area.</td>
<td>5.33</td>
<td>1.42</td>
<td>0.80</td>
</tr>
<tr>
<td>The people of [MY TOWN] continually Look for new solutions to problem rather Than being satisfied with things they are.</td>
<td>5.04</td>
<td>1.47</td>
<td>0.75</td>
</tr>
<tr>
<td>This community is an ideal place to live</td>
<td>5.36</td>
<td>1.48</td>
<td>0.88</td>
</tr>
</tbody>
</table>

Eigenvalue = 8.23  
Cronbach’s Alpha = 0.96  
Total Variance Explained = 68.62%

¹ Item scores range from 1 (strongly disagree/dissatisfied) to 7 (strongly agree/satisfied) on research instrument (Refer to Appendix B).
Table 4.7. Results of Factor Analysis and Descriptive Statistics of Entrepreneurial Climate (N = 208)

<table>
<thead>
<tr>
<th>Factor Titles and Items</th>
<th>Mean²</th>
<th>SD</th>
<th>Factor loadings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Community self-development programs (e.g., downtown revitalization, local business assistance and expansion, and historic development for tourism) are successful in attracting new businesses to the community.</td>
<td>4.64</td>
<td>1.58</td>
<td>0.86</td>
</tr>
<tr>
<td>Community self-development programs (e.g., downtown revitalization, local business assistance and expansion, and historic development for tourism) aid to increase the performance of existing businesses in the community.</td>
<td>5.05</td>
<td>1.44</td>
<td>0.88</td>
</tr>
<tr>
<td>Community self-development programs (e.g., downtown revitalization, local business assistance and expansion, and historic development for tourism) help to promote the community downtown business districts.</td>
<td>5.21</td>
<td>1.44</td>
<td>0.88</td>
</tr>
<tr>
<td>The rural community entrepreneurial climate could be enhanced if the local government gives support to community self-development programs?</td>
<td>5.41</td>
<td>1.29</td>
<td>0.65</td>
</tr>
<tr>
<td>This community offers local business assistance resources (e.g., Chamber of commerce, economic development, downtown development programs) that help to attract entrepreneurial activities.</td>
<td>5.12</td>
<td>1.52</td>
<td>0.83</td>
</tr>
<tr>
<td>This community provides access to business incentive/start-up funds that help to attract entrepreneurial activities.</td>
<td>4.81</td>
<td>1.54</td>
<td>0.76</td>
</tr>
<tr>
<td>Community self-development efforts help to prosper entrepreneurial activities in the community?</td>
<td>5.00</td>
<td>1.49</td>
<td>0.88</td>
</tr>
<tr>
<td>If given a chance, I would brag about [MY TOWN] as a good place to locate a business.</td>
<td>5.33</td>
<td>1.64</td>
<td>0.78</td>
</tr>
<tr>
<td>Factor Titles and Items</td>
<td>Mean¹</td>
<td>SD</td>
<td>Factor loadings</td>
</tr>
<tr>
<td>---------------------------------------------------------------------------------------</td>
<td>-------</td>
<td>------</td>
<td>-----------------</td>
</tr>
<tr>
<td>Retail business are thriving in this community.</td>
<td>4.07</td>
<td>1.55</td>
<td>0.70</td>
</tr>
<tr>
<td>Overall, the people of [MY TOWN] feel satisfied towards the improvement of business opportunities in the community.</td>
<td>4.25</td>
<td>1.50</td>
<td>0.75</td>
</tr>
</tbody>
</table>

Eigenvalue = 6.74  
Cronbach’s Alpha = 0.95  
Total Variance Explained = 67.41%

¹ Item scores range from 1 (strongly disagree) to 7 (strongly agree) on research instrument (Refer to Appendix B).

---

<table>
<thead>
<tr>
<th>Factor Titles and Items</th>
<th>Mean¹</th>
<th>SD</th>
<th>Factor loadings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Living in this community is like living among close friends.</td>
<td>5.04</td>
<td>1.57</td>
<td>0.84</td>
</tr>
<tr>
<td>The people of [MY TOWN] feel at home in this community.</td>
<td>5.31</td>
<td>1.26</td>
<td>0.88</td>
</tr>
<tr>
<td>The people of [MY TOWN] would be sad if they had to move.</td>
<td>5.25</td>
<td>1.29</td>
<td>0.72</td>
</tr>
<tr>
<td>The people of [MY TOWN] know most of the adult residents in the neighborhood.</td>
<td>5.08</td>
<td>1.53</td>
<td>0.71</td>
</tr>
<tr>
<td>The people of [MY TOWN] know the majority of people who run businesses in the community.</td>
<td>5.33</td>
<td>1.44</td>
<td>0.65</td>
</tr>
<tr>
<td>Meeting friends in the community is part of the people of [MY TOWN] everyday activities.</td>
<td>5.06</td>
<td>1.53</td>
<td>0.74</td>
</tr>
</tbody>
</table>

Eigenvalue = 3.87  
Cronbach’s Alpha = 0.89  
Total Variance Explained = 64.53%

¹ Item scores range from 1 (strongly disagree) to 7 (strongly agree) on research instrument (Refer to Appendix B).

---

Table 4.7. (continued)

Table 4.8. Results of Factor Analysis and Descriptive Statistics of Community Attachment (N = 211)
Table 4.9. Results of Factor Analysis and Descriptive Statistics of Community Support \((N = 204)\)

<table>
<thead>
<tr>
<th>Factor Titles and Items</th>
<th>Mean¹</th>
<th>SD</th>
<th>Factor loadings</th>
</tr>
</thead>
<tbody>
<tr>
<td>The people of [MY TOWN] often shop locally.</td>
<td>4.06</td>
<td>1.48</td>
<td>0.78</td>
</tr>
<tr>
<td>Whenever possible, the people of [MY TOWN] purchase products and supplies locally even when they cost more.</td>
<td>3.93</td>
<td>1.46</td>
<td>0.78</td>
</tr>
<tr>
<td>The people of [MY TOWN] can get anything they want from local stores.</td>
<td>3.08</td>
<td>1.57</td>
<td>0.60</td>
</tr>
<tr>
<td>Local stores provide the people of [MY TOWN] with a variety of product and services.</td>
<td>4.38</td>
<td>1.60</td>
<td>0.70</td>
</tr>
<tr>
<td>Purchasing goods and services at local stores save time and trouble.</td>
<td>5.75</td>
<td>1.39</td>
<td>0.62</td>
</tr>
<tr>
<td>The people of [MY TOWN] go to other communities to shop (R).</td>
<td>2.18</td>
<td>1.19</td>
<td>0.19</td>
</tr>
<tr>
<td>The people of [MY TOWN] appreciate small town retailers.</td>
<td>5.06</td>
<td>1.41</td>
<td>0.70</td>
</tr>
<tr>
<td>The people of [MY TOWN] care about the fate of small town retailers in the community.</td>
<td>5.04</td>
<td>1.40</td>
<td>0.70</td>
</tr>
<tr>
<td>The local stores are important to the people of [MY TOWN].</td>
<td>5.60</td>
<td>1.38</td>
<td>0.74</td>
</tr>
<tr>
<td>The people of [MY TOWN] always inform their friends about new promotions or offerings available at local stores.</td>
<td>4.80</td>
<td>1.44</td>
<td>0.74</td>
</tr>
<tr>
<td>It is nice to shop in a familiar store with familiar sales people.</td>
<td>6.09</td>
<td>1.10</td>
<td>0.70</td>
</tr>
<tr>
<td>The people of [MY TOWN] feel comfortable when they shop at local stores in their community.</td>
<td>5.75</td>
<td>1.23</td>
<td>0.74</td>
</tr>
<tr>
<td>The people of [MY TOWN] do not support local businesses enough (R).</td>
<td>3.29</td>
<td>1.61</td>
<td>0.18</td>
</tr>
</tbody>
</table>
Table 4.9. (continued)

<table>
<thead>
<tr>
<th>Factor Titles and Items</th>
<th>Mean¹</th>
<th>SD</th>
<th>Factor loadings</th>
</tr>
</thead>
<tbody>
<tr>
<td>If we have a store in our community, it should be used.</td>
<td>5.73</td>
<td>1.28</td>
<td>0.40</td>
</tr>
<tr>
<td>The people of [MY TOWN] support for local bond issues to finance community improvement projects.</td>
<td>4.95</td>
<td>1.45</td>
<td>0.64</td>
</tr>
<tr>
<td>The people of [MY TOWN] provide technical and financial assistance in community development and planning.</td>
<td>4.75</td>
<td>1.38</td>
<td>0.68</td>
</tr>
</tbody>
</table>

Eigenvalue = 6.64  
Cronbach’s Alpha = 0.89  
Total Variance Explained = 41.48%

¹ Item scores range from 1 (strongly disagree) to 7 (strongly agree) on research instrument (Refer to Appendix B).

Table 4.10. Results of Factor Analysis and Descriptive Statistics of Community Economic Vitality (N =209)

<table>
<thead>
<tr>
<th>Factor Titles and Items</th>
<th>Mean¹</th>
<th>SD</th>
<th>Factor loadings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Economically, this community is better off than most communities of similar size.</td>
<td>5.07</td>
<td>1.48</td>
<td>0.80</td>
</tr>
<tr>
<td>There are many job opportunities in this community.</td>
<td>3.60</td>
<td>1.63</td>
<td>0.78</td>
</tr>
<tr>
<td>There is less poverty in this community.</td>
<td>3.94</td>
<td>1.65</td>
<td>0.72</td>
</tr>
<tr>
<td>I think this community has grown stronger economically in the past five to ten years.</td>
<td>4.01</td>
<td>1.79</td>
<td>0.80</td>
</tr>
</tbody>
</table>

Eigenvalue = 2.80  
Cronbach’s Alpha = 0.86  
Total Variance Explained = 70.04%

¹ Item scores range from 1 (strongly disagree) to 7 (strongly agree) on research instrument (Refer to Appendix B).
Correlations among Research Variables

Pearson correlations were used as an initial means by which to examine associations among the proposed model's research variables: community social capital, community economic support, community self-development efforts, community perceived satisfaction, community attachment, community support, and community economic vitality. All correlations were highly significant and in the expected direction for the hypothesized relationships (refer to Table 4.11). These correlations confirmed criterion validity of the measures, which suggested that they were accurate in assessing the same construct. The correlation coefficients presented in Table 4.11 reflect the strength of relationships between indicators of social capital, community self-development, perceived satisfaction, and potential satisfaction outcomes (i.e., community entrepreneurial climate, community attachment, community support and community economic vitality). Results of the correlation matrix were used to establish construct validity. Further, measures of the constructs in the proposed model should be correlated as this reflects convergent validity among measures.

Measurement Model

Model testing

Following Anderson and Gerbing’s (1988) recommended approach, a two-step process was utilized as the main method to analyze the data. First, a confirmatory factor analysis (CFA) was performed to specify the relations of the observed measures posited as underlying constructs relative to the independent variables. The dependent and independent variables were specified in the measurement model. Meanwhile, CFA using structural equation modeling (SEM) was applied to estimate the causal patterns and to test the hypothesized causal structure of the proposed model. The purpose of conducting CFA is to test a theory about latent processes, and to determine whether a fresh hypothesized factor fits a fresh set of data (Brown, 2006; Foster, Barkus, & Yavorsky, 2006). Path
Table 4.11. Correlations among Research Variables

<table>
<thead>
<tr>
<th>Research Variables</th>
<th>8(EV)</th>
<th>1(SC)</th>
<th>2(EC)</th>
<th>3(SD)</th>
<th>4(EC)</th>
<th>5(PS)</th>
<th>6(CA)</th>
<th>7(CS)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Community social capital (SC)</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Community economic support (EC)</td>
<td>0.78**</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Community self-development (SD)</td>
<td>0.68**</td>
<td>0.64**</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Community entrepreneurial climate (EC)</td>
<td>0.73**</td>
<td>0.72**</td>
<td>0.84**</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Community perceived satisfaction (PS)</td>
<td>0.80**</td>
<td>0.76**</td>
<td>0.76**</td>
<td>0.81**</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Community attachment (CA)</td>
<td>0.64**</td>
<td>0.62**</td>
<td>0.64**</td>
<td>0.68**</td>
<td>0.79**</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Community support (CS)</td>
<td>0.71**</td>
<td>0.66**</td>
<td>0.74**</td>
<td>0.78**</td>
<td>0.78**</td>
<td>0.75**</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>8. Community economic vitality (EV)</td>
<td>0.61**</td>
<td>0.51**</td>
<td>0.63**</td>
<td>0.67**</td>
<td>0.63**</td>
<td>0.54**</td>
<td>0.68**</td>
<td>1</td>
</tr>
</tbody>
</table>

** Correlation is significant at $p < 0.01$
analysis using maximum-likelihood estimation was selected for analysis of the structural model and hypotheses. The fit of measurement and structural models were tested using the Mplus structural equation analysis package ((Muthén & Muthén, 1998-2010). Based on fit assessments, a revised version of the initial structural model is presented.

**Confirmatory Factor Analysis**

A confirmatory measurement model that specified the posited relations of the observed variables to the underlying constructs, with the construct allowed to inter-correlate freely was tested as recommended by Anderson and Gerbing (1988). All measurement items by respective construct were entered into the analysis. A measurement model, including 78 items and 8 latent variables was tested through structural equation modeling (SEM) using a maximum-likelihood estimation procedure with a covariance matrix as input to test the quality of measures.

Model fit was assessed using several methods. Following model specification and fitting the data, model fit was assessed by reviewing the chi-square statistic. However, the chi-square statistic is sensitive to large samples and thus will contribute to a significant \( p \) value and affect the model fit (Brown, 2006). Due to the large effect of sample size on chi-square values and associated \( p \) values, other fit indices were also used to measure the fit of the tested models, following the recommendations of (Joreskog & Sorbom, 1993). If fit was not acceptable, the standardized residual matrices were reviewed to assess large residuals which contributed most to poor fit. When reviewing residuals and modification indices, the theoretical implications of model re-specification were considered. Modifications contrary to theory were not made unless the change could be logically justified.

Several tests were conducted to determine how well the model fit the data. An important index of absolute fit is the Root Mean Square Error of Approximation (RMSEA). The RMSEA is designed to indicate if a model fits the data reasonably well and has a known population that permits the reporting of a 95% confidence interval for the statistic (Browne & Cudeck, 1993). An index value
less than .06 indicates good fit and a value approaching 0 demonstrates perfect fit. Other fit indices used for model assessment were the ratio of $\chi^2 / df$, comparative fit index (CFI) (Bentler, 1990), and standardized root mean square residual (SRMR). For the ratio of $\chi^2 / df$, Wheaton (1987) proposed that a value of 2 or less indicated a good model fit. The cutoff criteria in assessing model fit were $\text{CFI} \geq 0.95$, $\text{RMSEA} < 0.06$, and $\text{SRMR} < .08$ (Hu & Bentler, 1999). A cut off of 200 or greater for the critical $N$ statistic is suggested as an indication of adequate model fit (Bollen, 1989).

Secondly, item to factor loadings were assessed. Presence of positive and significant item-to-factor loadings supports convergent validity of the model. Discriminant validity was also observed to ensure that no item was cross loaded. Standardized residual variances were also examined to ensure that the estimates were positive and small. Standardized residuals are considered large if they exceed 2.58 (Byrne, 1998). High error terms and cross-loaded items were removed to improve the fit of the CFA model. In addition, $t$-values and $R^2$ were also referenced to assess the strength of each item identified for each construct.

Before proceeding with construct-by-construct CFAs, the researcher used a ‘parceling’ approach on constructs that had large number of items. Parceling is a way to reduce parameters in a model that contains a large number of items (Bandalos, 2002). Item parceling is the aggregating or averaging of scores for two or more items and using these parcel scores to represent the item scores, and has been utilized in many empirical studies to obtain item distributions that are more continuous and normally distributed (Bandalos, 2002). Parceling produces fewer model parameters and will contribute towards an optimal variable-to-sample size ratio and more stable parameter estimates, particularly with small samples (Bagozzi & Hetherton, 1994). Indeed, aggregate scores are preferable to item scores as items become more normally distributed (Little, Cunningham, Shahar, & Widaman, 2002).

Previous studies that utilized a parceling technique resulted in greater numbers of proper solutions than analyses on individual items (Marsh, Hau, Balla, & Grayson, 1998; Yuan, Bentler, &
Additionally, CFA solutions based on parcels have been shown to possess greater power and smaller mean squared errors than individual items (Bandalos, 2002). In this study, eight latent constructs emerged through the initial EFA process: community social capital, community economic support, community self-development efforts, community entrepreneurial climate, perceived community satisfaction, community attachment, community support, and community economic vitality. A large number of items may result in many parameters to be estimated, which will in turn to high error terms (Bandalos, 2002). To reduce the number of large items and parameters in a model, items are divided into parcels and these parcels then used in the CFA.

For this study, parcels were created for the six latent constructs (community social capital, community self-development efforts, perceived community satisfaction, community entrepreneurial climate, community attachment, and community support). To make each parcel more homogeneous, parcels for each variable were developed such that variables with higher factor loadings were combined with those with lower factor loadings (Bagozzi & Hetherton 1994). This process required ranking of the factor loading scores for each item by construct in ascending order, and evenly distributing them into the created parcels. Meanwhile, individual item scores were utilized for the two remaining latent constructs measuring community economic support (two factors) and community economic vitality (four single indicators). The eight variables (Figure 1) maintained during initial confirmatory factor analyses by construct. Construct items retained and deleted as a result of model building are presented in Tables 1 through 8 (refer to Appendix A).

**Confirmatory Factor Analysis by Construct**

**Community social capital**

Nineteen items were used to measure the community social capital construct, which comprised collective action, commitment, and participation dimensions. Based on the factor analysis, a one factor model was obtained for this construct. These items were divided into three parcels. Community social capital was indicated by three parcels called CSC1, CSC2, and CSC3. Average
mean scores were computed for each parcel. Results of the CFA for community social capital revealed a significant chi-square statistic ($\chi^2 = 0.00$, $df = 0$, $p = 0.00$), demonstrating a lack of fit of the data with the model. As previously noted, large sample sizes of 200 or more reduce the reliability of the chi-squared statistic and associated $p$ values. Thus, other fit indices were used to measure the fit of models to data in this study (Joreskog & Sorbom, 1993).

Though the model produced a statistically significant $\chi^2$, the other fit indices were within the acceptable-to-good fit ranges ($CFI = 1.00$, $RMSEA = 0.00$, $SRMR = 0.00$, Ratio of $\chi^2/df = 0.00$). The latent variables exhibited discriminant validity, with none loading on more than one variable. Convergent validity was also achieved, as all estimated parameters were statistically highly significant at the 0.01 level.

**Community economic support**

Community economic support was posited to be indicated by a four-item community networks (CN) factor and a two-item development success (DEVSUC) factor. The initial model was specified to include all variables in the original scales. The first CFA produced a reasonably good fitting model, with no cross loading items. The chi-square statistic for the first-order factor of community economic support was significant ($\chi^2 = 19.05$, $df = 8$, $p = 0.01$), however, the other fit indices were within the acceptable-to-good fit ranges ($CFI = 0.99$, $RMSEA = 0.08$, $SRMR = 0.03$, Ratio of $\chi^2/df = 2.38$). All parameters were statistically highly significant ($p < 0.01$).

**Community self-development efforts**

Community self-development efforts were posited to be indicated by three parcels called CSD1, CSD2, and CSD3. Average mean scores were computed for each parcel. The initial model was specified to include all variables in the original scales. The analysis produced a significant chi-square statistic ($\chi^2 = 0.00$, $df = 0$, $p = 0.00$) but other model fit indices were within the acceptable-to-good range. The CFI (1.00) indicated good fit, exceeding the cut-off point (greater than .95). Other fit indices also demonstrated an acceptable fit ($RMSEA = 0.00$, $SRMR = 0.00$, Ratio of $\chi^2/df = 0.00$).
Perceived community satisfaction

A one factor model with 12 items comprised perceived community satisfaction. Perceived community satisfaction was posited to be indicated by three indicators called CS1, CS2, and CS3 (three parcels). All variables in the original scales were included in the initial model. Three parcels were created for each variable in such a way that variables with higher factor loadings were combined with those with lower factor loadings. Average mean scores for each parcel were computed. The first CFA produced a good fitting model, with no cross-loading items. The analysis produced a non-significant chi-square, which demonstrates that the model fits the data well ($\chi^2 = 2.69$, $df = 1$, $p = 0.10$).

Other fit indices for the first-order factor were within the acceptable-to-good fit ranges ($CFI = 1.00$, $RMSEA = 0.09$, $SRMR = 0.20$, Ratio of $\chi^2/df = 2.69$). Though the model possessed a high SRMR value (0.20) that exceeded the cut-off point of 0.06 or less, other important indicators of model fit were considered good and within the fit ranges (Hu & Bentler, 1999). The model also possessed a non-significant $\chi^2$ that indicated a good fitting model. All variables loaded cleanly on one factor, which provides discriminant validity for the construct. All parameters were highly significant ($p < .01$) providing evidence for the convergent validity of the measure.

Community entrepreneurial climate

Community entrepreneurial climate is a latent construct and was posited to be indicated by three parcels: CEC1, CEC2, and CEC3. The initial model was specified to include all variables in the original scales and achieved a fairly good fit for all indices. Results of the CFA for the first-order factor revealed a significant $\chi^2$ statistic ($\chi^2 = 0.00$, $df = 0$, $p = 0.00$). Though the model produced a statistically significant $\chi^2$ statistic that reflected the lack of fit of the model, other fit indices were within the acceptable good fit ranges ($CFI = 1.00$, $RMSEA = 0.00$, $SRMR = 0.00$, Ratio of $\chi^2/df = 0.00$). RMSEA approached 0, indicating that the model fit the data perfectly (Browne & Cudeck,
1993). All parameter estimates were statistically significant at the 0.01 level offering supports for the convergent validity of the measures.

**Community attachment**

Community attachment is a latent construct and was posited to be indicated by two latent indicators called ATCH 1 and ATCH 2. The initial attempt at fitting this CFA produced a non-positive definite of the residual covariance matrix indicating a negative residual variance for an observed variable (Bollen, 1989). Although the fit indices were within the acceptable to good fit ranges, several variables had substantial standardized residuals. Two variables (items 2 and 5) in Attach 2 (parcel 2) produced a negative value of standardized residual variances with a high correlation. Further examination revealed that items 2 and 5 were redundant measures of the same concept. Since item 2 had a higher factor loading score than item 5, item 5 was dropped from further analysis. Results of the CFA after the second re-specification were acceptable with a significant chi-square statistic ($\chi^2 = 0.00, df = 0, p = 0.00$). While the $\chi^2$ was statistically significant, other fit indices were within the acceptable-to-good fit ranges. The RMSEA (.00) and other associated model fit indices demonstrate good model fit (CFI = 1.00, RMSEA = 0.00, SRMR = 0.00, Ratio of $\chi^2$/df = 0.00). The ratio of $\chi^2$/df of 2 or less also indicates good model fit (Wheaton, 1987).

With the dropping of item 5 from the community attachment construct, the parameter estimate for Attach 2 gained a reasonable factor loading score with a positive estimate of standardized residual variances. The initial model produced a correlation of 1.01 for parcel 2 demonstrating a collinearity problem (a case when two or more independent variables are highly correlated). All the variables loaded on one factor each, which verifies the discriminant validity of the indicators. Convergent validity was also achieved, as each of the parameters in the model was statistically significant at the 0.01 level.
Community support

Community support was posited to be indicated by three indicators called SUPP1, SUPP2, and SUPP3. A one factor model with 16 items comprised the community support construct. All variables in the original scales were included in the initial model. Three parcels were created for each variable in such a way that variables with higher factor loadings were combined with those with lower factor loadings. Average mean scores were computed for each parcel and these mean scores were used in CFA. The first CFA produced a good fitting model, with no cross-loading items. The analysis produced a significant chi-square statistic for the initial community support construct ($\chi^2 = 0.00$, $df = 0$, $p = 0.00$), indicating a lack of fit of the data with the model.

Despite a significant $\chi^2$ statistic, the other fit indices were within the acceptable fit ranges ($CFI = 1.00$, $RMSEA = 0.00$, $SRMR = 0.00$, $Ratio$ of $\chi^2/df = 0.00$). The latent variables exhibited discriminant validity, with none loading on more than one variable. Convergent validity was also achieved, as all estimated parameters were statistically significant at the 0.01 level.

Community economic vitality

Community economic vitality is a latent variable that was posited to be indicated by four measured variables called Vital1, Vital2, Vital3, and Vital4. Since this construct has fewer items loaded on one factor, individual item scores were used in CFA. Results of the CFA for the first-order factor produced a non-significant chi-square statistic ($\chi^2 = 0.10$, $df = 2$, $n = 211$, $p = 0.95$). In addition to a non-significant value of chi-square, other model fit indices were acceptable ($CFI = 1.00$, $RMSEA = 0.00$, $SRMR = 0.00$, $Ratio$ of $\chi^2/df = 0.05$). The RMSEA was approaching 0 indicating that the model fit the data perfectly (Browne & Cudeck, 1993). All of the variables loaded cleanly on only one factor each, which confirms discriminant validity of the indicators. Convergent validity was also gained, as each of the parameters in the model was statistically highly significant at the 0.01 level.

Overall, results of the initial series of CFAs revealed an acceptable fit for all eight constructs (community social capital, community economic support, community self-development efforts,
community entrepreneurial climate, perceived community satisfaction, community attachment, community support, and community economic vitality). Revised construct scales were evaluated for internal consistency using Cronbach’s alpha coefficient, the composite scale reliability, and variance extracted. Scales for all eight constructs met or exceeded minimum levels of acceptable reliability .70 (Nunnally, 1978). Variance extracted also exceeded the minimum standard of .50 (Hair et al., 1992). The results of confirmatory factor analysis by construct, with parceled items (23 indicators and eight latent variables), are shown in Tables 1 through 8 in Appendix A.

**Confirmatory Factor Analysis of Measurement Model**

Using the latent constructs derived from the preceding confirmatory factor analyses, a full measurement model was fitted to the data. The model was specified based on results of the individual construct-by-construct CFAs and contained all eight latent constructs and their indicators. This analysis assessed the relationship of constructs contained in the measurement model. Discriminant validity was also examined to assure that overall factor structures and dimensionality were obtained for the measurement model. Assessment of a full confirmatory factor analysis provided an overall evaluation of construct relationship and model fit (Byrne, 1998). Hence, this assessment offers support for the hypothesized structural model (refer to Figure 2).

The measurement model with parceled items (23 indicators and eight latent variables) demonstrated acceptable model fit. The analysis produced a significant chi-square statistic ($\chi^2 = 468.18$, $df = 288$, $p \leq 0.01$). Despite a significant chi-square, other fit indices indicated acceptable fit and all were within the acceptable-to-good fit ranges (CFI = 0.97, RMSEA = 0.05, SRMR = 0.03, Ratio of $\chi^2/df = 1.63$) (Hu & Bentler, 1999). Strong and distinct item-factor loadings were obtained for the majority of the variables, which provides evidence of convergent validity. All parameters were statistically significant at the $p < .01$ level. Composite reliabilities of all measurement model constructs met minimum recommended levels of reliability (that is, they exceeded the 0.70 threshold) (Nunnally, 1978). The average variance extracted for the majority of measurement model constructs
also exceeded .50 (Hair et al., 1992). Average variance extracted values greater than .50 are considered satisfactory in that they indicate that at least 50% of the variance in a measure is based on the hypothesized underlying trait (Fornell & Larcker, 1981). Results of the CFA for the full measurement model indicated acceptable fit, reflecting that the model fits the data reasonably well. Composite reliabilities of measurement model constructs and the overall measurement model analysis are presented in Tables 4.12 and 4.13 respectively.

**Table 4.12. Composite reliabilities of measurement model constructs (N = 211)**

<table>
<thead>
<tr>
<th>Construct</th>
<th>Composite Reliability</th>
<th>Coefficient Alpha</th>
<th>Average Variance Extracted</th>
</tr>
</thead>
<tbody>
<tr>
<td>Community social capital</td>
<td>0.93</td>
<td>0.98</td>
<td>0.81</td>
</tr>
<tr>
<td>Community economic support</td>
<td>0.74</td>
<td>0.82</td>
<td>0.76</td>
</tr>
<tr>
<td>Community self-development efforts</td>
<td>0.91</td>
<td>0.91</td>
<td>0.81</td>
</tr>
<tr>
<td>Perceived community satisfaction</td>
<td>0.93</td>
<td>0.96</td>
<td>0.81</td>
</tr>
<tr>
<td>Community entrepreneurial climate</td>
<td>0.93</td>
<td>0.95</td>
<td>0.81</td>
</tr>
<tr>
<td>Community attachment</td>
<td>0.84</td>
<td>0.89</td>
<td>0.73</td>
</tr>
<tr>
<td>Community support</td>
<td>0.90</td>
<td>0.92</td>
<td>0.71</td>
</tr>
<tr>
<td>Community economic vitality</td>
<td>0.86</td>
<td>0.86</td>
<td>0.60</td>
</tr>
</tbody>
</table>

**Table 4.13. Full Confirmatory Factor Analysis of Measurement Model (N = 211)**

<table>
<thead>
<tr>
<th>Construct</th>
<th>Composite Observed Variables</th>
<th>β</th>
<th>t-value</th>
<th>S.E</th>
<th>Standardized Residual Variance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Community social capital</td>
<td>CSC1</td>
<td>0.96</td>
<td>116.34**</td>
<td>0.008</td>
<td>0.08</td>
</tr>
<tr>
<td></td>
<td>CSC2</td>
<td>0.92</td>
<td>72.90**</td>
<td>0.013</td>
<td>0.16</td>
</tr>
<tr>
<td></td>
<td>CSC3</td>
<td>0.93</td>
<td>83.38**</td>
<td>0.011</td>
<td>0.13</td>
</tr>
</tbody>
</table>
Table 4.13 (continued)

<table>
<thead>
<tr>
<th>Construct</th>
<th>Composite Observed Variables</th>
<th>β</th>
<th>t-value</th>
<th>S.E</th>
<th>Standardized Residual Variance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Community economic support</td>
<td>CN1</td>
<td>0.90</td>
<td>54.22**</td>
<td>0.017</td>
<td>0.19</td>
</tr>
<tr>
<td></td>
<td>CN2</td>
<td>0.86</td>
<td>40.05**</td>
<td>0.021</td>
<td>0.27</td>
</tr>
<tr>
<td></td>
<td>CN3</td>
<td>0.86</td>
<td>41.35**</td>
<td>0.021</td>
<td>0.26</td>
</tr>
<tr>
<td></td>
<td>CN4</td>
<td>0.88</td>
<td>47.28**</td>
<td>0.019</td>
<td>0.23</td>
</tr>
<tr>
<td></td>
<td>DEVSUC1</td>
<td>0.74</td>
<td>16.41**</td>
<td>0.045</td>
<td>0.46</td>
</tr>
<tr>
<td></td>
<td>DEVSUC2</td>
<td>0.94</td>
<td>22.50**</td>
<td>0.042</td>
<td>0.12</td>
</tr>
<tr>
<td>Community self-development efforts</td>
<td>CSD1</td>
<td>0.87</td>
<td>42.58**</td>
<td>0.021</td>
<td>0.24</td>
</tr>
<tr>
<td></td>
<td>CSD2</td>
<td>0.86</td>
<td>39.40**</td>
<td>0.022</td>
<td>0.26</td>
</tr>
<tr>
<td></td>
<td>CSD3</td>
<td>0.86</td>
<td>37.90**</td>
<td>0.023</td>
<td>0.27</td>
</tr>
<tr>
<td>Perceived community satisfaction</td>
<td>CS1</td>
<td>0.93</td>
<td>80.65**</td>
<td>0.012</td>
<td>0.14</td>
</tr>
<tr>
<td></td>
<td>CS2</td>
<td>0.94</td>
<td>95.01**</td>
<td>0.010</td>
<td>0.11</td>
</tr>
<tr>
<td></td>
<td>CS3</td>
<td>0.91</td>
<td>69.18**</td>
<td>0.013</td>
<td>0.16</td>
</tr>
<tr>
<td>Community entrepreneurial climate</td>
<td>CEC1</td>
<td>0.93</td>
<td>79.62**</td>
<td>0.012</td>
<td>0.13</td>
</tr>
<tr>
<td></td>
<td>CEC2</td>
<td>0.92</td>
<td>71.72**</td>
<td>0.013</td>
<td>0.15</td>
</tr>
<tr>
<td></td>
<td>CEC3</td>
<td>0.91</td>
<td>60.94**</td>
<td>0.015</td>
<td>0.18</td>
</tr>
<tr>
<td>Community attachment support</td>
<td>ATCH1</td>
<td>0.84</td>
<td>32.83**</td>
<td>0.025</td>
<td>0.30</td>
</tr>
<tr>
<td></td>
<td>ATCH2</td>
<td>0.91</td>
<td>46.68**</td>
<td>0.020</td>
<td>0.17</td>
</tr>
<tr>
<td>Community support</td>
<td>SUPP1</td>
<td>0.86</td>
<td>38.41**</td>
<td>0.022</td>
<td>0.26</td>
</tr>
<tr>
<td></td>
<td>SUPP2</td>
<td>0.87</td>
<td>40.87**</td>
<td>0.021</td>
<td>0.25</td>
</tr>
<tr>
<td></td>
<td>SUPP3</td>
<td>0.84</td>
<td>35.32**</td>
<td>0.024</td>
<td>0.29</td>
</tr>
<tr>
<td>Community economic vitality</td>
<td>VITAL1</td>
<td>0.78</td>
<td>23.81**</td>
<td>0.033</td>
<td>0.39</td>
</tr>
<tr>
<td></td>
<td>VITAL2</td>
<td>0.80</td>
<td>25.63**</td>
<td>0.031</td>
<td>0.36</td>
</tr>
<tr>
<td></td>
<td>VITAL3</td>
<td>0.71</td>
<td>17.90**</td>
<td>0.040</td>
<td>0.50</td>
</tr>
<tr>
<td></td>
<td>VITAL4</td>
<td>0.81</td>
<td>26.63**</td>
<td>0.030</td>
<td>0.35</td>
</tr>
</tbody>
</table>

**p < .01

Full Confirmatory Factor Analysis of Measurement Model

Overall Model Fit

<table>
<thead>
<tr>
<th>Chi-square</th>
<th>df</th>
<th>p</th>
<th>Ratio χ²/df</th>
<th>CFI/TLI</th>
<th>RMSEA</th>
<th>SRMR</th>
</tr>
</thead>
<tbody>
<tr>
<td>468.18</td>
<td>288</td>
<td>≤ 0.01</td>
<td>1.63</td>
<td>0.97</td>
<td>0.05</td>
<td>0.03</td>
</tr>
</tbody>
</table>
Structural Model

The next phase of modeling involved estimation of structural parameters and testing hypothesized construct relationships (Refer to Figure 3). This analysis consisted of two latent variables — community social capital and community economic support — as exogenous variables, and six latent variables — community self-development, community entrepreneurial climate, perceived community satisfaction, community attachment, community support and community economic vitality — as endogenous variables. To address issues of complexity and statistical identification, average mean scores were used in analysis of the structural model, except for community economic support (a two factor model) and community economic vitality (four single indicators). A structural model with eight latent and 23 observed variables using item parceling was tested to examine the hypothesized relationships indicated in H1-H9.

Based on the analyses, squared multiple correlations ($R^2$) for endogenous variables ranged from 0.61 to 0.84. The results of the structural model analysis revealed that several of the hypothesized paths were as predicted. The beta weights were statistically significant at $p < .01$. Criteria used for assessing model fit analyses showed that all indices yielded fit of 0.95 or greater for CFA, 0.06 or below for RMSEA, and 0.08 or below for SRMR (Hu & Bentler, 1999). Overall assessment of the structural model showed that the $\chi^2$ goodness-of-fit statistic was significant ($\chi^2 = 589.75, \ p \leq 0.01$), and the model had fair fit based on established indices (CFI = 0.95, RMSEA = 0.07, SRMR = 0.07). The model also possessed a ratio of $\chi^2$/df = 1.86, demonstrating a reasonably good model fit. Wheaton (1987) argued that a value of 2 or less indicated a good model fit. Strong and distinct item factor loadings were produced for all model dimensions. Standardized path coefficients and $t$-ratios for each path along with the fit indices are presented in Table 4.14. Next, the results of hypothesis testing are discussed as indicated by parameter estimates for the original structural model. A revised model is then proposed and tested to enhance the fit of the structural model.
Figure 2. Measurement Model: Social capital, self-development efforts, perceived community satisfaction, community entrepreneurial climate, satisfaction outcomes and community economic vitality

- Perceived community social capital
  - Community self-development
    - Perceived community satisfaction
      - Community attachment
        - Community support
          - Community economic vitality
    - Community entrepreneurial climate
      - Community economic support
        - Perceived community social capital
          - Community self-development
            - H1 (+)
            - H3 (+)
            - H4 (+)
            - H5 (+)
            - H6 (+)
            - H7 (+)
            - H8 (+)
            - H9 (+)

Hypothesis Testing

The majority of research assumptions for hypothesized relationships were supported in the original structural model (refer to Figure 3). Hypothesis testing results are presented in sequential order, beginning with the relationship between perceived community social capital and self-development efforts. Perceived community social capital (H1) was hypothesized to have an effect on self-development efforts in the community. A positive and significant relationship was found between perceived community social capital and self-development efforts ($\beta = .62; p < .01$). This supports the association of social capital and self-development efforts, in that successful self-development effort is highly dependent on the community’s strong social relationships. Sharp et al. (2002) found that community self-development efforts rely on the utilization of local resources and social relations in a community; lack of involvement at a community level will likely weaken the implementation of self-development efforts in a community.

Community economic support was positively related to community social capital, supporting H2a ($\beta = .85; p < .01$). This result indicates that perceived community social capital influences community economic support and is consistent with previous studies (Kilkenny et al., 1999; Miller, 2001; Niehm et al., 2008). Community economic support as an act derives from strong social capital which motivates someone to volunteer to provide economic support to the community. Community economic support is an element of community social responsibility that is vital for community sustainability (Niehm et al., 2008).

Local residents’ economic support was not found to have an effect on self-development efforts in the community ($\beta = .19; p > .05$) and therefore H2b was not supported. It was surprising to find that local residents’ economic support was not a predictor of the success of community self-development efforts. Thus, the success of community self-development efforts is not dependent solely on economic support from local residents.
In an effort to examine how self-development efforts influence perceived community satisfaction, community self-development attributes were assessed. Community self-development efforts are associated with quality of life attributes. Unexpectedly, self-development efforts were not found to be positively associated with local residents’ perceived community satisfaction ($\beta = .25; p > .05$), demonstrating low correlation between the constructs. The path demonstrated a marginal non-significant $p$-value of 0.06. Therefore, H3 was not supported.

Interestingly, this result contradicts findings from previous studies about the positive association between community environmental attributes and community satisfaction (Filkens et al., 1999; Insch & Florek, 2008). Community attributes include social, physical, environmental, and economic dimensions, and residents may perceive these dimensions at different degrees depending on the perceived importance of these attributes to their community’s well-being. However, this result may reflect and support findings from Goudy (1977) which claimed that community social relations possess a higher association with community satisfaction than other community attributes.

The fourth hypothesis (H4) proposed that a community’s social capital is associated with residents’ perceived satisfaction with the community. Previous studies identified that social relations serve as a fundamental resource in influencing community satisfaction (Filkens et al., 1999; Goudy, 1977). Communities with strong social capital are likely to feel greater satisfaction with their community (Goudy, 1977; Kilkenny et al., 1999). In this sense, social capital can potentially enhance community satisfaction and serve as an antecedent to community sustainability. A positive and significant relationship was indicated for H4 between community social capital and community satisfaction ($\beta = .41; p < .01$). This finding suggests that community social capital continually serves as a key factor in community satisfaction, particularly to rural residents. This supported relationship is consistent with previous studies on community satisfaction (Goudy, 1977; Kilkenny et al., 1999; Theodori, 2000).
One of the purposes of community self-development efforts is to help rural communities prosper with entrepreneurial activities (Korschning & Allen, 2004). Community self-development efforts were hypothesized to have an impact on local residents’ perceptions of rural community entrepreneurial climate (H5). A highly positive and significant relationship was found between self-development efforts and local residents’ perceptions of rural community entrepreneurial climate ($\beta = .92; p < .01$). The strong association revealed the vital role of self-development efforts in contributing to rural economic wealth through entrepreneurial activities. This suggests that community self-development efforts can potentially enhance a community's entrepreneurial climate and generate economic wealth for rural communities. The development of entrepreneurship contributes to innovation, job creation, and enhanced competitive advantage (Chatman et al., 2008). A community that encourages entrepreneurial activity is likely to produce economic activities that ultimately improve its residents’ quality of life.

The sixth hypothesis (H6) proposed that rural communities with a vibrant entrepreneurial climate have an effect on residents’ perceived satisfaction with the community. A positive and significant relationship is indicated for H6 between community entrepreneurial climate and local residents’ perceived satisfaction ($\beta = .32; p < .05$). This significant association implies that community entrepreneurial activities do in fact have the potential to influence and enhance community satisfaction. This result is supported by findings of Chatman et al. who ascertained that community entrepreneurial climate influences a community's success and enhances its residents' level of community satisfaction. An improved quality of life is associated with residents' satisfaction with the community (Insch & Florek, 2008).

Examining potential outcomes from community satisfaction is vital since they serve as an antecedent to community prosperity. The seventh hypothesis proposed that community satisfaction is related to attachment to the community (H7). The results revealed that community attachment was indeed positively related to community satisfaction ($\beta = .93; p < .01$). These results verified that
community satisfaction affects community attachment in that residents who are satisfied with the community are likely to actively work to sustain the community. These positive and significant results support those of Kasarda and Janowitz (1974) who found that strong ties with the community had a powerful impact on community satisfaction.

The eighth hypothesis (H8) links community attachment to community support. The hypothesized relationship (H8) was supported by the present model ($\beta = .90; \ p < .01$). Results of this study indicate that community attachment does have a strong effect on community support, and are consistent with previous studies (Gracia & Herrero, 2004; Kilkenny et al., 1999; Miller, 2001; Theodori, 2001). Residents who have lived longer in a community tend to exhibit stronger community support than people who have less time in the community. This result provides evidence of the strong association between community attachment and support.

Community support is essential for economic vitality. The sustainability of rural community depends on local resources in which support and involvement at a community level are useful for community to perform and grow. Thus, a significant relationship was proposed between community support and perceived economic vitality of a rural community (H9). Results support the hypothesis that community support is positively related to an increase in the economic vitality of rural communities ($\beta = .79; \ p < .01$). These results are supported by the findings of Korsching and Allen (2004), who found that active participation by residents along with support for business and other community based programs affect a community’s performance and contribute to community success.

The non-significant relationship between community economic support and community self-development efforts (H2b) and community self-development efforts and perceived community satisfaction (H3) may be related to the way the constructs were measured. Previous literature discussed the effect of community support in general rather than focusing on economic support in the form of contributions and local funds. Meanwhile, the non-support for H3 was unexpected given the previous studies that found certain community services like local government efforts and consumer
services appear to influence community satisfaction more than other attributes (Brown, 1993; Filkins et al., 1999). The lack of established measures in assessing constructs related to self-development and other forms of economic development variables may have contributed to the lack of support on H3.

Hence, further research is warranted to better understand the relationship between economic development attributes and perceived community satisfaction. Identifying factors that contribute to community satisfaction from a broader perspective and strengthening measures on economic development attributes would enable and enhance future findings associated with economic development initiatives.

Table 4.14. Hypothesis Test Results: Relationships between Community Social Capital, Self-Development Efforts, Perceived Community Satisfaction and Community Economic Vitality (N = 211)

<table>
<thead>
<tr>
<th>Hypotheses</th>
<th>Paths</th>
<th>β</th>
<th>t-value</th>
<th>S.E</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1</td>
<td>Social capital → Self-development</td>
<td>0.62</td>
<td>5.81**</td>
<td>0.107</td>
</tr>
<tr>
<td>H2a</td>
<td>Social capital → Economic support</td>
<td>0.85</td>
<td>36.57**</td>
<td>0.023</td>
</tr>
<tr>
<td>H2b</td>
<td>Economic support → Self-development</td>
<td>0.19</td>
<td>1.65</td>
<td>0.112</td>
</tr>
<tr>
<td>H3</td>
<td>Self-development → Community satisfaction</td>
<td>0.25</td>
<td>1.92</td>
<td>0.130</td>
</tr>
<tr>
<td>H4</td>
<td>Social capital → Community satisfaction</td>
<td>0.41</td>
<td>6.90**</td>
<td>0.060</td>
</tr>
<tr>
<td>H5</td>
<td>Self-development → Entrepreneurial climate</td>
<td>0.92</td>
<td>49.81**</td>
<td>0.018</td>
</tr>
<tr>
<td>H6</td>
<td>Entrepreneurial climate → Community satisfaction</td>
<td>0.32</td>
<td>2.78*</td>
<td>0.116</td>
</tr>
<tr>
<td>H7</td>
<td>Perceived community satisfaction → Community attachment</td>
<td>0.93</td>
<td>54.78**</td>
<td>0.017</td>
</tr>
<tr>
<td>H8</td>
<td>Community attachment → Community support</td>
<td>0.90</td>
<td>39.53**</td>
<td>0.023</td>
</tr>
</tbody>
</table>
Table 4.14. (continued)

<table>
<thead>
<tr>
<th>Hypotheses</th>
<th>Paths</th>
<th>$\beta$</th>
<th>$t$-value</th>
<th>S.E</th>
</tr>
</thead>
<tbody>
<tr>
<td>H9</td>
<td>Community support</td>
<td>0.79</td>
<td>21.84**</td>
<td>0.036</td>
</tr>
<tr>
<td></td>
<td>Economic vitality</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Latent Variables</th>
<th>$R^2$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social capital (CSC)</td>
<td>0.83</td>
</tr>
<tr>
<td>Self-development (CSD)</td>
<td>0.61</td>
</tr>
<tr>
<td>Economic support (EC)</td>
<td>0.73</td>
</tr>
<tr>
<td>Entrepreneurial climate (CEC)</td>
<td>0.83</td>
</tr>
<tr>
<td>Attachment (ATCH)</td>
<td>0.87</td>
</tr>
<tr>
<td>Economic vitality (VITAL)</td>
<td>0.62</td>
</tr>
<tr>
<td>Community support (SUPP)</td>
<td>0.80</td>
</tr>
</tbody>
</table>

Overall Model Fit

<table>
<thead>
<tr>
<th>Chi-square</th>
<th>df</th>
<th>$p$</th>
<th>Ratio $\chi^2$/df</th>
<th>CFI/TLI</th>
<th>RMSEA</th>
<th>SRMR</th>
</tr>
</thead>
<tbody>
<tr>
<td>589.75</td>
<td>312</td>
<td>$\leq 0.01$</td>
<td>1.89</td>
<td>0.95</td>
<td>0.07</td>
<td>0.07</td>
</tr>
</tbody>
</table>

Revised Model

An alternative model is recommended when the researcher’s initial model does not correspond well to the data (Kline, 2007). The revision of this model encompassed several approaches that involved evaluating factor loadings, standardized residuals, and modification indices. According to Kenny (1999), empirical tests such as modification indices and standardized residuals are used to re-specify the model. All re-specifications should be theoretically meaningful and ideally $a$ priori (Kenny, 1999). In this research, development of the revised model was guided by relevant theory, results from confirmatory factor analyses, diagnostic checks of the original structural model, and model modification indices. To improve the fit of the model, two non-significant paths with low loadings were eliminated from the model. Based on the model modification indices, a new path between community entrepreneurial climate and community support was added to the initial model.
Guided by both social capital theory and social embeddedness of economic activity (Coleman, 1988; Granovetter, 1985), the addition of a new path between community entrepreneurial climate and community support is consistent with findings from Kilkenny et al. (1999). These researchers identified a strong association between local business success and community support. The new path indicated that when the rural community is enhanced with a well developed infrastructure, this will promote business activities that in turn will attract local residents as well as small entrepreneurs to the community. When rural community has an attractive business climate, this will potentially influence local residents to support local businesses and community. Community support is demonstrated by local residents’ positive attitudes and behaviors such as shopping at local retailers and promoting local businesses and communities. Strong community support aids to strengthen local businesses and foster community sustainability (Korschning & Allen, 2004).

Although the model fit indices did not show large improvement with these path changes, this step moderately improved the chi-square value and correlation among the variables. The process did allow for a more parsimonious model of self-development, community entrepreneurial climate, community satisfaction, and community support.
Figure 3. Structural hypothesized model showing path coefficients between community social capital, self-development efforts, perceived community satisfaction, community entrepreneurial climate, satisfaction outcomes and community economic vitality.

![Structural hypothesized model diagram](image-url)
Compared to the primary structural model, some paths showed stronger correlations in the revised model; these include relationships between social capital and self-development efforts (Original Structural Model: $\beta = .62$; Revised Structural Model: $\beta = .79$), social capital and community satisfaction (Original Structural Model: $\beta = .41$; Revised Structural Model: $\beta = .47$) and entrepreneurial climate and community satisfaction (Original Structural Model: $\beta = .32$; Revised Structural Model: $\beta = .50$). The revised model had an improved chi-square ($\chi^2 = 542.01$) compared to the initial model ($\chi^2 = 589.75$). Additionally, all paths are highly significant ($p < .01$). Although a significant chi-square was produced ($\chi^2 = 542.01, df = 312, p \leq 0.01$), overall model fit remained within the acceptable-to-good fit ranges (CFI = 0.96, RMSEA = 0.06, SRMR = 0.06). The revised model also showed a decrease in the ratio of ($\chi^2/df = 1.73$) compared to the initial structural model ($\chi^2/df = 1.89$). Squared multiple correlations ($R^2$) for latent constructs ranged from 0.62 to 0.84. An overall improved of model fit indices was attained. Standardized path coefficients and $t$-ratios for each path along with the fit indices are presented in Table 4.15.

Table 4.15. Revised Structural Model and Hypothesis Test Results: Community Social Capital, Self-Development Efforts, Perceived Community Satisfaction and Community Economic Vitality ($N = 211$)

<table>
<thead>
<tr>
<th>Hypotheses</th>
<th>Paths</th>
<th>$\beta$</th>
<th>$t$-value</th>
<th>S.E</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1</td>
<td>Social capital $\rightarrow$ Self-development</td>
<td>0.79</td>
<td>25.19**</td>
<td>0.031</td>
</tr>
<tr>
<td>H2</td>
<td>Social capital $\rightarrow$ Economic support</td>
<td>0.86</td>
<td>38.45**</td>
<td>0.022</td>
</tr>
<tr>
<td>H3</td>
<td>Social capital $\rightarrow$ Community satisfaction</td>
<td>0.47</td>
<td>8.43**</td>
<td>0.056</td>
</tr>
<tr>
<td>H4</td>
<td>Self-development $\rightarrow$ Entrepreneurial climate</td>
<td>0.92</td>
<td>51.95**</td>
<td>0.018</td>
</tr>
<tr>
<td>H5</td>
<td>Entrepreneurial climate $\rightarrow$ Community satisfaction</td>
<td>0.50</td>
<td>8.84**</td>
<td>0.056</td>
</tr>
</tbody>
</table>
Table 4.15. (continued)

<table>
<thead>
<tr>
<th>Hypotheses</th>
<th>Paths</th>
<th>$\beta$</th>
<th>$t$-value</th>
<th>$S.E.$</th>
</tr>
</thead>
<tbody>
<tr>
<td>H6 Community satisfaction</td>
<td>Community attachment</td>
<td>0.89</td>
<td>39.75**</td>
<td>0.022</td>
</tr>
<tr>
<td>H7 Community attachment</td>
<td>Community support</td>
<td>0.42</td>
<td>5.93**</td>
<td>0.070</td>
</tr>
<tr>
<td>H8 Community support</td>
<td>Economic vitality</td>
<td>0.81</td>
<td>24.18**</td>
<td>0.033</td>
</tr>
<tr>
<td>H9 Entrepreneurial climate</td>
<td>Community support</td>
<td>0.56</td>
<td>8.22**</td>
<td>0.068</td>
</tr>
</tbody>
</table>

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

Overall Model Fit

<table>
<thead>
<tr>
<th>Chi-square</th>
<th>$df$</th>
<th>$p$</th>
<th>Ratio $\chi^2/df$</th>
<th>CFI/TLI</th>
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</tr>
</thead>
<tbody>
<tr>
<td>542.01</td>
<td>312</td>
<td>$\leq .01$</td>
<td>1.73</td>
<td>0.96</td>
<td>0.06</td>
<td>0.06</td>
</tr>
</tbody>
</table>

Summary

The analyses in Chapter 4 revealed the importance of community perceptions of social capital on self-development efforts in rural communities. Community social capital is an important resource for community development (Putnam, 1993). A significant new finding established from the analyses was the strong association between the community’s entrepreneurial climate and self-development efforts. The support of a community’s entrepreneurial climate on perceived community satisfaction indicated that self-development played a key role in enhancing rural residents’ social and economic needs. Further, support of a relationship between social capital and perceived community satisfaction demonstrated that rural residents perceived social attributes that not only affect their attachment but also their support of the community. Community support was significantly associated with rural economic vitality, in which, the associations lead to community prosperity.
The next chapter provides a summary of the research findings. Implications and limitations are discussed. As a conclusion, several potential future research areas derived from this study are presented.
Figure 4. Revised structural model showing path coefficients between community social capital, self-development efforts, perceived community satisfaction, community entrepreneurial climate, community support, and community economic vitality.
CHAPTER 5. SUMMARY AND CONCLUSIONS

The growing involvement of rural communities in self-development efforts has led to an increased need to understand factors that influence the success of such programs (Crowe, 2006; Iowa Department of Economic Development, 2006). In the present study, perceived satisfaction addressed residents’ evaluation of self-development program benefits and resulting community attributes. Given the emergence of self-development programs as a meaningful approach for enhancing rural community sustainability, and the role of community members in the success of such grass roots efforts, the importance of understanding the effect of self-development on residents’ satisfaction becomes of obvious importance.

Rural development is especially vital in rural areas where "brain drain" and the effects of the economic downturn have had significant negative impacts on community vitality (Hassebrook, 2010). To overcome economic restructuring and out-migration issues, rural communities have to find innovative ways to revitalize and stimulate their local economies (Hassebrook, 2003; Iowa Department of Economic Development, 2006; Paddison & Calderwood, 2007). Identifying effective development strategies that could resolve or reduce the social and economic challenges in rural areas is of urgent importance. While research on community self-development has been moderate (Crowe, 2008; Crowe, 2006; Flora & Allen, 2006; Sharp et al., 2002), understanding of the impact of self-development on perceived life quality and satisfaction for rural residents is limited and warrants further investigation (Crowe, 2008). This study was undertaken to address the aforementioned research gaps concerning self-development efforts and to provide guidance for the development and implementation of effective rural development programs.

Summary of Research

The purpose of this study was to advance understanding of the impact of self-development efforts on the perceived community satisfaction of rural residents. This study
specifically addressed community and business revitalization activities of self development programs which are have been shown to be influential factors on community perceptions and satisfaction (Crowe, 2008). Community self-development efforts focus on the use of internal resources and human capital and require strong social relations to ensure the attainment of program goals. This study also examined the extent to which social capital influences rural community residents’ perceptions regarding community self-development efforts. Self-development is also a viable approach for providing opportunities for rural communities to enhance their entrepreneurial climate.

Another aim of the study was to assess the effect of self-development efforts on rural communities' entrepreneurial climates. Satisfaction outcomes were examined by measuring local residents’ perceived satisfaction in the forms of community attachment and community support, which contribute to community economic vitality. A research model was empirically tested in multiple rural Iowa communities that had different lengths of engagement in self-development efforts.

Conclusions

This study's overarching goal was to empirically investigate the influence of community social capital on self-development efforts and its impact on perceived community satisfaction, community entrepreneurial climate, and satisfaction outcomes including community attachment, support, and vitality. One of the major findings obtained from this study was the role of social capital in relation to community self-development efforts in rural communities. Findings revealed that community perceptions of social capital are an important predictor of community self-development efforts in rural communities, supporting H1. Social capital was clearly demonstrated by the majority of rural community residents, reflecting the strong influence of social capital (as measured by commitment, collective action, reciprocity, and participation in this study) in rural areas.
The strong association between local residents’ perceptions of social capital and self-development efforts shows that rural communities in Iowa perceive social capital as having a significant influence on successful economic development. Social capital serves as social-structural resources that focus on good relations, collective goods, trust, norms, cooperative actions, reciprocity and participation among both residents and their institutions (Coleman, 1988). These different entities together comprise social networks of relationships that assist in promoting actions that benefit the community (Coleman, 1988). This study demonstrated that social strengths possessed by rural communities influenced community self-development efforts that, in turn, promoted enhancement of community entrepreneurial climate and sustainability. Social networks and trust serve as important elements in promoting, generating and sustaining economic growth and development (DeFilippis, 2001). The strong association of local residents’ perceptions of social capital on community self-development efforts also suggests that self-development is increasingly viewed as a community responsibility, and that a lack of community resources such as human and social capitals will impede self-development efforts. Self-development aids are not only improving the appearance and amenities in a community, but also nurture social relations that are vital for a community success (Crowe, 2006; Flora & Allen, 2006; Sharp et al., 2002). Findings of this study are consistent with previous literature that suggested social relations serve as a primary resource for successful self-development efforts in rural areas (Crowe, 2008; Korschning & Allen, 2004; Sharp et al., 2002).

Residents of rural communities with high social capital are more likely to contribute to their community socially and economically. The support of H2a, which posited the influence of social capital on community economic support, indicates that social capital enhances a community’s social responsibility, in the sense of providing economic support for activities that promote the community's well-being. Several dimensions of social capital were assessed in this study, including commitment, collective action, reciprocity, and participation. These dimensions
have a strong effect on local residents’ economic support which in turn will bring about community prosperity.

This result is consistent with previous studies that found social capital dimensions such as commitment and support are complementary factors that influence community social responsibility of businesses in small and rural communities (Besser & Miller, 2001; Niehm et al., 2008). The supportive relationship between community social capital and community economic support is evidence of the role of social capital in shaping local residents' attitudes towards providing economic support for self-development efforts. Thus, social capital not only contributes to the success of self-development efforts, but also enhances community economic support.

One of the important goals of this study was to examine the association between self-development efforts and perceived community satisfaction (H3). The non-support for this proposed hypothesis may be due to differing expectations held by local residents regarding such efforts. Self-development efforts are defined as community economic development initiatives that in general aim to increase the overall competitiveness of rural communities. Since self-development efforts are community-based programs that are typically conducted in phases and usually require a period of time to complete, the impact may not be clear among local residents. Further, self-development programs focus on change over time in which a long term commitment from local residents is needed for such programs to conclude successfully (Sharp et al., 2002).

The conflicting views of what local residents want and expect of their community makes it difficult to define and understand local residents’ desires (Filkins et al., 1999; Moss & Grukenmeyer, 2010). The difference in expectations between local institutions and community residents may further lead to differing evaluations of the attributes of self-development efforts (Moss & Grukenmeyer, 2010). Conceivably, the effects of self-development efforts may be of more interest to policy makers, community development specialists, and community leaders, as they are responsible for overall community enhancement, than to community residents.
themselves. Community residents may not view the effects of self-development as carrying the same importance as do local institutions.

To meet community expectations that lead to satisfaction, it is crucial for community developers to review their development policy by taking into consideration aspects that not only focus on beautification and uplift of community’s image, but also identify strategies that can boost local economy and enhance residents’ quality of life are important. Identifying effective methods to engage residents provide challenges to community economic developers (Moss & Grukenmeyer, 2010). In response to today’s global economy and economic restructuring, rural residents may perceive self-development efforts as a way of boosting their local economy.

Economic attributes such as job opportunities and level of income serve as an indicator of community success (Crowe, 2008). Community developers must continually focus on effective development strategies that could provide a competitive business environment for rural community satisfaction. Policy makers should ensure that self-development efforts contribute to the overall development of community infrastructure and community entrepreneurial climate. The results of this study imply that to meet community satisfaction, community economic developers must select strategies that will improve the local economy, particularly strategies that could generate local employment and income. Enhancing rural economic wealth through entrepreneurial activities contributes to community resiliency (Niehm et al., 2008).

One of the most meaningful findings derived from this study was the significant relationship between community self-development efforts and community entrepreneurial climate (H5). Consistent with previous research, results of this study provide evidence of self-development efforts as an important development strategy that can foster entrepreneurial activities in small and rural communities (Crowe, 2008; Korsching & Allen, 2004). Self-development efforts involve revitalization approaches that provide opportunities for rural communities to implement innovations and changes to their existing commercial districts which
ultimately affect their residents' quality of life. The positive relationship between self-development efforts and community entrepreneurial climate supports other research in demonstrating the key role of entrepreneurship as a development strategy for economically disadvantaged regions (Chatman et al., 2008; Hassebrook, 2007; Korsching & Allen, 2004). Increased participation of rural communities in self-development efforts could enable small, economically disadvantaged and remote communities to reverse their stagnant economic conditions by generating wealth and jobs through locally owned businesses.

Rural communities that are economically disadvantaged and remote in location, especially those with limited options for industrial economic development, have engaged in community self-development efforts to improve social conditions, physical infrastructure, economic opportunities, civic engagement, and local organizational structure (Sharp et al., 2002; Sutton, 2010). Findings from this study support that community self-development efforts play a major role in creating rural community vitality (Crowe, 2006; Sharp et al., 2002). Thus, it is important for economic developers to continually nurture rural communities with community self-development efforts that can help to enhancing the competitiveness of rural retail sectors as well as communities.

Also unique to this research is the finding of a significant effect of entrepreneurial climate on rural residents' perceived community satisfaction (H6). The ability of a community to provide good infrastructure is closely linked with a community’s quality of life which in turn enhances community satisfaction (Deller, Tsai, Marcouiller, & English, 2001). This research indicates that local residents' perceived satisfaction is linked with an enhanced community entrepreneurial climate. Thus, rural communities that can successfully attract businesses and offer shopping and other amenities that have a positive impact on local residents’ quality of life may be more able to prosper and sustain over time.
The positive association between community entrepreneurial climate and local residents’ perceived satisfaction reflects the importance of community economic well-being to community satisfaction. This finding is in contrast to that found in previous research (Chatman et al., 2008) that showed a lack of support between business owners and community entrepreneurial climate. Community characteristics are an important component of a community success (Runyan & Huddleston, 2006). Communities that are able to perform economically are likely to demonstrate community satisfaction because residents gain economic wealth from increased entrepreneurial activities. The aim of self-development efforts is to increase rural communities’ competitiveness. The positive association between community entrepreneurial climate and perceived community satisfaction also demonstrates the existence of an indirect effect of community self-development efforts on perceived community satisfaction through community entrepreneurial climate. This result indicates that local residents were satisfied with self-development efforts when such programs enhanced the community entrepreneurial climate and resulted in increasing the economic well-being of the community.

The final objective of this study was to examine potential satisfaction outcomes as a result of residents’ perceived satisfaction with the community. Community satisfaction was found to be a precursor to community attachment. Responses from participants revealed that the majority of respondents had lived longer than 10 years in the community, reflecting their strong attachment to the community. Indeed, community residents who had lived there more than 10 years demonstrated higher mean scores on their satisfaction, support, and attachment to the community than people who had lived there less than 10 years. This implies that community attachment is closely associated with community satisfaction, which ultimately influences residents’ community support.

This study also revealed that community attachment affects community support in that residents who have a strong attachment to the community tend to support their local retail and
community programs. These findings parallel other research in demonstrating the influence of community attachment in determining community support (Besser & Miller, 2001; Gracia & Herrero, 2004). In addition to the finding that community self-development efforts enhance the local entrepreneurial climate, this research offers evidence supporting a positive link between community support and economic vitality in rural communities.

Community support is essential to community success and sustainability. Support from community residents is demonstrated in various ways that include shopping at local stores, promoting local businesses, and taking part in community programs. Community residents serve as a vital resource that sustains local communities (Sutton, 2010). In enabling rural communities to move ahead and nurture themselves, community support and alliances are crucial. Economic development programs are increasingly seen as a local responsibility (Crowe, 2008). Lack of community support would deflate self-development strategies and negatively affect a rural community’s sustainability. Community resources that refer to local residents themselves aid in generating income for rural communities; therefore, support from residents of the community has the potential to contribute to rural economic vitality.

**Implications**

The findings of this research have a number of implications for rural community research and community development practice. The most notable implication is the evidence that self-development efforts are a viable tool for improving social infrastructure and an appropriate strategy for enhancing a rural community’s entrepreneurial climate. Consistent with previous studies, self-development is a practical option for rural communities wishing to enhance their social environment; in turn, the improvement of a community’s social environment adds to the sustainability of the local economic environment (Crowe, 2008; Sharp et al., 2002). Rural communities that have a dynamic social environment were found to have a positive influence on self-development activities (Flora & Flora, 1993; Sharp et al., 2002).
Entrepreneurship activities have been identified as a means of stimulating economic growth and development in underserved and low-income communities (Hassebrook, 2007; Robinson, Dassie, & Christy, 2004). Local businesses in rural communities are the backbone of economic activity and contribute significantly to the quality of life for rural residents (Drabenstott, 2010; Drabenstott & Henderson, 2006; Hassebrook, 2003; Paddison & Calderwood, 2007). Small businesses in rural areas have the potential to grow and become competitive if appropriate strategies are put in place to revitalize the rural community and enhance its attractiveness (Drabenstott, 2003; Hassebrook, 2003; Main Street Messenger, 2009). Thus, self-development efforts have the potential to increase rural areas' competitiveness by creating a flourishing entrepreneurial climate and boosting business activities.

The results of this study imply that community developers should work towards the improvement of local businesses and communities. Self-development strategies have great potential for improving local economic vitality by creating new businesses (Korsching & Allen, 2004). Steering committees, which should include community leaders, city hall, economic development specialists, Chamber of Commerce, and Main Street representatives, need to collaborate to develop short- and long-term strategic plans that focus on generating rural economic wealth and opportunities. The enhancement of the entrepreneurial climate of a rural community not only engenders income, but also enhances residents’ quality of life. Quality of life reflects community well-being in relation to the social and economic values associated with a community (Mojica, Gebremedhin, & Schaeffer, 2010). Therefore, self-development efforts need to focus on providing a well-equipped infrastructure to support local entrepreneurs.

Such a strategy enables rural communities to improve their economic conditions by creating wealth and jobs through locally owned businesses. The results of this study suggest that economic developers and planners should continually reinforce self-development activities in rural and small communities. Rural economic developers must implement a viable policy that
includes strategic goals and effective promotion of social relationships through economic development programs or activities (Robinson, Dassie, & Christy, 2004). Strengthening the social infrastructure and entrepreneurial climate of a rural community will thus lead to positive returns that ultimately enhance the community's economic sustainability.

Findings from this study also provide evidence of the role that self-development efforts can play in promoting “localization” efforts as a marketing strategy for rural communities’ sustainability and competitiveness. Self-development not only enhances the local economy directly, but at the same time it promotes localization as an effective marketing approach. Localization is a strategic concept well-known in business and management literature that stresses the importance of local resources in fostering competitive advantage (Porter, 1990). Self-development can be a useful part of a localization effort that addresses community development, identity, and place making (Coca-Stefaniak et al., 2010). Self-development efforts must nurture and expand the capacity of local small businesses and communities.

Revitalization efforts that encompass programs such as community and business revitalization, historic preservation for tourism, building rehabilitation, business recruitment, and small business assistance are capable of sustaining rural community competitiveness, enhancing community attractiveness, and boosting social and economic advantages to local residents. Downtown business revitalization strategies offer social and economic advantages by providing a place where local residents can gather and local businesses can thrive (Moss & Grunkemeyer, 2010). Community developers must ensure that any self-development strategy imposed on a rural community will portray that community as a vibrant and sustainable place that interconnects the social, environmental, and economic interests of the community. A sustainable economic growth strategy entails improvement of the business sector (Porter, 1995).

This study's findings indicate that rural residents are highly supportive of and concerned with development programs in their community. The strong support displayed by rural
communities towards local development efforts should be taken seriously by community
developers and local policy makers in guiding future rural development. In line with self-
development efforts, policy makers and economic development specialists need to focus on
factors with which residents are deeply concerned (such as economic well-being of the
community) and on how self-development can advance the rural economic situation.
Implementing economic development strategies that can benefit a community's citizens will
ensure that a development strategy is both economically and environmentally sustainable (Crowe,
2008). Sustainable goals of an economic development strategy include the creation of jobs and
raising residents’ income (Moss & Grunkemeyer, 2010). These attributes may in turn lead to an
increase in perceived community satisfaction.

This also suggests that economic developers and local businesses need to correctly
identify factors with which residents are highly concerned, if they wish to ensure that the
community will continue to receive support from local residents. This supports findings of other
studies in the field (Gursoy, Jurowski, & Uysal, 2002; Nunkoo & Ramkissoon, 2011).
Development strategies that improve rural residents’ economic opportunities are likely to bring
advantages for rural vitality and sustainability. Gursoy et al. noted that identifying and exploiting
factors that influence community support would help development projects perform and succeed.
Local residents' support for and concern with their community and its development are noted in
the following quotes from the survey:

“I am very excited about the improvements being made and looking forward to see more
in the future”. “Small rural communities face an ever more difficult future as young
people leave rural areas in search of employment opportunities and funding opportunities
dwindle during this economic crisis. Investigating effective strategies that could help to
sustain and enhance rural communities’ competitiveness would solve this devastating
issue affecting rural areas”. 
The above quotes demonstrate the interest and support of local residents toward community economic development programs. Local residents’ perceptions are important for a community economic development success (Sutton, 2010). Therefore, it is vital for development specialists to understand community expectations in order to make such programs successful in improving social relations in communities and encourage more economic activities in the community.

Limitations

Since this study targeted rural communities that have experienced the impact of self-development efforts, a purposive sampling method was used. This sampling method somewhat limits the generalization of findings. However, despite the fact that purposive sampling constrains the external validity of the findings, Topp, Barker, and Degenhardt (2004) suggest that a purposive sample is still relatively representative of the sample population and appropriate for studying phenomenon where respondents need to have a particular set of prior experiences. Rural community residents who participated in the study are likely to represent the whole population of rural community residents. Hence, external validity of the findings is likely. Conversely, the use of simple random sampling reduces selection bias since every participant is selected independently of every other participant and has an equal probability of selection (Malhotra, 2007). The low response rate (12%) demonstrates a large number of non-responses. However, no formal test was conducted to define the non-response bias.

Seven rural communities in Iowa were selected to participate in this study, which lessens the conclusiveness of the findings. At present, there are approximately 24 small rural Iowa communities (population 10,000 or less) involved in community and business revitalization efforts (Iowa Department of Economic Development, 2010). A future study that included all these communities as well as using a national sample would increase the generalizability of the study and better our understanding of the impact of such development on rural communities in
Iowa. Despite these limitations, this study's selection of rural communities with different years of participation (more than three years vs. three years or less) may have contributed to a more diverse sample for the study.

**Future Research**

Self-development has been applied extensively as an economic development strategy to improve economic vitality in the rural regions of America. To better evaluate the robustness of this study's findings, further investigation into the impact of self-development on rural Midwestern communities' entrepreneurial climate is warranted. Such a study could examine whether the impacts of self-development on community entrepreneurial climate differ among rural communities in the Midwest. This future study might also be able to clarify the role of social capital in enhancing community economic development in rural regions of the U.S. Additionally, future research should include towns with more diverse population bases or larger populations, younger communities, or urban communities. There has been, over the years, growth in the Hispanic/Latino population in communities in rural Iowa. Thus, it would be interesting to examine how these new immigrants perceive the benefits resulting from self-development efforts.

Social capital theory has been highly recognized as social structures that help to promote economic growth in which community members - both individual and business - interact in win-win relationships based on mutual benefit and reciprocity (DeFilippis, 2001; Woodhouse, 2006). Related studies on social capital in developing countries would be useful to demonstrate to what extent social capital can generate social relations that contribute to economic development of the rural community. Thus, a parallel study investigating the role of social capital towards rural development in developing countries is warranted to test the transferability of the research model, social capital theory, and the self development approach to community development. Such studies could provide a new avenue for future research that could ultimately enhance the robustness of the study.
Findings from this study suggested the existence of an indirect relationship between community self-development efforts and perceived community satisfaction through community entrepreneurial climate. Investigation of other factors that influence community entrepreneurial climate would enable us to understand the relationships between self-development efforts, community entrepreneurial climate, and perceived community satisfaction. The influence of self-development efforts on a rural community's entrepreneurial climate offers evidence of how important it is for rural communities to sustain self-development activities as a path to increasing rural economic vitality. The revised model suggests that community entrepreneurial climate is positively associated with community support. A community with a vibrant entrepreneurial climate is likely to attract local residents which in turn will enhance their support to the community. A strong support system is vital for entrepreneurs’ success (Markley, 2007). Past research has focused primarily on community support and small business success (Besser & Miller, 2001; Miller et al., 2003; Niehm et al., 2008).

Evaluation of the relationship between community entrepreneurial climate and community support facilitates an understanding of such interrelationships while providing new possibilities for economic developers in formulating plans for community development in rural areas. The influence of community entrepreneurial climate on community support provides the evidence that to gain support from local residents, it is essential for community economic development to revitalize the community that not only could enhance local residents’ quality of life, but also provide opportunities for the community to perform and sustain economically. When a community is enhanced with an attractive business climate, local residents are likely to perceive satisfaction in which this in turn will increase their support to the community. Community support significantly contributes to small business success (Dabson, 2001; Kilkenny et al., 1999; Kim & Stoel, 2010). Community support in terms of shopping at local stores, promoting local
retailers, and promoting community development programs are likely to aid in generating economic wealth in rural areas.

This promising path for future research could help economic developers recognize and address a rural community’s infrastructure weaknesses that may disrupt entrepreneurial activities. Giving disadvantaged and low-income communities a healthier entrepreneurial climate could generate substantial amounts of local income, thus increasing rural community vitality. Another interesting research that can be explored in the future was the relationship between self-development and community attachment and support. This study's model did not directly measure the effect of self-development on community attachment and community support. Self-development involves the revitalization of local businesses and communities; restoration of old buildings in order to foster a sense of community identity is one approach (Flora et al., 1992; Main Street Messenger, 2009). Therefore, self-development attributes are likely to be strongly associated with community attachment and support. A clear comprehension of this relationship would aid community developers in evaluating their existing development approach and policy, and better equip them to create a rural community image and identity which will form part of an overall localization strategy; this in turn will ultimately lead to community retention and support.

Localization as a marketing strategy for businesses in small communities is a popular concept that has been widely applied in the area of marketing (Porter, 1990). Localization efforts not only enhance community attractiveness but also generate income for the community (Coca-Stefaniak et al., 2010). When community attractiveness is enhanced, residents are more likely to shop at and support local stores. Localization emphasizes both national and local conditions that offer a competitive advantage (Porter, 1990). Since the goal of self-development efforts is to enhance both community and business competitiveness, future research that investigates the effectiveness of self-development as a localization effort that boosts community attractiveness is warranted. An investigation into local residents’ attitudes towards retail and services attributes
resulting from self-development efforts would also offer interesting findings that would capture residents' attitudes, behaviors, and perceptions of local retailers in their community.

Future research could also explore whether self-development is useful as a localization effort in the marketing strategy of businesses in small rural communities. The ability of a rural community to provide a sustainable environment for all of its residents fosters community attachment and support, which can be attained only when a community residents and local leaders have strong relationships (Moss & Grunkemeyer, 2010; Theodori, 2000). When local support is present, a community will thrive. Community economic developers, and community leaders need to collectively focus on transforming rural communities economy by encouraging the creation and development of entrepreneurs, and attractive business activities, in which these strategies have a significant impact on communities through job generation, high paying income, and quality of life.
## APPENDIX A: INITIAL CONFIRMATORY FACTOR ANALYSES BY MODEL CONSTRUCT

### Table 1. Confirmatory Factor Analysis and Reliabilities for Community Social Capital

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<td>0.008</td>
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  Item 4                |      |      |          |                                |
| CSD 2 – Parcel 2     | 0.93 | 0.019| 49.22**  | 0.14                           |
  Item 2                |      |      |          |                                |
  Item 5                |      |      |          |                                |
| CSD 3 – Parcel 3     | 0.86 | 0.023| 37.35**  | 0.26                           |
  Item 3                |      |      |          |                                |
  Item 6                |      |      |          |                                |

** p < .01

Overall Model Fit

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Construct                      Composite Reliability¹  Average Variance Extracted²
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Community Self-Development Efforts 0.91                  0.81


¹ Composite Reliability
² Average Variance Extracted
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Table 5. Confirmatory Factor Analysis and Reliabilities for Community Entrepreneurial Climate

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Overall Model Fit

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Construct

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### Overall Model Fit

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### Composite Reliability and Average Variance Extracted

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</tr>
</thead>
<tbody>
<tr>
<td>0.10</td>
<td>2</td>
<td>0.95</td>
<td>0.05</td>
<td>1.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
</tbody>
</table>

Construct | Composite Reliability¹ | Average Variance Extracted² |
----------------|------------------------|-----------------------------|
Community Economic Vitality | 0.86                  | 0.60                        |

Composite reliability¹ = (sum of standardized loading)² / (sum of standardized loading)² + sum of indicator measurement error

Average Variance Extracted² = (sum of squared standardized loading) / (sum of squared standardized loading + sum of indicator measurement error)
Community self-development serves as one of the premier development efforts emphasizing strategies to increase the competitiveness of rural community, rural retail performance, local economic base and enhance rural residents’ quality of life. We are working on a research project at Iowa State University that involves surveying rural community residents about self-development efforts in their community. In this survey research, we are gathering information to better understand if rural community residents’ needs and satisfaction are met as a result of participating in a community self-development program. As an invited participant in this study, you will gain valuable information that will aid to improve the community’s quality of life and further strengthen rural economy.

We cordially invite you to be part of our research. Your response is important to help us in identifying appropriate development strategies for rural communities that will not only meet rural community’s needs and satisfaction but also contribute to rural community vitality as a whole. Your individual responses will remain strictly confidential. Any information received will not be associated with you or your community. There are no foreseeable risks from participating in this study. Once you have completed the survey, please kindly mail your response to the stamped envelope that is included with the survey. If you wish to fill in the survey online, you can go to the following link by typing http://humansciences.rural.sgizmo.com/s3. To show our appreciation of your participation in this study, you will be entered into a $50 debit card drawing. To enter the drawing, you will be asked to give your email or home address at the end of the survey. Once we finish collecting the data, your email or home address will be randomly selected for the $50 debit card. The drawing will take place on March 31 2011. Winners will be notified via email or home address.

Your participation in this study is completely voluntary. You may skip any questions that you feel uncomfortable answering. By participating in the survey, you give the researchers your consent. The survey will take no longer than 20 minutes of your time. We greatly appreciate your participation. It is only the generous help of people like you that our research study can be successful. You are encouraged to ask questions at any time during this study. For further information about the study contact Rosita Tajuddin at rosita@iastate.edu, Phone: (515) 572-4154 or Linda Niehm at niehmlin@iastate.edu, Phone: (515) 294-1930. If you have any questions about the rights of research subjects or research-related inquiry, please contact the IRB Administrator, (515) 294-4566, IRB@iastate.edu, or Director, (515) 294-3115, Office for Responsible Research, 1138 Pearson Hall, Iowa State University, Ames, IA 50011.
Which community do you belong to?* (Is a **required** question)

- Elkader
- Greenfield
- Belle Plaine
- Charles City
- Mount Vernon
- Woodbine
- Sac City

**Section I: Community social environment**

Community social environment refers to community social relationships and values that play an important part in influencing rural community action towards community self-development programs. Several factors contributed to community social environment that encompass commitment, reciprocity, collective action, and participation. Community with strong social environment will influence the success of community self-development programs. Please answer the following questions as accurately as possible by selecting the right number (1 = Strongly disagree, 7 = Strongly agree). All information you provide will remain confidential.

<table>
<thead>
<tr>
<th>Strongly disagree</th>
<th>Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. The people of [MY TOWN] are willing to work together for the community.</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>2. The people of [MY TOWN] really care about the future of this community.</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>3. The people of [MY TOWN] volunteer for community development activities.</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>4. The people of [MY TOWN] are willing to contribute their energy, time and effort to help the community development project.</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>5. The people of [MY TOWN] are interested to know what goes on in community.</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>6. The people of [MY TOWN] are happy to help out the community if they need a hand.</td>
<td>1 2 3 4 5 6 7</td>
</tr>
</tbody>
</table>
7. The people of [MY TOWN] believe that what is good for their community is good for them.

8. The people of [MY TOWN] support community based projects and other local economic efforts that benefit the community.

9. The people of [MY TOWN] cooperate to support the local economy.

10. The people of [MY TOWN] are glad to do what they can to improve this community.

11. When something needs to get done in [MY TOWN], the community usually gets behind it.

12. Community clubs and organizations are interested in what is best for all residents.

13. The people of [MY TOWN] share the same vision for our community’s future.

14. The people of [MY TOWN] work together to make this a vibrant community.

15. The people of [MY TOWN] work together toward common goals.

16. The people of [MY TOWN] often attend local community events.

17. The people of [MY TOWN] are willing to become involved with the local community and are not focused only on their own lives.

18. The people of [MY TOWN] feel that they are part of a team at work.

19. The people of [MY TOWN] collaborate with organizations and associations in the community to help community programs.
## Section II: Community economic support

For the following questions, think about how the **social environment in your community** influences **community economic support** on **community self-development programs**. Community economic support refers to community strong support in providing economic assistance such as raising funds or organizing charitable events to support community self-development programs.

<table>
<thead>
<tr>
<th></th>
<th>Strongly disagree</th>
<th>Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>20. The people of [MY TOWN] work together to financially support community self-development programs.</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>21. The people of [MY TOWN] are generous in giving charitable donations to aid community self-development programs.</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>22. The people of [MY TOWN] normally organize fundraising and volunteering activities to help raise funds for community self-development programs.</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>23. The people of [MY TOWN] are willing to do whatever they can to financially support community self-development programs.</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
</tbody>
</table>

For the following questions, think about the impact of **community economic support** towards the success of **community self-development programs** in your community. Community economic support is a form of financial contributions that encompass self-donation, self-funds and other forms of economic assistance to aid community self-development programs.

<table>
<thead>
<tr>
<th></th>
<th>Strongly disagree</th>
<th>Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>24. Community self-development programs are not able to succeed without strong economic support from the community.</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>25. The availability of funds helps to enhance self-development programs in the community.</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
</tbody>
</table>
Section III: The relationship between community self-development programs and satisfaction

Several types of community self-development programs (e.g., downtown revitalization, local business assistance and expansion, and historic development for tourism) have been introduced in rural communities with the aim to improve rural economy. The following questions relate to your perception towards community self-development programs in your community. We would like to know to what extent community self-development programs have benefited rural communities.

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly disagree</th>
<th>Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>26. Community self-development programs (e.g., downtown revitalization, local business assistance and expansion, and historic development for tourism) help to enhance the attractiveness of local stores in our community.</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>27. The overall selection of merchandise offered by downtown retail stores meet the needs of customers in this community.</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>28. Most of downtown retail stores in [MY TOWN] offer quality merchandise with reasonable price.</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>29. Community self-development programs (e.g., downtown revitalization, local business assistance and expansion, and historic development for tourism) aid to create a new exciting store experience for people in [MY TOWN].</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>30. Community self-development programs (e.g., downtown revitalization, local business assistance and expansion, and historic development for tourism) have succeeded in creating a new look for the community and businesses districts in our community.</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>31. Overall, community self-development programs assist to improve the quality of life in the community.</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
</tbody>
</table>

The following questions relate to the effect of community social environment on community satisfaction. For each statement that you read, please rate the level of your satisfaction with the social environment in the community. Please
answer the following questions as accurately as possible by **selecting** the right number (1 = Strongly dissatisfied, 7 = Strongly satisfied). All information you provide will remain confidential.

<table>
<thead>
<tr>
<th>Strongly dissatisfied</th>
<th>Strongly satisfied</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 2 3 4 5 6</td>
<td>7</td>
</tr>
</tbody>
</table>

32. How satisfied are you with community residents’ willingness to work together for the community? 1 2 3 4 5 6 7
33. How satisfied are you with the role of community leaders in supporting economic development efforts in your community? 1 2 3 4 5 6 7
34. How satisfied are you with the quality of life in your community? 1 2 3 4 5 6 7
35. How satisfied are you with the community as a place to live? 1 2 3 4 5 6 7
36. How satisfied are you toward the community good relations among residents? 1 2 3 4 5 6 7
37. How satisfied are you with local government services in your community? 1 2 3 4 5 6 7

For the following questions, think about the community where you live in. A strong **community social environment** will give a significant impact on the community residents’ **satisfaction** with the community.

<table>
<thead>
<tr>
<th>Strongly disagree</th>
<th>Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
</tbody>
</table>

38. The people of [MY TOWN] are friendly. 1 2 3 4 5 6 7
39. The people of [MY TOWN] can be trusted. 1 2 3 4 5 6 7
40. The people of [MY TOWN] support each other. 1 2 3 4 5 6 7
41. The people of [MY TOWN] get along well with the people living in the surrounding rural area. 1 2 3 4 5 6 7
42. The people of [MY TOWN] continually look for new solutions to problems rather than being satisfied with things as they are. 1 2 3 4 5 6 7
43. This community is an ideal place to live. 1 2 3 4 5 6 7
# Section IV: Community entrepreneurial climate

For the following questions, think about to what extent community self-development programs in your community enhance entrepreneurial activities that will contribute towards community vitality. Entrepreneurship serves as a main source of rural community economic growth and development through its contribution to innovation, job creation, and enhanced rural community and business competitiveness.

<table>
<thead>
<tr>
<th></th>
<th>Strongly disagree</th>
<th>Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>44. Community self-development programs (e.g., downtown revitalization, local business assistance and expansion and historic development for tourism) are successful in attracting new businesses to the community.</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>45. Community self-development programs (e.g., downtown revitalization, local business assistance and expansion, and historic development for tourism) aid to increase the performance of existing businesses in the community.</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>46. Community self-development programs (e.g., downtown revitalization, local business assistance and expansion, and historic development for tourism) help to promote the community downtown business districts.</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>47. The rural community entrepreneurial climate could be enhanced if the local government gives support to community self-development programs.</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>48. This community offers local business assistance resources (e.g. Chamber of Commerce, economic development, downtown development programs) that help to attract entrepreneurial activities.</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>49. This community provides access to business</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
</tbody>
</table>
incentive/start-up funds that help to attract entrepreneurial activities.

50. Community self-development efforts help to prosper entrepreneurial activities in the community.

51. If given a chance, I would brag about [MY TOWN] as a good place to locate a business.

52. Retail businesses are thriving in this community.

53. Overall, the people of [MY TOWN] feel satisfied towards the improvement of business opportunities in the community.

---

Section V: Community satisfaction outcomes

Community satisfaction outcomes are in the form of community positive attitude and behavior towards the community resulting from the changes and improvement from self-development programs. This will in the end enhances rural community’s quality of life that contributes to rural community sustainability.

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly disagree</th>
<th>Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>54. The people of [MY TOWN] often shop locally.</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>55. Whenever possible, the people of [MY TOWN] purchase products and supplies locally even when they cost more.</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>56. The people of [MY TOWN] can get anything they want from local stores.</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>57. Local stores provide the people of [MY TOWN] with a variety of product and services.</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>58. Purchasing goods and services at local stores save time and trouble.</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>59. The people of [MY TOWN] go to other communities to shop. (R)</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>60. The people of [MY TOWN] appreciate small town retailers in the community.</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>61. The people of [MY TOWN] care about the fate of small town retailers in the community.</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>62. The local stores are important to the people of [MY TOWN].</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>63. The people of [MY TOWN] always inform about new promotions or offerings available at local stores with their friends.</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>64. Economically, this community is better off than most communities of similar size.</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>65. There are many job opportunities in this community.</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>66. There is less poverty in this community.</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>67. I think this community has grown stronger economically in the past five to ten years.</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>68. Living in this community is like living among close friends.</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>69. The people of [MY TOWN] feel at home in this community.</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>70. The people of [MY TOWN] would be sad if they had to move.</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>71. The people of [MY TOWN] know most of the adult residents in the neighborhood.</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>72. The people of [MY TOWN] know the majority of people who run businesses in the community.</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>73. Meeting friends in the community is part of the people of [MY TOWN] everyday activities.</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>74. It is nice to shop in a familiar store with familiar sales people.</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>75. The people of [MY TOWN] feel comfortable when they shop at local stores in their community.</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>76. The people of [MY TOWN] do not support local businesses enough. (R)</td>
<td>1</td>
<td>2</td>
</tr>
</tbody>
</table>
77. If we have a store in our community, it should be used.  
78. The people of [MY TOWN] support for local bond issues to finance community improvement projects.  
79. The people of [MY TOWN] provide technical and financial assistance in community development and planning.

Section VI: Background Information & Demographics.

Please tick ONE only for each question.

80. What is your age?
   - 18–25 years
   - 26–35 years
   - 36–45 years
   - 46–55 years
   - 56–65 years
   - Above 65 years

81. Are you male or female?
   - Male
   - Female

82. What is the highest level of education you have completed?
   - Less than high school
   - High school graduate (includes GED)
   - Some college or technical school
83. How many years have you lived in this community?
- 10 years or less
- More than 10 years

84. What is your annual income?
- $19,999 or less
- Between $20,000 to $39,999
- Between $40,000 to $59,999
- Between $60,000 to $79,999
- Between $80,000 to $99,999
- $100,000 or more
- Choose not to answer

85. What is your employment status?
- Disabled
- Student
- Homemaker
- Retired
86. Is your community located near a larger community that it relies upon economically?

- Yes
- No

87. How active is your role in the local community programs?
   Do you consider yourself to be very:

- Active
- Somewhat active
- Not very active
- Not at all active

88. Do you work in [YOUR COMMUNITY]?

- Yes
- No

Optional:

If you wish to be entered into a drawing for a $50 debit card, please enter your email or mailing address below.

Email address: ________________________________

Home mailing address: ________________________________

Thank You for Your Cooperation!
APPENDIX C: LETTER TO COMMUNITY DEVELOPMENT DIVISION

9/27/2010

Jane Seaton
State Coordinator
Community Development Division
Iowa Department of Economic Development
200 East Grand Avenue
Des Moines, IA 50309

Dear Jane,

My name is Rosita Tajuddin and I am currently pursuing the final year of my Doctoral Program at Iowa State University. I am working under the supervision of Associate Professor, Dr. Linda Niehm. To partially fulfill requirements of the doctoral program, each graduate student needs to produce scholarly research in the form of a dissertation.

My research interests are in the areas of small business, retailing, and consumer behavior. This has influenced my desire to focus my dissertation research on a study related to rural downtown main street retail revitalization. My research intends to examine factors influence the effectiveness of a specific type of a self-development effort (i.e., rural downtown main street retail revitalization) and its contribution toward community satisfaction. Research on community economic development is highly important to small business competitiveness. Further, the continuous development of the Main Street Iowa program has encouraged participation from many communities to promote their neighborhood commercial districts with the aim of enhancing and sustaining their small community’s livelihood.

For the reasons selected above, I would like to seek your support for me to conduct my proposed research in Main Street Iowa communities. I would like to specifically focus my study on the rural communities in Iowa with a population of 10,000 or fewer residents. It is my hope that findings from this research will aid in understanding how consumers perceive and respond to rural downtown retail revitalization and will also serve local and state economic development agencies in identifying effective efforts that can benefit rural community potential sustainability. Understanding community evaluations and perceptions of community economic development programs would assist economic development specialists in enhancing a community’s quality of life.
and long term sustainability. Thus, the outcomes from this research project will not only provide benefits to local and state economic development specialists but also to the rural community. I will gladly share the results of my research with Main Street Iowa staff once the study is complete.

Your support of this research project would be highly appreciated. I hope that Main Street Iowa will grant me approval to implement this study in selected rural communities who are involved in the Main Street Iowa program. To gather data from rural communities, I would like to seek your assistance in identifying 3 to 5 rural communities with populations of 10,000 or fewer residents that have displayed good participation and engagement in revitalization efforts through Main Street Iowa program. The identified communities will then be contacted via email and letter to inform them about my proposed research.

A mail survey will be used to collect data from the identified communities. Respondents from each identified community will be selected randomly from residents listed in the local telephone directory. The target respondents would be rural community residents who I believe serve as a first-hand informants and who have experienced the impact of a retail and community revitalization efforts.

I would like to send approximately 900 questionnaires that will be distributed across the identified communities. High responses are needed for me to conduct the required method of analysis for the study. For your information, there will be no cost incurred to Main Street Iowa since I will be fully responsible for any expenses involved in completing the research project. However, your verbal support of the research project and support at the local level for the project by the community Main Street Iowa (MSI) Director would be greatly appreciated.

If you have further questions about the study, please do not hesitate to contact me via email at rosita@iastate.edu or my advisor, Associate Professor Dr. Linda Niehm at niehmlin@iastate.edu. I will soon do a follow up contact with you via email to further discuss my inquiry on this matter. Lastly, I greatly appreciate your assistance and consideration of my request.

Thank you so much.

Best regards,

Rosita Tajuddin
Doctoral Candidate
Textiles and Clothing Program

Linda S. Niehm, PhD,
Associate Professor
Textiles and Clothing Program
12/20/2010

Jane Seaton
Community Development Division
Iowa Department of Economic Development
200 East Grand Avenue
Des Moines, IA 50309

Dear Jane,

My name is Rosita Tajuddin and I am currently pursuing the final year of my Doctoral Program at Iowa State University. I previously contacted you in the fall 2010 requesting your assistance in identifying 3 to 5 rural communities with populations of 10,000 or fewer residents that have displayed good participation and engagement in revitalization efforts through the economic development program. I would like to say thank you again for your support and cooperation in providing me a list of five communities.

Recently, I had a research proposal meeting with my research committee. Based on the meeting, the research committee would like me to make the selection on rural communities based on the length of their participation in the community and business revitalization programs. The benchmark to identify these communities is five years. Communities with 5 years or more of participation are referred as active and communities with less than 5 years participation are considered less active. Rural communities that are active also reflected by numbers of local groups, government officials as well as citizens who shared the responsibilities of promoting the community’s life (e.g., total volunteers). I would also like to include rural communities from different regions of Iowa. The reason for using these benchmarks for the selection of rural communities is to ensure that there will be an even distribution of samples and to enhance the generalization of the study.

Therefore, I would like to again seek your assistance and cooperation in providing me with a list of rural communities that meet the characteristics mentioned above. It will be highly appreciated if you could send me the list of rural communities that meet the characteristics soon or at any time during the month of January 2011. Once I receive the list of rural communities, I will randomly select the communities and
proceed with my data collection. I am planning to do my data collection toward the end of January 2011.

If you have further questions about the study, please do not hesitate to contact me via email at rosita@iastate.edu or my advisor, Associate Professor Dr. Linda Niehm at niehmlin@iastate.edu. I will do a follow up contact with you via email to further discuss my inquiry on this matter. I greatly appreciate your assistance and consideration of my request.

Best regards,

Rosita Tajuddin
Doctoral Candidate
Textiles and Clothing Program
Department of Apparel, Educational Studies and Hospitality Management

Linda S. Niehm, PhD,
Associate Professor
Textiles and Clothing Program
Department of Apparel, Educational Studies and Hospitality Management
APPENDIX E: POSTCARD: INVITATION TO PARTICIPATE IN THE ONLINE SURVEY

Rural Community Development Satisfaction Survey

Community self-development efforts serve as one of the premier community economic development programs that involve participation and engagement from community members. The aim of this program is to implement effective strategies by using local resources to enhance the community neighborhood commercial districts with the intention to strengthen and sustain the rural economy.

The goal of this study is to examine the influence of community social support and the related self-development effort and its relationship to the community resident’s satisfaction outcomes and overall vitality. Research on community economic development is highly important to community residents, local business competitiveness, and rural economic growth.

Your input is an important part of this process and your opinion about the impact of community self development efforts on overall community satisfaction are valuable to local economic development agencies, community leaders, and your rural community as a whole.

Take the online survey

Go to http://humansciences.rural.sgizmo.com/s3 and if you agree to participate, you will be prompted to select your community from a list. Once you select the community, you will be asked to complete an online survey concerning your responses toward the impact of community self-development efforts on community satisfaction. The survey will take about 15-20 minutes to complete.

If you don’t have Internet access at home, you can take the survey at the [Name and address of public library]. At the end of the survey, be sure to click on “Submit”.

Your opinions are extremely valuable and as a sign of our appreciation for completing this survey, you will be entered into a drawing for a $50 debit card. To enter the drawing, you will be asked to provide your email address or home mailing address. The drawing will take place on April 24, 2011. Winners will be notified by email or regular mail.

The future of the community is in your hands. We look forward to getting your opinion and feedback. What you need to do is to only spend 15-20 minutes to express your opinion. Your response will make a huge difference to the community. We look forward to getting your ideas!
APPENDIX F: CONSENT LETTER TO MAIL SURVEY PARTICIPANTS

Dear [COMMUNITY NAME] Recipient,

We are working on a research project at Iowa State University that involves surveying rural community residents’ satisfaction on community development efforts in the community. Our goal is to gain insights concerning the impact of self-development efforts on community satisfaction outcomes and vitality. Results of this study will be valuable in meeting community residents’ expectation and satisfaction in relation to self-development efforts. Findings from this study will surely be of interest to you, your community, and community economic development agencies as well as rural community leaders to understand to what extent self-development efforts could satisfy rural community residents and whether their expectations are being met.

You were selected because as a community resident, you serve as a first-hand informant who has experienced the impact of self-development efforts. We would appreciate it very much if you would be one of our initial survey participants. You can either complete the attached paper survey or online survey by following this link http://humansciences.rural.sgizmo.com/s3. This would involve your response to some brief questions about your satisfaction on self-development efforts present in your community. All information that you provide in the survey will remain strictly confidential. Demographic information on participants will be kept confidential. Hard copies of data will be retained for two years and destroyed after completing the research.

Time required to complete the survey is approximately 15 - 20 minutes. We would appreciate your response and complete the survey by April 22 (Friday). As a way to show our appreciation, a drawing contest will be conducted at the end of the survey. You can participate in the drawing and are eligible to win a $50 debit card. Winners will be notified immediately after the survey ends via email or contact mailing address. If you choose to participate, please complete the survey and return the survey in the stamped envelope provided or fax to 515-294-6364. You may decline to answer any questions on the survey form. You may also choose to not participate and are free to withdraw from the study at any time. In case you have questions or concerns about your rights in this research study, please feel free to contact the IRB Administrator 515-294 4566 or IRB@iastate.edu, or Director 515 294 3115, Office for Responsible Research, Iowa State University, Ames, Iowa 50011. Thank you for your time and consideration. It is only the generous help of people like you that our research study can be successful. We are looking forward to hear from you soon.

Sincerely,
Rosita Mohd Tajuddin
Linda S Niehm, Phd
31 Mackay Hall
31 Mackay Hall
Department of Apparel, Educational Studies
Department of Apparel, Educational & Hospitality Management
Ames, IA 50011
Ames, IA 50011
Phone: 515-572 4154/ 515-708 6260
Phone: 515-294 1930 Fax: 515294 364
Email: rosita@iastate.edu
Email: niehmlin@iastate.edu

Enclosures: Community development satisfaction survey form, a stamped return envelope.
APPENDIX G: LETTER TO STEERING COMMITTEES

3/1/2011

[NAME]
[ORGANIZATION NAME]
[NAME OF THE COMMUNITY]

Dear [NAME OF THE PERSONNEL],

My name is Rosita Tajuddin and I am currently pursuing the final year of my Doctoral Program at Iowa State University. I am working under the supervision of Associate Professor, Dr. Linda Niehm. To partially fulfill requirements of the doctoral program, each graduate student needs to produce scholarly research in the form of a dissertation. My research focuses on the relationship between community self-development efforts and community satisfaction and overall vitality. A self-development effort is concerned with activities aimed at fostering local businesses and employs local resources to provide assistance to economic activities from within the community. This form of economic development strategy focuses on local projects that involve the participation and support of the local community, including local government, businesses, community leaders, and community members. Community self-development efforts include: community downtown or retail sector revitalization, local business assistance and expansion, historic/cultural site development for tourism, and other local community based development activities.

To conduct this study, I have contacted the Community Economic Division of the Iowa Department of Economic Development and they have given full support by providing me with a list of rural communities that have been involved in community self-development efforts. The target sample of my study is rural communities in Iowa with populations of 10,000 or fewer residents. The target sample size from each selected community will be 200 participants. Six rural communities have been selected to participate in this study and they are Elkader, Charles City, Greenfield, Mount Vernon, Belle Plaine, and Woodbine. This will contribute a total of 1200 samples.

To gather data from rural communities, I need to invite community residents to participate in an online survey. To invite participation in the online survey, postcards were mailed to community residents who are randomly selected from a community resident’s list. They are invited to take the online survey by going to the link attached on the postcards. The reason I am writing to you is to seek your assistance to promote and motivate the community residents to participate in this study. I would like to seek your help in disseminating information to the people in the community about the online survey that will take place during the month of March 2011.
For the reason stated above, I have enclosed two flyers about taking the online survey. It will be highly appreciated if you could help me to display the flyers on the community bulletin board for community’s reference. Community residents who do not receive the postcards are welcomed and encouraged to take the online survey. The input from community residents is important and will provide valuable insights that can help to improve the community self-development efforts in meeting community satisfaction. Participants only need to spend between 15-20 minutes to complete the online survey. To participate in the study, community residents can take the survey either at home or at the community library by typing the following link http://humansciences.rural.sgzmo.com/s3 or copy and paste the link into their browser.

For community residents who do not have internet access, they can take the survey at their local public library. Community residents’ opinions are extremely important and as a sign of our appreciation for completing this survey, they will be entered into a drawing for a $50 debit card. The drawing will take place on March 31 2011. Your verbal support of the research project and support at the local level for the project by the community will be greatly appreciated.

It is my hope that findings from this research will aid in understanding how community residents perceive and respond to self-development efforts and will also serve local and state economic development agencies in identifying effective efforts that can benefit rural community potential and vitality. Thus, the outcomes from this research project will not only provide benefits to local and state economic development specialists but also to the rural community. I will gladly share the results of my research with the city, main street, and extension offices at each of the selected communities once the study is complete.

If you have further questions about the study, please do not hesitate to contact me via email at rosita@iastate.edu or my advisor, Associate Professor Dr. Linda Niehm at niehmlin@iastate.edu. I greatly appreciate your assistance and consideration of my request.

Best regards,

Rosita Tajuddin
Doctoral Candidate
Textiles and Clothing Program
Department of Educational Studies, & Hospitality Management

Linda S. Niehm, PhD,
Associate Professor
Textiles and Clothing Program
Department of Educational Studies, & Hospitality Management
APPENDIX H: POSTCARD FOR REMINDER

Dear [COMMUNITY NAME] Recipient,

Two weeks ago a questionnaire seeking your opinion about your satisfaction on the community development present in your community was mailed to you. Your name was drawn randomly from a list of a national population sample.

If you have already completed and returned the questionnaire to us, please accept our sincere thanks. If not, please do so today. It will only take about 15-20 minutes to complete. We are especially grateful for your help because it is only by asking people like you to share your experiences that we can understand the impact of community self-development on residents’ satisfaction and overall community vitality.

If you did not receive a questionnaire, or if it was misplaced, please call us at 515-708-6260 and we will get another one in the mail to you today. If you wish to complete the survey online, you can view and take the survey at http://humansciences.rural.sgizmo.com/s3 We would really appreciate your response and the completion of the survey by April 22 (Friday). Your opinions are extremely valuable and as a sign of our appreciation for completing this survey, you will be entered into a drawing for a $50 debit card. The drawing will take place at the end of the survey. Winners will be notified by email or regular mail.

The future of your community is in your hands. We look forward to getting your opinion and feedback. Your response will make a huge difference to communities such as yours. We look forward to getting your ideas!

Sincerely,

Rosita Mohd Tajuddin
31 Mackay Hall,
AESHM Department,
Iowa State University,
Ames, IA 50011
REFERENCES


Main Street Messenger (2009). Main Street Iowa continues to grow. *Main Street Messenger, 2*, 1-12.


