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Extended Abstract

Social Network Analysis: An Application to Agritourism Associations

Introduction

Since the 1980s, farmers have been offering recreational and educational activities on their farms (i.e., agritourism) to increase their revenues and improve the overall economic value of their business (Barbieri and Mshenga 2008; Ilbery 1991). However, the emergence of agritourism enterprises has posed challenges to novel entrepreneurial farmers. They are faced with the need to acquire a set of entrepreneurial skills and business competencies which they didn't possess, such as product innovation, direct marketing and customer service (Mishra, El-osta and Sandretto 2002; Winter, 1990). Consequently, a suite of associations has emerged to support entrepreneurial farmers with educational programs (e.g., workshops, conferences) and network opportunities (Greve 1995).

By gathering people with similar interests (e.g., agritourism farmers, farm suppliers, marketers, etc.), agritourism associations are capable of invigorating their members' economic activities and professional development. The diversity of resources (e.g., professional referrals, group insurance purchase, etc.) and information (e.g., required license, business standards, etc.) associations provide to their members can stimulate their entrepreneurial innovation and business success (Phelan and Sharpley 2012). Associations are also instrumental in developing social capital and building social networks among their members. Building both, social capital and social networks, are especially critical in emergent entrepreneurial activities such as agritourism, as they can activate and effectively mobilize resources and facilitate information exchange within a network (Bourdieu 1986; Coleman 1990; Lin 1999; Putnam 1993; Ring, Peredo and Chrisman 2009; Young 2010).

Notwithstanding the substantial benefits social capital and social networks can bring to entrepreneurial development, we still do not know how different dimensions and levels of social capital operate within associations. Therefore, we designed this study using social network analysis to visually display farmers' social capital within agritourism associations. Specifically, we will investigate: (1) members' extent of social capital (manifested by structural, cognitive and relational dimensions) within agritourism associations; (2) the quantity (number of social ties) and quality (trust, reciprocity and cooperation) of social capital agritourism associations developed among their members; and (3) members' informational networks (types of sources, level of trust) within agritourism associations.

Literature Review

In essence, associations are social networks developed among people with common interests and needs under a governance structure (Knoke, 1988). By fostering different types of relationships (i.e., ties) among members to facilitate the exchange of resources and information, associations build social capital, which in turns help to maximize the benefits obtained by members (Mitchell 1969). Therefore, in this context, social capital emphasizes its network function as the "aggregation of actual or potential resources embedded in a network or membership in a group" (Bourdieu 1986, p. 21).

Social capital is usually described through three dimensions: structural, cognitive and relational. The structural dimension depicts the overall pattern of social connections and relationships within networks (e.g., associations) by revealing the presence/absence of network

ties (Granovetter 1992; Paxton 2007). Since ties are the source of social interaction that activates knowledge exchange and information sharing, this dimension captures the potential to mobilize available resources (e.g., capital, equipment, etc.) within the network (Nahapiet and Ghoshal 1998). The cognitive dimension uncovers the extent of members' homogeneity in terms of values, attitudes, beliefs and vision within groups (Woolcock and Narayan 2000). Such homogeneity facilitates members' mutual understanding, thus it fosters support for social action (De Carolis and Saporito 2006). The relational dimension refers to the quality or strength of network ties in terms of individuals' trust, reciprocity and cooperation (Young 2010). This dimension usually uncovers members' length in a social relationship and the extent of their emotional intimacy, as well as the frequency of members' reciprocal behaviors (Ring et al. 2009).

The complexity of examining social capital within networks has called for visual representations to illustrate the characteristics of interpersonal relationships using points and lines. Among these methods, social network analysis (SNA) has gained popularity because its capacity to simultaneously display the quantity (e.g., number of ties) and quality (e.g., trust of information sources) of these relationships. Thus, SNA is suitable to examine social capital within associations because it can capture the central relationships among the members (actors) of an association (network), identify actors' embeddedness within the network and display the static and dynamic aspects of the network by highlighting the linkages between actors (Kilduff, Tsai and Hanke 2005; Tichy, Tushman and Fombrun 1979).

Research Methods

We will use the North American Farmers' Direct Marketing Association (NAFDMA) as a case study to examine the social capital that agritourism associations develop among their members. We selected NAFDMA because its focus on agritourism, international scope and membership inclusiveness. These three characteristics assure the network to be examined contains members that not only share a distinct interest ("prosperity in agritourism operations") but also represent a relative broad geographic (Canada, U.S., Mexico) and structural (different types of members) composition. We will collect data from NAFDMA members who are farmers offering agritourism using an online survey. We estimate participants will need 15-20 minutes to complete the survey and to obtain about 250 completed forms. Survey procedures will follow a modified Tailored Design Method for online surveys (Dillman, Smyth and Melani 2009); it will be modified because reminders will be sent based on the pace of responses rather than established intervals. The survey will be launched in Spring 2016; data collection is expected to conclude within two months.

The survey instrument will collect information on members' farm profile (e.g., number of employees), agritourism operations (e.g., length offering agritourism), socio-demographics (e.g., age, household income), and overall perceptions of structural, cognitive and relational social capital within NAFDMA (9 items, 5-pt Likert scales; Jones, 2005). To inform the overall pattern of the whole social network, we will also query participants on the extent of their ties within NAFDMA (e.g., number of members with whom they keep regular communication) and the quality of these ties (e.g., I can trust NAFDMA members with my business problems, NAFDMA members can trust me with their business problems). To develop the ego (individual) structure of the network, we will ask participants about the frequency they seek agritourism-related information within internal NAFDMA sources (e.g., website) and their level of trust on these sources.

A series of descriptive analyses will be used to identify respondents' socio-economic profile and overall perception of social capital; Cronbach alpha reliability tests will be used to examine the internal reliability of the social capital dimensions. Then, SNA will be used to map respondents' informational networks by measuring several attributes such as size (i.e., number of actors within a network), density (i.e., the sum of the ties divided by the number of possible ties) and degree of centrality (i.e., number of connected actors). In doing so, we will be able to graphically display members' interactions within NAFDMA as well as identify relatively important members (actors) that tend to interact more within the network. For example, Figure 1 shows a hypothetical social network of 11 actors, which indicates that one member (#7) has a central role in connecting other members, while others are less connected (#1, #6) or even isolated (#4). Furthermore, it shows the direction how certain information is shared.

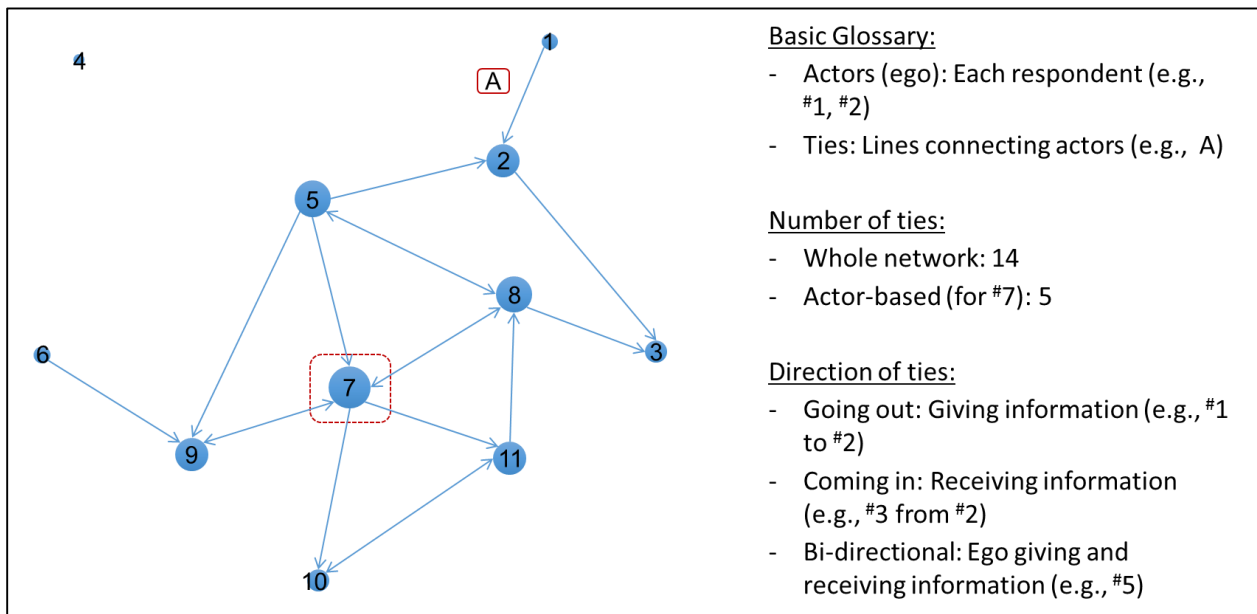


Figure 1: Hypothetical social network and explanation of key terminologies

Study Contributions

The application of SNA into an agritourism association will be critical to evaluate the extent to which agricultural associations build social capital among their members, and more importantly, identify the key information sources that foster members' agritourism-related knowledge and operational skills. This information is important for agritourism development because it can stimulate associations to channel information and educational resources to their members in a more efficient way. By furthering the professional development of their members, associations can increase the value of their memberships, which can help member recruitment and retention (Coash-Johnson 2011). By building the entrepreneurial capacity of agritourism providers, agritourism associations can increase farmers' chances for business success; this is critical given the many economic and non-economic benefits agritourism is suggested to bring to society, such as sustaining family farming, preserving rural heritages and landscapes, and instigating environmental consciousness in the public (Barbieri 2013).

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