Title: Antecedents and Consequences of Managerial Behavior in Agritourism

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Abstract

Drawing from contingency theory and the concept of entrepreneurship, this study investigates the viability of small-scale agritourism business. Specifically, this paper identifies the antecedents (i.e., external environment and internal conditions) and consequences (i.e., financial and non-financial benefits) of managerial behaviors (i.e., innovation, pro-activeness, and aggressiveness) in operating an agritourism business. Based on responses from the USDA census of agriculture, the results of this research reveal the heterogeneous effects of antecedents that contribute positively and negatively to managerial behavior. The varied influences of managerial behavior on different types of business performance are identified. Also, theoretical implications of the development of agritourism studies as well as managerial implications for owners, consultants, and policymakers related to the small tourism business in rural areas are provided.
1. Introduction

Rural tourism has become a remarkable phenomenon amidst changes in the interests of the tourism market, such as increasing demands for short vacations, experience-focused tourism activities, and social changes (e.g., the anti-urbanization movement) (Barbieri, Mahoney, & Butler, 2008; Fleischer & Tchetchik, 2005; Tew & Barbieri, 2012). Recently, a severe economic downturn within rural areas has accelerated the development of a tourism industry as an alternative solution for local economic revitalization (Haggblade, Hazell, & Reardon, 2010; Lewis & Delisle, 2004; Tew & Barbieri, 2012). The USDA (2005) reported that farm household income from off-farm sources has increased consistently. For those who are involved in agritourism, the income per farm from recreational activities experienced rapid growth from $7,217 in 2002 to $24,278 in 2007 (USDA 2005). However, it is reported that the actual evolution of developing small tourism businesses in rural areas is still uncertain. While total income from agricultural tourism and recreational activities has increased from $202 million in 2002 to $566 million in 2007, the number of farms actively engaged in this recreational service has decreased from 28,016 in 2002 to 23,350 in 2007, (USDA, 2009).

This indicates that despite some clear early successes, there is a gap between ideal ways of developing and growing a new tourism enterprise and handling the harder realities faced with managers of agritourism businesses. Accordingly, several researchers have suggested a number of reasons for these potential obstacles, including seasonality, small scale, lack of knowledge and experience, and a limited support system for small businesses (e.g., Barbieri, Mahoney, & Butler, 2008; Bowler, Blarke, Crockett, Iberry, & Shaw, 1996; Brohman, 1996; Fleischer & Felsenstein, 2000; Getz & Nilsson, 2004; Sharpley, 2002; Wilson, Fesenmaier, Fesenmaier, & Van Es, 2001). However, there is no critical consensus to resolve the problems from the perspectives of innovative organizations. Thus, this study suggests the viability of
small agriculture-based tourism enterprises in rural area and focuses on the managerial behaviors of owners (or managers) when operating their small tourism businesses.

The literature of small-business management suggests that these enterprises do not usually have long-term strategies or formalized control systems (Page, Forer, & Lawton, 1999). Rather, the informality and improvisation in management activities have often fostered unreasonable expectations, marginal decisions, and unexpected results (Carland, Hoy, & Carland, 1988; Slevin & Covin, 1990). Thus, the management behaviors of small businesses may be a crucial factor to explain a complicated process. This study argues that the characteristic of small business management could be applied to the operation of tourism business in the same way. That is, various motivations for business creation such as the enjoyment of leisure or the need for extra income could induce managers to pursue different goals and orientations in operating their business (Getz & Carlsen, 2005). Furthermore, these different business contexts could also influence the evaluation of outcomes from tourism businesses and future decisions for operating the business (Morrison, Breen, & Ali, 2003).

Accordingly, this study applies the concept of entrepreneurial behaviors as a framework to explain the different managerial behaviors within the agricultural tourism context in rural areas, which eventually influence organizational performance. This research also adopts contingency theory to explicate different behavioral patterns of managers in different business contexts (i.e., perceived external environment and internal condition of the organization). Therefore, the purpose of this study is to identify the antecedents of managerial behaviors with regard to perceived external environment and organizational (or internal) condition and to test the effects of the managerial behaviors on business performance comprising financial benefit, human relation, and self-fulfillment.
2. Literature Review

2.1 Rural Tourism Business

The rural environment has been perceived as an ideal site for tourism businesses where visitors could enjoy the feeling of peacefulness, simplicity, tranquility, and a sense of tradition that collectively represent the antithesis of modern and urban life (Barbieri & Tew, 2010; Page & Getz, 1997; Frochot, 2005). The rural tourism experience has typically been conceived as recreational activities undertaken during the holiday season or during free time (Phillip, Hunter, & Blackstock, 2010). This increase of consumer demand for a short holiday break and for more activity-based holidays as well as the escalating reaction against mass tourism has fostered an expansion of rural tourism, particularly farm tourism businesses (Nickerson, Black & McCool, 2001; Sharpley, 2002).

Meanwhile, many agricultural and economic researchers (e.g., Nickerson, et. al. [2001], Sharpley & Vass [2006]) have focused on the possibility that rural tourism businesses could serve as supplemental income for traditional agricultural production. In fact, those researchers are concerned with the transition of many traditional agricultural businesses to a new model with diversified income streams. From this perspective, new or expanded tourism businesses would be a mechanism to relieve the downward trend of the rural economy. Thus, as a supplemental enterprise, tourism would be helpful in maintaining farming and the farm environment (Barbieri & Tew, 2010; Nickerson, Black, & McCool, 2001; Sharpley & Vass, 2006). In fact, the development of rural tourism offers potential solutions to many problems in rural areas (Sharpley, 2002). For example, job creation associated with the development of tourism businesses could bring income growth to an area. Furthermore, the creation of new farm markets for agricultural products might also increase the opportunity for promoting local crafts and other goods that could broaden the regional economic base and activate
competitiveness among local economic entrepreneurs (Getz, & Carlsen, 2005; Frochot, 2005; Fleischer, & Tchetchik, 2005).

The growth of tourism in rural areas may be attributed to the expectation that it could play a significant role in both “value creating” and “value-added” performance in the local economy (Shaw & Williams, 1990). In other words, depending on the economic situation of the area, the tourism business could boost local economies by generating and instigating consumer activities directly related to various tourism attractions in the area. At the same time, it would support small local businesses such as farms or ranches by creating a supplemental income source.

2.2 Contingency Theory

The basic concept of contingency theory stems from the fields of general management and organizational behavior, which explains the mechanism and relationships of the small-business environment and management practice. In this theory, environment and management behaviors are treated as components of business practice that have a significant influence on business performance. Donaldson (2001) posits that the effectiveness of an organization depends on its ability to adapt its structure and protocol to an array of contingencies. Many researchers in the field of organization science (e.g., Donaldson [2001], Luo [1999], Van de Ven, Ganco, & Hinings [2013]) have referred to contingency theory as the integration of classical viewpoints and modern behavioral theories. Unlike the classical perspective, which argues that the best results are achieved by optimal use of resources and capabilities, contingency theorists state that the maximum level of performance results from fitting the appropriate level of strategic action to certain inevitable contingencies. Business managers must, therefore, control and shape how they react toward each contingency, which is defined as any variable that moderates the effect of an organizational characteristic on its performance, including the environmental and organizational elements (Donaldson, 2001; Miner, 2015).
Thus, contingency theory suggests that the principal determinant of business performance is the interaction between strategy and environment. From this perspective, business success is a function of the manager’s ability to develop effective strategies that best fit environmental conditions and promote business survival (Luo, 1999).

2.2 Entrepreneurship in Business Management

Similar with an orientation toward creating different and new values through the investment of time and money, the concept of entrepreneurship is most concerned with identifying different patterns of managerial behaviors affected by the business environment (Hatten, 2015; Timmons, 1994). Contingency theory focuses mostly on revealing contingencies and the adaptations managers make toward those contingencies in order to negotiate a balance between business operation and environment and, thereby, ensure business survival. Entrepreneurship, on the other hand, is more concerned with the direction and level of managerial behavior—whether conservative or assertive—that are to overcome the environmental changes or regard changes as an opportunity for business growth.

Some researchers define entrepreneurship simply as a process or way of behaving (Cunningham & Lischeron, 1991), while for others, the core element of entrepreneurship is the initiation of change (Curran & Burrows, 1986; Morrison, Rimmington, & Williams, 1999). As applied specifically to the management process, entrepreneurship focuses on the preferences for managerial risk-taking in relation to creation of new methods of operation or products. Entrepreneurs reflect maintaining high levels of self-efficacy, a readiness for change, keen interest in innovation, a competitive spirit, and a strong goal orientation (Covin & Slevin, 1988; Fogel, 2001; Zimmerer, Scarborough, & Wilson, 2005). The entrepreneurial drive is highly esteemed in modern studies about management as a new way of creating economic benefit or of having higher psychological satisfaction (Georgellis & Wall, 2000). In this study,
entrepreneurial behavior is seen as a way of fitting one’s business into its environmental context in order to achieve optimal results. That is, small-business managers choose different ways of business organization and operation depending on their particular life situations and business goals. The primary advantage of highly entrepreneurial small-scale enterprises is that they can respond to market change more quickly with lower cost than big companies. This is because they can operate close to their markets and modify the products more quickly if necessary (Morrison, et al., 1999). Thus, it is argued that improvised decision making based on a manager’s intuition would generate new opportunities for the business.

2.3 Perceived External Environment of Rural Tourism Businesses

Literature regarding contingency theory and entrepreneurship have shown that there are a variety of important factors that influence the process and performance of a business operation. The most frequently mentioned factors include business environment, internal business conditions, and managers’ ability to set strategy (Match, 1997; Miles & Snow, 1978; Narayanan & Nath, 1993). From the tourism perspective, the external environment has been described as the various institutions and circumstances that affect the local tourism industry (Evans & Ilbery, 1989; Nickerson, Black, & McCool, 2001). These elements of external environment represent investment from governmental and non-governmental organizations that are not personally connected to the managers. Each of these categories has different sub-elements that could affect the tourism business. Economic factors, for example, are a particularly complex combination of regional financial standing and rural tourism trends. As a part of the market system, these different factors closely relate and interact with each other in determining agricultural business operation. This research discusses three core factors of external environment below, including community, economic status, and organizational support (Gnyawali & Fogel, 1994; Match, 1997; Miner, 2015).
The manager’s perception of the relationship between his/her tourism business and the community to which he/she belongs significantly influences management decision-making and the consequences of business activities. This study treats two different sub-factors as main concerns: the community’s attitude toward tourism and the attractiveness of the community as a tourist destination. First, the attitude of a community toward tourism could be a vital factor in developing a tourism business; Besser (1999) remarks that a community that feels favorably toward small businesses and tourism would encourage entrepreneurship in the area. In terms of the attractiveness of the community and the identity and history of the community as a tourist destination, historic sites or places with other distinctive characteristics may likewise incite the development of a new tourism business (Kousis, 1989; Keen, 2004).

Economic status refers to the overall market environment that affects the management of a business irrespective of the business’s type and size (Page & Getz, 1997). Another source of influence on business decision-making derives from the manager’s perception of economic change. Concerned foremost with markets and competitors, economic status begins with an evaluation of broader economic trends within an area and encompasses several considerations including the expansion of the rural tourism market, the economic need for diversification, and attitudes toward tourism as a diversification option. These considerations suggest that, along with market volatility, the provision of agriculture and the tourism businesses are important facets that managers should recognize.

While community support may offer some benefit to a small tourism operation, assistance from governmental and non-governmental organizations has a more significant impact. Large-scale organizational support may manifest itself in financial assistance, management-skills training, and marketing (Fleischer & Felsenstein, 2000; Fischer & Reuber, 2003). Gnyawali and Fogel (1994) argue that, because difficulties in adhering to legal procedures and regulations often diminish business output, capital subsidies such as loans could strengthen a firm’s ability
to launch, grow, or develop new products and services (Coleman, 2007). This factor would include the perception of the difficulty in getting financial support, such as tax breaks and incentives. Meanwhile, organizations could offer programs about business assistance by workshops and professional counseling and provide opportunities for collaboration. From the perspective of market analysis and advertising, organized support outside of business (e.g., destination-marketing organizations) is very desirable. Also, qualities natural to rural-business management only augment the importance of organizational support. Rural areas often require heavy governmental investment in developing basic infrastructure including roads, water supply, electricity, and communication facilities that allow the easy access for suppliers and customers (Gnyawali & Fogel, 1994).

2.4. Internal Condition

The term internal environment describes all the physical and intangible factors within a particular enterprise organization that influences the decision-making behavior of individuals in the enterprise (Donaldson, 2001). In the literature relevant to business management, the design of an internal environment is to differentiate businesses that reside in similar environments. The age of the business and its beginning size, ownership and legal forms, and industrial sector have been recognized as important factors that result in business performance (Gibson & Cassa, 2002). Storey (1994) argues that younger and smaller firms grow faster than older and bigger firms; also, firms located in places where there are scarce resources or slim markets will not grow as rapidly as those in better locations (Davidsson, Delmar, & Wiklund, 2002). The internal condition and capacity of a business include the experience, networking ability, and basic motivation for the business of its owners. These internal elements are likely to make the greatest difference with the management process and performance of small tourism
businesses. This may especially be the case for small tourist operations run as a hobby, where a strong profit motive is absent, and a less aggressive management style is present.

The longevity of an enterprise (i.e., business experience) is another element in identifying business qualities and habits (Walford, 2001). As with older managers, veteran businesses are more likely to have the necessary institutional knowledge to survive (Mohan-Neil, 1995). In addition, as the enterprise has existed longer, it is more likely to enjoy high levels of customer recognition. However, an enterprise that has thrived for a long period of time is more likely to be constrained from implementing dramatic innovations or reforms and risk disturbing the formula that has led to its success. Therefore, older businesses are more likely to show conservative tendencies than newer businesses. When the farm is run by second- or third-generation family members, this pattern of managerial behavior is more likely to be found. Getz (2005) argued that the first generation might involve financial risk plus creativity, but the needs of a growing family business requires that a risk-averse strategy be pursued in order to not jeopardize family security or the property legacy. Another recent study also reveals that multiple generations of family business are more reluctant to attempt innovation or reforms compared to non-family business organizations (Benavides-Velasco, Quintana-Carcia, Guzman-Parra, 2013)

2.5 Managerial Behavior

Managerial behavior represents the manager’s preference in decision-making; in turn, we define preference as the manager’s orientation, or whether he/she inclines toward innovation and aggressiveness or toward stability and caution, as revealed through the decisions he/she takes. Unlike strategy, which focuses on a formalized method of attaining goals, managerial behavior indicates a broad and informal pattern of decision or activities in a discretionary
situation. These managerial behaviors are generally concerned with perceived innovation, proactive personality, and aggressiveness of operation (Covin & Slevin, 1988; Miller, 1983).

Innovation is defined as the “willingness to support creativity and experimentation in introducing new products/services, and novelty, technological leadership and R&D in developing new processes” (Lumpkin & Dess, 2001, p. 431). Innovativeness can also lead to the development of key capabilities that leads to improving a firm’s performance (Teece, Pisano, & Shuen, 1997). Proactiveness was conceptualized as the organizational pursuit of favorable business opportunities (Stevenson & Jarillo, 1990). That is, proactiveness is viewed as an “opportunity-seeking, forward-looking perspective involving introducing new products or services ahead of the competition and acting in anticipation of future demand to create change and shape the environment” (Lumpkin & Dess, 2001, p. 431). Porter (1980) posited that, in a certain situation, firms could utilize proactive behaviors in order to increase their competitive positioning in relation to other firms.

Competitive aggressiveness can be defined as “a firm’s propensity to directly and intensely challenge its competitors to achieve entry or improve position, that is, to outperform industry rivals in the marketplace” (Lumpkin & Dess, 1996, p.148). It also embraces nontraditional methods of competition, such as new types of distribution or marketing. Chen and MacMillan (1992) showed that competitive behavior is directly associated with positive performance, as evidenced by gains in market share. As a result, it has been identified that competitive aggressiveness typically encapsulates a sales orientation, and this is underscored in its emphasis on market share gains for improved performance (Chen & Hambrick, 1995; Steenkamp et al. 2005).

The different preferences of managers and the responses toward environmental contingency that they induce play important roles in the success or failure of a business (Wasilczuk, 2000). Thus, research on small-business management and entrepreneurship has
developed the concept of management behavior or style as a central criterion in assessing and differentiating business protocol and performance. In studies on small-business management, systemized concepts such as strategy or performance efficiency were not applied frequently due to the informal character of small-business operation (Page, et al., 1999). Accordingly, many small tourism businesses tend not to develop a formal business plan (Handy, 1988; Beaver, Lashley & Stewart, 1998) but instead rely on their intuition and improvise their decision-making (Jelinek & Litterer, 1995). In the context of tourism entrepreneurship, Koh (2006) stressed the important role of the entrepreneur as a core element in tourism development.

Unlike in general business, the gap in managerial behavior in agritourism business is expected to be broader and more diverse because of the informal characteristic and concomitant variety of owner motivations and attitudes toward the enterprise. Furthermore, owners/managers in such a business may alter their business perspectives over time as a result of changes in their environment (Carson, Cromie, McGowan, & Hill, 1995). Therefore, the measure of entrepreneurial posture may be more suitable to investigate the behavior of an agricultural-tourism business manager than other concepts or measurements focused on systemized behavior. In fact, by employing the measure entrepreneurship, Carland, Hoy, Boulton, and Carland, (1984) identify and elucidate two distinct types of small-business managers: managers as entrepreneurs and managers as owners. They argue that entrepreneurs capitalize on an innovative combination of resources for generating profits using strategic management practices, while owners treat their respective businesses as an extension of their personal interests and a means of pursuing their own self-shaped motivations and goals. Accordingly, these types of managerial behaviors (i.e., innovation, aggressiveness, and proactive) exhibit different cognitive orientations and behavior preferences (Carland et al., 1988) that may influence business-planning activities (Carland, Carland, & Aby, 1989).
3. Development of a Proposed Model

The research model in this study consists of three different stages: antecedent, process, and consequence. The antecedents in the conceptual business model include perceived external environment and internal conditions of the business. The stage of process contains the three aspects of the managerial behavior, and the consequence consists of financial benefit, human relation, and self-fulfillment (see Figure 1). Overall, in the small-tourism business context, the informal patterns of managerial behaviors are affected by management’s different perceptions of the external and internal environment. Lindsay and Rue (1980) argue that perceived external and internal business environments and business size influence the operation of business based on contingency viewpoints. Slevin and Covin (1995) investigate various relationships among managerial behaviors deriving from entrepreneurial posture and the business environment. Based upon these previous studies, it is hypothesized that environmental and organizational conditions have positive relationships with entrepreneurial posture (H1a, b, c and H2a, b).

H1a: The manager’s perception of the community environment has a significant influence on managerial behaviors (i.e., innovation, pro-activeness, and aggressiveness).
H1b: The manager’s perception of the economic status in the local area has a significant influence on managerial behaviors (i.e., innovation, pro-activeness, and aggressiveness)
H1c: The manager’s perception of governmental supports to his/her agritourism operation has a significant influence on managerial behaviors (i.e., innovation, pro-activeness, and aggressiveness).
H2a: The manager’s traits (or networking ability) have a significant influence on managerial behaviors (i.e., innovation, pro-activeness, and aggressiveness).
H2b: The manager’s experience has a significant influence on managerial behaviors (i.e., innovation, pro-activeness, and aggressiveness).

These different managerial behaviors can result in various consequences culminating in overall business performance. Rural tourism businesses are often very small, requiring the manager to operate across the entire range of management functions rather than to specialize in just a single aspect (Sadler-Smith, Hampson, & Chaston, 2003). Discussing managerial disposition, Frese, Gelderen, and Ombach (2000) point out that people who know their environment well sometimes blindly follow routine without making explicit or considered strategic choices. In a related vein, owners who co-operate a farming business and its tourism offshoot are at both an advantage and disadvantage in their management of the latter enterprise. On the one hand, the owner’s plentiful knowledge of a certain situation and that of surrounding communities should increase his/her access to business opportunities and resources and thus promote the entrepreneurial activity (Carter, 2001).

The managerial preference could carry over from farming to tourism and thereby decrease the owner’s inclination toward aggressive management (Frese, et al., 2000). While years of experience with farming likely have cultivated at least some financial talent, the difference of requirements between agriculture and tourism may require an owner to acquire a large amount of new knowledge to make educated decisions or even to hire an agritourism expert for keeping up with changes in visitor interest. Thus, decision-making about the level of investment into tourism businesses and about the distribution of resources between agricultural and tourism businesses may be affected by managerial preference, namely, the willingness to innovate and take risks (Westhead, Ucbasaran, & Wrigh, 2005). Based upon this research, it is hypothesized that three types of managerial behaviors influence business performance (H 3)
H3: Managerial behaviors (i.e., innovation, pro-activeness, and aggressiveness) have significant influences on business performance, including financial benefit, self-fulfillment, and human relation.

[Insert Figure 1 here]

4. Methodology

4.1 Data Collection

The research targets owners/managers of small agritourism businesses who conduct an independent operating system in the Midwestern United States (i.e., Illinois, Indiana, Iowa, Missouri, Wisconsin, Michigan, and Ohio). According to the USDA census of agriculture (2009), there are 3,396 farms that run businesses related to agritourism and recreational services across the seven Midwestern states. At first, the authors of this research contacted specific organizations listed and registered in the Agricultural and Tourism Partner in Illinois (ATPI), which is a non-profit organization that promotes and educates the importance of agritourism throughout Illinois. Then, the survey’s range was extended to the neighboring states (i.e., Indiana, Iowa, Missouri, Wisconsin, Michigan, and Ohio) in order to reach the minimum threshold of survey sample size for the study to achieve statistical significance as well as to reduce the potential confounding effects associated with a specific destination.

Briefly, for Indiana, the Indiana farmers market, U-pick, and agricultural tourism directory published by Indiana Department of Agriculture were consulted. In the case of Iowa, agritourism businesses were identified using a directory of value-added agricultural businesses provided by the agricultural marketing resource center (www.agmrc.org) and Iowa State University Extension (www.extension.iastate.edu/VisitIowaFarms). Meanwhile, a division of the Missouri Department of Agriculture provided the ‘agrimissouri buyer’s guide’ (www.agrimissouri.com/buyersguide.html). The homepages of the Wisconsin Department of
Tourism (http://travelgreenwisconsin.com) and Wisconsin Agricultural Tourism Association Inc (http://visitdairyland.com) were utilized to find agricultural tourism information regarding Wisconsin. The Michigan Farm Marketing and Agritourism Association (http://www.michiganfarmfun.com) provided a directory of businesses related to agritourism in Michigan, and the Ohio Department of Development, Division of Tourism (http://consumer.discoverohio.com/) provided information about the agricultural tourism business in Ohio. To ensure the most complete list possible, www.pickyourown.org and www.pumpkinpatchesandmore.org were consulted to collect additional business contact information.

The response data were collected by using an online survey method due to its ability to quickly and economically reach a large sample (Dillman, Tortora, & Bowker, 1998). More specifically, at first, an invitation email was sent to small-business owners that contained a link to access the questionnaire on the web. In order to increase the response rate, a follow-up reminder was sent to those who had not responded two weeks after the initial invitation. Of 1,312 samples invited to the study, 152 agritourism business managers participated in the survey, yielding a response rate of 11.5 percent.

4.2 Operationalization of measurements

To the extent feasible, items and scales used in this survey are derived from previous research using a seven-point Likert scale. In addition, some ratio scales were used to measure the characteristics of businesses and managers as well as the age, level of education, and size of the business. More specifically, the items used to assess perceived external environment are based on the work of Duncan (1972), Slevin and Covin (1995), and Koh (1996) for assessing respondents’ perceptions of community, economic status, and government support.
The measurement of internal condition is mainly concerned with the managerial capability of owners and the suitability of the existing physical facilities for operating a tourism business. Like the items pertaining to perceived external environment, the dimensions to assess internal condition are derived from different studies regarding small-business management and the rural-tourism business. The main sources of indices are from Bowler et al. (1996), Wasilczuk (2000), and McGehee and Kim (2004). Some items from those studies have been adapted to the conditions of this particular research context. The measurements of the managerial behavior are mostly based on the research of Covin and Slevin (1989) and Slevin and Covin (1995). According to Covin and Slevin’s study, these items evolved from earlier research conducted by Khandwalla (1977) and Miller and Friesen (1983) measuring the entrepreneurial posture of business managers. The measure ‘business performance’ representing a self-evaluation by business managers of the outcomes of their operation were developed on the basis of several studies, such as Getz and Carlsen (2005), Naman and Slevin, (1993), and Haber and Reichel (2005).

4.3 Data Analysis

This study consists of two steps of data analysis: (1) descriptive analysis and (2) Partial Least Square (PLS) analysis to estimate the proposed relationships through the approaches of the measurement and structural models. First, a frequency analysis was used to show the characteristics and profiles of respondents (e.g., demographic information, business experiences). Next, this study used PLS to test the proposed hypotheses. PLS provides several advantages over other multivariate models, such as SEM and multiple regression; specifically, PLS requires minimal restrictions on measurement scales, sample size, and residual distributions (Hair, Sarstedt, Ringle, & Mena, 2012). As such, PLS analysis is an appropriate approach for assessing models that consider complex relationships and a large number of
manifest variables (over 20 proposed relationships) (Kleijnen, de Ruyter, & Wetzels, 2007). The main aim of PLS, which is based on a principal component analysis, is to maximize the variance explained for endogenous variables compared with SEM developed by a covariance matrix (Chin et al., 2003). That is, while the SEM is mainly to reproduce the theoretical model by the data tested concerning goodness-of-fit indices, PLS focuses on maximizing the variance explained from endogenous variables and performing the exploratory approach, which fits well within the aims of this current research.

Based on the partial nature of the PLS algorithm, PLS requires a relatively small sample size. For example, Chin (2010) recommended that 20 cases per a dependent variable are suitable to test the statistical model. A well-known standard for PLS sample size developed by Chin (2010) is to consider the number of structural paths and dependent variables. Specifically, Hair, Ringle, and Sarstedt (2011) suggest that ten times the largest number of structural paths directed at a particular construct in the inner path model should be used. Thus, the authors suggest that the number of valid samples collected in this research, 152, is sufficient to use PLS and in turn to obtain reliable results.

Two stages of data analysis tested the proposed model: (1) measurement model and (2) structural model estimations using Smart-PLS software. A series of criteria to estimate the measurement’s model focused on convergent and discriminant validity tests and used cross-loadings of Confirmatory Factor Analysis (CFA), Average Variance Extracted (AVE) with cut-off value over 0.50, and latent correlation analysis (Chin, 2010). Additionally, the basis for assessment of composite reliability was internal consistency reliability with a cut-off level of 0.80. To estimate the structural model, this study takes into account two assessments: coefficient of determination ($R^2$) and significant values of the paths’ coefficients (Urbach & Ahlemann, 2010). Last, the predictive relevance to test the model validity is estimated based upon $Q^2$ values (Geisser, 1974; Stone, 1974).
4.4 Control Variables

Previous studies identified that demographic characteristics of the managers have influences on his/her motivation for establishing the business and the direction in which he/she takes it. Thus, the demographic related variables affect decision-making and business growth (Kozan, Oksoy, & Ozsoy, 2006; Miller, Mcleod, & Oh, 2001). Accordingly, the variables of age and educational level are controlled in estimating the analytical model.

5. Results

5.1 Characteristics of the Tourism-Business Managers

Background information about agritourism business managers comprise two aspects (see Table 1). The first is demographic information, such as gender, education, and age. The other part represents business-management characteristics, including experiences with managing the agricultural or the tourism business and level of participation in tourism-related associations.

Specifically, of those survey respondents who operate an agritourism business in this study, males are slightly more prevalent (51.9%) than female managers. These managers are highly educated. For example, over 75% of respondents have a bachelor’s degree or higher. This result is consistent with the findings of Chell, Haworth, and Brearley (1991) that the well-educated managers are more likely to perceive entrepreneurship as tied to searching for information and knowledge. The average age of the respondents was 56.7 years with a standard deviation of 10.8 years. In terms of business experiences, the tourism managers have run their own businesses for an average of 19.6 years, whereas managers have run their agricultural businesses for 19.3 years and tourism businesses for 12.4 years on average. They have engaged in, on average, three numbers of associations related to agriculture and/or tourism. Lastly, these enterprises rely on tourism business to generate about 32.3% of their total income.
5.2 Hypothesis Estimation

Confirmatory Factor Analysis (CFA) was initially conducted using SmartPLS software with 152 response data. Following the estimations of the measurement model discussed in the methodology section, indicator reliability was first assessed by examining the confirmatory factor loadings. All of the indicator variances are statistically significant at the 0.05 p-value, but it is shown that several items have low factor scores (below 0.60)—for instance, in constructs of ‘community’ (Comm_3 = 0.31, Comm_4 = 0.25, and Comm_5 = 0.42), ‘economic status’ (ES_3 = 0.47 and ES_5 = 0.49), ‘organizational support’ (OS_1 = 0.47, OS_2 = 0.45, and OS_3 = 0.29), and ‘self-fulfillment’ (SF = 2 = 0.51). A revised measurement model is performed after removing factors that show low factor scores. Table 2 presents that all of the item loadings are significant and over the cut-off point (i.e., 0.60). Furthermore, the CFA result indicates that the factor loadings reflecting the measurement constructs are much higher than ones with other principal constructs, which confirms the discriminant validity suggested by Chin (2010) (see Table 2).

The square root of Average Variance Extracted (AVE) was then calculated to test the convergent validity for eleven latent variables with two control variables (i.e., age and income), and the values were compared with other constructs to assess discriminant validity. The results of the analysis show that the AVEs (the mean-squared loading for each construct) of each construct are larger than the cross-correlations of other constructs, which suggests that each reflective construct is distinct from other constructs in the measurement model, that is, it confirms discriminant validity (Fornell & Bookstein, 1982). Additionally, the composite reliability was tested by assessing internal consistency scores, and all reliabilities are over 0.78, which indicates sufficiently high levels to satisfy tolerable reliability (Hair, et al., 2011).
The structural model was finally estimated using SmartPLS and a bootstrap resampling method to obtain p-values (see Figure 2). The results of the analysis partially support hypothesis 1. While economic status positively affects all three facets of managerial behaviors (b = 0.32 for innovation, b = 0.34 for pro-activeness, and b = 0.30 for aggressiveness, p < 0.001), community has a positive influence on aggressiveness only (b = 0.13, p < 0.05), and organizational support has negative influences on aggressiveness (b = -0.30, p < 0.01) and pro-activeness (b = -0.19, p < 0.05). With regard to hypothesis 2, the construct of the networking ability positively affects both innovation (b = 0.13, p < 0.05) and pro-activeness (b = 0.25, p < 0.001); however, business experience negatively influences innovation (b = -0.29, p < 0.01) in the aspect of managerial behavior. In terms of hypothesis 3, different constructs of managerial behavior show different effects on business performance. Specifically, innovation shows positive effects on human relation (b = 0.20, p < 0.01) and self-fulfillment (b = 0.26, p < 0.01), whereas pro-activeness significantly influences financial benefit (b = 0.21, p < 0.01) and human relation (b = 0.27, p < 0.001) in positive ways. Last, aggressiveness exhibits a positive relationship with only human relation (b = 0.13, p < 0.05).

For control variables, age negatively affects both innovation (b = -0.23, p < 0.01) and aggressiveness (b = -0.19, p < 0.05) in the managerial behavior. Income has positive influences on pro-activeness in the process stage (i.e., managerial behavior) (b = 0.15, p < 0.05) and human relation in the consequence stage (i.e., business performance) (b = 0.28, p < 0.001).

[Insert Figure 2 here]

Next, we assessed the predictive relevance of the model validity with a nonparametric Ston-Geisser’s Q² test (Geisser, 1975; Stone, 1974), which proposes that the model should be able to properly predict each endogenous variable. The Q² value can be obtained by a
blindfolding procedure, whereby a certain number of cases are omitted from the sample, and the model parameters are estimated to predict the omitted values (Tenenhaus, Vinzi, Chatelin, & Lauro, 2005). The omission distance $d$ should be decided so that the number of valid samples divided by number of $d$ is not an integer. Hair et al. (2011) suggested that the $d$ values should fall between 5 and 10. Accordingly, this study conducted a blindfolding estimation using SmartPLS with $d$ values of 5 and focused on the cross-validated redundancy that considers the estimates of both measurement and structural models for data prediction.

As shown in Table 4, all of the $Q^2$ values are higher than ‘0’, which confirms that all the explanatory latent constructs exhibit predictive relevance (Chin, 2010; Hair et al., 2011).

6. Conclusion

This research proposed a comprehensive model to understand agritourism business management in terms of antecedent, process, and consequent stages. While previous studies treat the relevant constructs with a single system of operation, we regard them individually within stages (i.e., antecedents, process, and consequence). Until now, an overlapping, mutual-interaction approach used to study small-scale agritourism has failed to develop a meaningful business model to systematically describe the business. This study, therefore, chose to apply an alternative approach that focused on the sequential connection among individual factors in agritourism business operation. By doing so, this paper identifies the elements that positively and negatively lead to three types of managerial behaviors (i.e., innovation, pro-activeness, and aggressiveness) that have positive influences on business performance, including financial benefit, human relation, and self-fulfillment.

Specifically, this study extends a research framework that assesses agritourism manager behaviors in a more comprehensive manner by adopting two different theories (i.e., contingency theory and entrepreneurial behavior) (Donaldson, 2001; Hatten, 2015). That is,
the research provides a more holistic measurement framework that proposes an integrated model including external environment and internal characteristics of rural agritourism business rather than focusing on partial aspects of the entrepreneur. As a result, it shows the constructs of perceived external environment and internal condition inducing the changes of managerial behaviors. More importantly, the results of this study reveal that the different managerial behaviors correspond with selective environmental and internal characteristics.

For example, organizational support negatively affects managerial behavior. This would imply that managers of rural agritourism businesses might dismiss or not consider organizational support that include market information, training, and financial support as the gauge of their managerial decisions. Explanations for this are founded upon the unique characteristics of small agritourism businesses. First, when an agritourism business is run as part of a retirement plan, managers prefer investing in the creation of a new attraction and product by drawing from existing resources as opposed to borrowing from outside. This is only possible, of course, if the managers already have the requisite money for building small attractions, which is just as good as achieving their psychological purposes such as meeting new people through their tourism business. Second, when the agritourism manager is not motivated by financial gain, fiscal support from outside could be regarded as a threat to the balance of the current, “best-fit” approach. Thus, if we posit that variables designed to maximize the financial benefit suits only higher-risk behaviors, rejecting outside monetary support would be best for the more modest manager just described (McGehee & Kim, 2004).

Another notable finding is that business experience negatively influences innovation behavior. This could produce another possible explanation for managerial behavior. As the business adapts to such changes in the external environment, managers of agritourism enterprises may opt between two modes of behavior for achieving the respective business goals they pursue: innovative and entrepreneurial or modest and uncompetitive (Lai, Morrison-
Saunders, & Grimstad, 2017). The results indicate that this tendency is more salient in experienced managers in the agritourism business.

This study also suggests that managerial behavior is the key factor as a mediator between the antecedents and consequences of the agritourism enterprise. In other words, corresponding to entrepreneurship, it suggests that those entrepreneurship behaviors representing high self-efficacy, inclination for change, favor toward innovation, and a strong goal orientation lead to positive agritourism performance (Frey & George, 2010). More specifically, as it more often functions as a lifestyle conduit than as a financial resource, rural agritourism is most concerned with the manager’s sense of self-fulfillment and connectedness with others. Innovative managerial behavior, which is encouraged by the perception of economic status and networking ability and are exemplified by the offering of motivation and encouragement, was cited as the surest path toward the managerial gratification and human connection and, in turn, the greatest safeguard of the business’s viability. The evolution of an agritourism operation, then, could be understood as the process of adapting behavior when needed: when the need is unassuming, the behavior is modest. Since personal enjoyment is valued over financial gain, maintaining a set of managerial behaviors instead of focusing on just innovation is important. This is similar to the argument of contingency theory that emphasizes the fitness of operation (agritourism management) (Mahadevan, 2014). In particular, the managerial preference lies with selective innovation oriented toward ensuring non-financial performance as well as proactive behaviors to certifying financial benefits (Tew & Barbieri, 2012). With regard to contingency theory, which emphasizes best fits to the particular goals of the business rather than maximizing the use of resources and products, the results of this research verifies the heterogeneous effects of managerial behaviors on different types of business performance.

From a managerial perspective, this study offers fresh perspectives and diverse information for owners, consultants, and policymakers concerned with the small tourism
business in rural areas. Sharing updated information with the community about agricultural business and the economics of local markets is vital for managers who run small agritourism businesses to bring about an entrepreneurial mind-set to managers. In doing so, collaboration with DMOs, which help agritourism mangers monitor local economic conditions and find suppliers and labors in the relevant market, leads to proactive and innovative beliefs. On the other hand, there is a concern to provide the agritourism managers with organizational support, which acts as an inhibitor to pro-active behavior. Instead, it is suggested to provide various opportunities to improve networking capability.

Future studies on small agritourism businesses and their management demand require more deliberate research approaches and planning to validly untangle the complexities of their dynamics. We could enlarge the understanding of agritourism management by applying various approaches and repeated study to different situations of operation. In-depth interviews with business managers, for example, could clarify and expand these approaches by perhaps uncovering a wider variety of indices to weigh. In addition, classifying agritourism operations by business type or managerial personality could help to pinpoint and refine our description of such behavior. Finally, the unique characteristics of agritourism as a supplemental business lend themselves well to an, as yet, largely unexplored research topic. It is hoped that this study can act as a guide for this future research.
References


Getz, D., & P. Nillsson. (2004). Responses of family businesses to extreme seasonality in


Figure 1. The Proposed Model

Antecedent

Perceived External Environment

- Community
- Economic status
- Organizational (or governmental) Support

Internal Condition

- Networking ability
- Business experience

Process

Managerial Behavior

- Innovation
- Pro-activeness
- Aggressiveness

Consequence

Business Performance

- Financial benefit
- Human relation
- Self-fulfilment

Control variables

- Age
- Income
Figure 2. The Results of Structural Model

Perceived External Environment
- Community
- Economic status
- Organizational Support

Internal Condition
- Networking Ability
- Business experience

Managerial Behavior
- Innovation: $R^2 = .20$
- Pro-activeness: $R^2 = .19$
- Aggressiveness: $R^2 = .19$

Business Performance
- Financial benefit: $R^2 = .13$
- Human relation: $R^2 = .25$
- Self-fulfilment: $R^2 = .15$

Control variables
- Age
- Income

Note: *p < .05, **p < .01, ***p < .001
Table 1
Employees’ Demographic Profile

<table>
<thead>
<tr>
<th>Item</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Demographic</strong></td>
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</tr>
<tr>
<td><strong>Gender (n=132)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>69</td>
<td>51.9</td>
</tr>
<tr>
<td>Female</td>
<td>63</td>
<td>47.4</td>
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<tr>
<td><strong>Education (n=152)</strong></td>
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<tr>
<td>High School</td>
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<tr>
<td>Some College</td>
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<td>Bachelors Degree</td>
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<tr>
<td>Graduate Degree</td>
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</tr>
<tr>
<td><strong>Mean</strong></td>
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</tr>
<tr>
<td><strong>SD</strong></td>
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<td></td>
</tr>
<tr>
<td><strong>Age (n=152)</strong></td>
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<td></td>
</tr>
<tr>
<td></td>
<td>56.7</td>
<td>10.8</td>
</tr>
<tr>
<td><strong>Business Experience (n = 152)</strong></td>
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</tr>
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</tr>
<tr>
<td>Year of Operating Ag Business</td>
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</tr>
<tr>
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</tr>
<tr>
<td>Number of associations involved in</td>
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</tr>
<tr>
<td></td>
<td>Comm</td>
<td>ES</td>
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<td>------</td>
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<tr>
<td>Comm1</td>
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<td>ES6</td>
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<td>OS4</td>
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<td>OS5</td>
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</tr>
<tr>
<td>OS6</td>
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</tr>
<tr>
<td>OS7</td>
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<td>Net1</td>
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<td>BE1</td>
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<td>0.03</td>
</tr>
<tr>
<td>BE2</td>
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<td>-0.08</td>
</tr>
<tr>
<td>BE3</td>
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<td>Proac1</td>
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<td>0.28</td>
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<tr>
<td>Proac2</td>
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<td>Agg1</td>
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<td>Agg2</td>
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<tr>
<td>HR2</td>
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<td>SF1</td>
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<td>SF3</td>
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<tr>
<td>SF4</td>
<td>-0.05</td>
<td>0.13</td>
</tr>
</tbody>
</table>

Note: Comm refers to Community; ES refers to Economic Status; OS refers to Organizational support; NA refers to Networking Ability; BE refers to Business Experience; Inno refers to Innovation; Proact refers to Pro-activeness; Agg refers to Aggressiveness; FB refers to Financial Benefit; HR refers to Human Relation; SF refers to Self-Fulfillment
<table>
<thead>
<tr>
<th>Constructs</th>
<th>Reliability</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
<th>11</th>
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<tbody>
<tr>
<td>1. Community</td>
<td>0.95</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.84</td>
</tr>
<tr>
<td>2. Economic status</td>
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<td></td>
<td></td>
<td></td>
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<td></td>
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<tr>
<td>3. Organizational support</td>
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<td>0.23</td>
<td>0.44</td>
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<td></td>
<td>0.70</td>
</tr>
<tr>
<td>4. Networking ability</td>
<td>0.79</td>
<td>0.06</td>
<td>0.20</td>
<td>0.07</td>
<td></td>
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<td></td>
<td></td>
<td></td>
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<td>5. Business experience</td>
<td>0.83</td>
<td>0.02</td>
<td>0.02</td>
<td>-0.06</td>
<td>0.15</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.79</td>
</tr>
<tr>
<td>6. Innovation</td>
<td>0.87</td>
<td>0.14</td>
<td>0.32</td>
<td>0.11</td>
<td>0.18</td>
<td>-0.16</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.83</td>
</tr>
<tr>
<td>7. Pro-activeness</td>
<td>0.95</td>
<td>0.14</td>
<td>0.32</td>
<td>-0.02</td>
<td>0.33</td>
<td>0.11</td>
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<td></td>
<td></td>
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<td>0.95</td>
</tr>
<tr>
<td>8. Aggressiveness</td>
<td>0.88</td>
<td>0.20</td>
<td>0.23</td>
<td>-0.14</td>
<td>0.12</td>
<td>-0.06</td>
<td>0.48</td>
<td>0.40</td>
<td></td>
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<td>0.84</td>
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<td>9. Financial benefit</td>
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<td>0.15</td>
<td>0.49</td>
<td>0.31</td>
<td>0.28</td>
<td>0.20</td>
<td>0.29</td>
<td>0.31</td>
<td>0.21</td>
<td></td>
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<td>0.76</td>
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<tr>
<td>10. Human relation</td>
<td>0.89</td>
<td>0.01</td>
<td>0.26</td>
<td>-0.06</td>
<td>0.23</td>
<td>-0.07</td>
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<td>0.26</td>
<td>0.27</td>
<td></td>
<td>0.89</td>
</tr>
<tr>
<td>11. Self-fulfillment</td>
<td>0.89</td>
<td>0.02</td>
<td>0.32</td>
<td>0.05</td>
<td>0.12</td>
<td>-0.02</td>
<td>0.35</td>
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<td>0.26</td>
<td>0.36</td>
<td>0.47</td>
<td>0.85</td>
</tr>
</tbody>
</table>

Note: Reliability is calculated by internal consistency reliability; Items on the diagonal (in bold) represent AVE scores;
### Table 4.
The Results of Predictive Relevance

<table>
<thead>
<tr>
<th>Category</th>
<th>SSO</th>
<th>SSE</th>
<th>$Q^2$ (1-SSE/SSO)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Innovation</td>
<td>85.9</td>
<td>64.1</td>
<td>0.25</td>
</tr>
<tr>
<td>Pro-activeness</td>
<td>45.8</td>
<td>39.7</td>
<td>0.13</td>
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<tr>
<td>Aggressiveness</td>
<td>82.2</td>
<td>73.8</td>
<td>0.10</td>
</tr>
<tr>
<td>Financial benefit</td>
<td>118.3</td>
<td>110.9</td>
<td>0.06</td>
</tr>
<tr>
<td>Human relation</td>
<td>48.9</td>
<td>46.3</td>
<td>0.05</td>
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<tr>
<td>Self-fulfillment</td>
<td>105.5</td>
<td>92.3</td>
<td>0.13</td>
</tr>
</tbody>
</table>

Note: SSO refers to Sum of squares of observations for one manifest variable; SSE refers to Sum of squared prediction errors for one manifest variable
Appendix I. Survey

1. Questions in this section are concerned with your perception of the business environment. Please circle one number in each statement using the following scale.

<table>
<thead>
<tr>
<th>1 = Strongly disagree</th>
<th>2 = Moderately disagree</th>
<th>3 = Slightly disagree</th>
<th>4 = Neutral</th>
<th>5 = Slightly agree</th>
<th>6 = Moderately agree</th>
<th>7 = Strongly agree</th>
</tr>
</thead>
</table>

In my area,

**Perceived External Environment**

**Community**
- Attractions for tourism activities are abundant
- Availability of service facilities for tourism business is high
- Attitude of community toward agri-tourism business is favorable
- Many agricultural business have been diversified into tourism
- Many agricultural business have been successful in tourism

**Economic Status**
- Local economic conditions for running agri-tourism business is favorable
- The networking opportunities for tourism business are plentiful
- It is easy to find labor for agri-tourism business in my town
- There is enough customer demand for agri-tourism activities
- There are suppliers for agri-tourism business in close distance
- Investment incentive for agri-tourism business has been adequate

**Organizational Support**
- There are proper organizations to get business counseling and support
- It is easy to have education and training for business operation skills
- It is easy to get information about customers and market trends
- It is easy to access financial support from institutions
- The tax incentives for agri-tourism business has been helpful
- Process to obtain necessary permits to operate is simple
- It is easy to get support from organizations for marketing activity

**Manager Behavior**

**Innovation**
- I like to create new products and services
- I like to change existing products and services
- I like to try new ways of doing things in my business management

**Pro-activeness**
I am ahead of other competitors in introducing ideas and services
I typically initiate action that competitors then respond rather than
responding to actions competitors initiate

Aggressiveness
I believe that a bold and wide range of acts is necessary to
achieve my objectives
When facing uncertainty, I usually take an aggressive posture in
order to maximize the probability of exploiting an opportunity
I frequently take high risk options with a chance of very high
return

2. Please answer the questions about physical nature of business with regard to each of item

**Internal Condition**

**Manager Trait**
- Number of tourism related organizations or associations engaged in
- Number of official positions in the community or associations hold
- Number of tourism business management skill training programs participated in

**Business Experience**
- Years of operating agricultural business
- Years of operating business in the current location
- Years of operating agricultural tourism business

3. Please circle one number in each statement using the following scale.

<table>
<thead>
<tr>
<th>1 = Very dissatisfied</th>
<th>2 = Dissatisfied</th>
<th>3 = Slightly dissatisfied</th>
<th>4 = Neutral</th>
<th>5 = Slightly satisfied</th>
<th>6 = Satisfied</th>
<th>7 = Very satisfied</th>
</tr>
</thead>
</table>

**Business Performance**

- Financial benefit
- Sales growth
- Return on investment
- Successful diversification into tourism
- Creation of jobs for family

**Human relation**
- Seeing people enjoy the place
- Meeting new people

**Self-Fulfillment**
- Effective responsiveness to change in the market
<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pride of ownership</td>
<td></td>
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<tr>
<td>Making my own decisions</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Spending time with family (working at home)</td>
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</tbody>
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