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Carla Barbieri

Department of Parks, Recreation and Tourism University of Missouri

Christine Tew

Department of Parks, Recreation and Tourism University of Missouri

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Barbieri, Carla and Tew, Christine, "Perceived Impact of Agritourism on Farm Economic Standing, Sales and Profits" (2016). *Travel and Tourism Research Association: Advancing Tourism Research Globally*. 34.
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Perceived Impact of Agritourism on Farm Economic Standing, Sales and Profits

Carla Barbieri
Department of Parks, Recreation and Tourism
University of Missouri

and

Christine Tew
Department of Parks, Recreation and Tourism
University of Missouri

ABSTRACT

A survey was conducted in 2008 to examine the economic performance of Agritourism in Missouri. Responses from 164 agritourism farms show that although the majority of agritourism operators do not receive direct sales from this activity, they perceive it as important for the continued operation of their farm. Agritourism is also perceived as having a positive impact on farm profits. Multiple linear regressions show that physical, agritourism, and managerial farm resources are associated with the perceived economic situation of the farm business and with the percentage of farm sales derived from agritourism.

Keywords: *Agritourism, farm enterprise diversification, farm tourism, farm profits, farm sales.*

INTRODUCTION

Family farms are facing severe economic challenges due to large-scale commodity production, price instability, increasing land values and agricultural input costs, and reduced government support (Salamon, 2003; Busby & Rendle, 1999; Ilbery, 1991). As a result, many farmers have adopted coping strategies, including taking off-farm employment, abandoning farming and developing non-farm enterprises. This situation is not unfamiliar to small family farms in Missouri, where farmers are reducing their farmland, increasing their non-farm incomes and shifting from a farming to a rural lifestyle (Valdivia, 2007). For example, in 2007 the USDA's Census of Agriculture reported that 160,000 U.S. farms were participating in some form of direct sales/agritourism with receipts totaling \$566,834,000, an increase of approximately 180% from 2002. Of those, 23,350 farms (558 in Missouri) claimed income from recreational activities not related to production, such as farm tours, hunting and fishing.

On-farm entrepreneurial diversification, especially in the form of agritourism, has been frequently promoted as a means to face this challenging agricultural context. That diversification has been suggested to create a more stable, and often higher, income for the producer or to supplement farm incomes in times of economic distress, such as a poor harvest or depressed prices (Barbieri et al., 2008; Brandth & Haugen, 2007; Fisher, 2006; McGehee & Kim, 2004; Nickerson et al., 2001). However, while research into agritourism has recently increased in the U.S., it is not yet settled whether this entrepreneurial endeavor is bringing economic benefits to

farm operators. Specifically, little is known about the perceptions of this activity on the economic performance of the farm from the operator perspective.

LITERATURE REVIEW

Agritourism is usually defined as any recreational or leisure activity programmed on a working farm or other agricultural operation (e.g., nursery, mill) with the purpose of attracting visitors (Caballé, 1999; Che et al., 2005; Ollenburg & Buckley, 2007). Agritourism is commonly approached from a sociological perspective as one type of on-farm entrepreneurial diversification. As such, studies on agritourism stress its entrepreneurial value, either pursuing direct (e.g., revenue enhancement) and indirect (e.g., cross marketing of other farm products) economic gains or intrinsic entrepreneurial goals (Barbieri & Mahoney, 2009; McNally, 2001; Nickerson et al., 2001).

The economic impact of agritourism on farm operations has been the focus of little research and is an area of disagreement in the literature. At one end of a continuum there are successful stories where tourism represents a significant percentage of the farm income (Nilson, 2002), however at the other end of the continuum, agritourism is reported to barely provide sufficient revenue to increase cash flow (Fleischer & Pizam, 1997; Sharpley, 2002; Veeck et al., 2006). Either way, it is extensively agreed that although not always highly profitable, agritourism generates enough revenue to enable farmers to continue their agricultural operations, especially in the case of a poor production year (Barbieri & Mahoney, 2009; Busby & Rendle, 2000; Fisher, 2006; McGehee, 2007; Nickerson et al., 2001). Furthermore, the majority of agritourism operations serve as supplemental sources of income while agricultural production remains the primary focus (Veeck et al., 2006; Nickerson et al., 2001).

Although many seek the economic benefits of agritourism activities, it seems that the actual increase of revenues is not universal, rather it is specific to characteristics of the individual farm or business development (Veeck et al., 2006). For example, the time during which an agritourism operation is most vulnerable because of economic considerations occurs during the early period of the development process, typically the first five years of operation (Busby & Rendle, 1999). In addition, there is a regional effect influencing the revenues derived from agritourism, for the most economically successful agritourism operations generate revenues by offering multiple activities and are often located near other attractions (Saxena et al., 2007; Veeck et al., 2006; Fleischer & Tchetchik, 2005). The economic benefits of agritourism may also be perceived differently by farms with different characteristics. For example, farms with greater acreage may perceive agritourism as a convenient economic tool as these activities can alleviate the tax burden and other management costs (Nickerson et al., 2001).

An important piece of information with limited understanding pertains to the farmers' perceptions of the role of agritourism on the economic performance of the farm. This information is critical for the purpose of this study. Understanding those perceptions is important as the perceived outcome of an entrepreneurial endeavor has a crucial role in its sustainability (Kuratko et al., 1997). While a positively perceived outcome reinforces the entrepreneur behavior, the perception of a negative outcome can lead to the disengagement of a venture.

METHODOLOGY

In 2008, a survey was conducted to collect data from 564 Missouri farmers with diversified enterprises, including agritourism. The survey collected information on the characteristics of responding farmers and their land, types of agritourism offerings, and different business indicators (i.e., economic performance, marketing strategies, and management resources). The study sample was drawn from farms affiliated with Missouri Department of Agriculture marketing programs and a keyword internet search. In addition, a snowball sampling technique was also employed in this study. A total of 260 farm operators (43.6% response rate) completed the questionnaire. This study only includes the 164 respondents (29.4%) involved in agritourism.

The purpose of this study is to examine the economic gains of agritourism development on Missouri farms as perceived by farm operators. Perceived economic indicators examined are: (1) change of farm profits after developing agritourism operations; (2) economic situation of the farm business as measured in four mutually exclusive categories: very profitable, generating some profit, breaking even and operating at a loss; and (3) percentage of farm sales derived from agritourism activities.

In addition, this study utilized multiple linear regressions to examine whether six types of farm resources (independent variables) are associated with the economic situation of the farm business and the percentage of farm sales derived from agritourism activities (dependent variables). Independent variables included in the models were: farm acreage and location as descriptors of physical resources; operator's off-farm employment and number of visitors received in 2008 as indicators of agritourism resources; and number of marketing methods and association memberships as indicators of managerial resources. Tests revealed no collinearity issues among the independent variables included in the regression tests.

RESULTS AND DISCUSSION

Profile of responding farms and their operators

Responding agritourism farms have greater acreage (mean=333.1 acres) than the state average (mean=269; USDA: NASS, 2007). About two-thirds (67.3%) are located at least 30 miles away from an urbanized area with at least 50,000 pop. and the majority are still in the business of farming (85.2%), mainly growing specialty crops (58.4%). Respondents hold traditional family farm structures as the majority are owned and operated by an individual (65.0%) or a non-corporate family (32.5%). Responding farmers represent an even distribution between first (48.8%) and multi-generational farms (50.6%). Although they have different educational backgrounds, over a quarter (26.1%) have formal education in both agriculture and business. The majority of respondents (53.4%) are at least 55 years old.

About one-fifth (19.6%) of respondents have entered into the agritourism market in the last two years, while 40.6% have been receiving visitors for more than ten years, showing a co-existence of new entrants alongside well-established agritourism farms in Missouri. Respondents are very proactive in their marketing strategies, using about five (mean=4.6) marketing methods on average, and in their involvement with agriculture, business and tourism associations. The majority (60.5%) do not have written business or marketing plans guiding their entrepreneurial endeavors.

Characteristics of agritourism offerings and their economic impacts on the farm

Table 1 Characteristics of the Agritourism Offerings in Missouri Farms

	<i>n</i>	Statistic
Most Frequent Recreation Activities (n=162)		
Educational and leisure tours	102	62.8%
U-pick or U-harvest	61	37.7%
Observation/Participation of agricultural processes	56	34.6%
Classes, seminars or workshops	50	30.9%
Festivals, events and shows	50	30.9%
Most Frequent Hospitality Services (n=164)		
Tasting rooms	41	25.0%
Cookouts, barbecues or picnics	38	23.2%
Weddings or private parties	56	23.0%
Food stand	35	21.3%
Catering or customized meals	27	16.5%
Number of Visitors for 2008 (n=152)		
Total number of visitors		1,203,406
Mean per farm		7,917
Median		425
Most Frequent Type of Visitors (n=162)		
Seniors	119	73.5% ¹
Families with children 12 or younger	119	73.5%
Couples without children	117	72.2%
Families with teens or young adults	108	66.7%
Organizations/groups	99	61.1%

¹ Percentages may sum to more than 100% as respondents were able to select more than one type of visitor.

Missouri agritourism farms offer a large variety of recreational activities with education and leisure tours (62.8%), u-pick/u-harvest crops (37.7%), and observation of agricultural processes (34.6%) being the most prevalent (Table 1). On average, farms offer four different recreational activities ($M=3.7$). The majority (64.6%) also offer at least one hospitality service, most frequently related to food and beverages. Responding farms received more than 1.2 million visitors in 2008, mostly seniors (73.5%), families with young children (73.5%) and couples without children (72.2%).

Almost evenly divided into quarters, participating farms have gross sales in the following brackets: less than \$10,000 (28.3%); \$10,000-\$49,999 (23.0%); \$50,000-\$249,999 (26.3%) and \$250,000 or more (22.4%), as shown in table 2. Importantly, the majority (54.5%) reported having a very profitable (22.2%) or a profitable (32.3%) farm; 27.8% reported operating at a loss. The majority (61.9%) reported not having direct sales from their recreation-related activities, but for a small proportion (14.9%) recreation represents at least 30% of their total sales. However, as measured in a five-point Likert scale anchoring in one (Not Important) and five (Extremely Important), respondents perceive that agritourism is important for the continued operation of their farm ($M=3.4$).

Table 2 Economic Indicators of Responding Agritourism Farms in Missouri

	<i>n</i>	Statistic
2008 Farm Gross Sales (n=152)		
Less than \$10,000	43	28.3%
\$10,000-\$49,999	35	23.0%
\$50,000-\$249,999	40	26.3%
\$250,000 or more	34	22.4%
Mean ¹		(3.97)
Recreation-Related Sales Percentage (n=155)		
None (0%)	96	61.9%
Less than 30%	36	23.2%
30% to 59%	10	6.5%
60% or more	13	8.4%
Sales Percentage (Mean) ²		(13.10)
Perceived Importance (Mean) ³		(3.28)
Stated Farm Economic Situation (n=158)		
Very profitable	35	22.2%
Generating some profit	51	32.3%
Breaking even	28	17.7%
Operating at a loss	44	27.8%

¹ Original scale: (1) Less than \$1,000; (2) \$1,000-\$9,999; (3) \$10,000-\$49,999; (4) \$50,000-\$99,999; (5) \$100,000-\$249,999; (6) \$250,000-\$499,999; (7) \$500,000-\$999,999; (8) \$1,000,000 or more.

² Measured in a 5-point Likert Scale anchoring in (1) = Not important and (5) = Extremely Important.

Results show that agritourism is perceived to be having a positive impact on farm profits. More than one-third (36.2%) of respondents reported that their profits significantly increased after adding agritourism activities on their farms, and an additional 28.2% of respondents saw a slight increase in their profits (Table 3). Less than one percent (0.6%) of respondents indicated that their profits decreased. Remarkably, nearly one fourth (21.1%) of farms reported a profit increase of at least 100% and respondents reported an average profit increase of 55.6%.

Table 3 Perceived Changes in Farm Profits after Offering Agritourism Activities

	<i>n</i>	Statistic
Nature of Change in Profits after Agritourism Development (n =152)		
Significantly increased	59	36.2%
Slightly increased	46	28.2%
Did not change	57	35.0%
Slightly decreased	0	0.0%
Significantly decreased	1	0.6%
Percent of Profit Change after Agritourism Development (n =90)		
1% to 10%	25	27.8%
11% to 30%	21	23.3%
31% to 99%	25	27.8%
100% or more	19	21.1%
Percent Increase (Mean) ¹		(55.6%)

¹ Percent Decrease not reported due to low number of responses in the category.

Resources associated with the farm economic situation and the percent of recreation-related sales

Regression analysis resulted in two significant models indicating that several physical, agritourism and marketing resources are associated with two farm economic indicators (i.e., farm economic standing and percent of recreation-related sales). The first significant model ($R^2=.168$; $p=.001$) shows that farm acreage ($\beta=.182$; $p=.047$) and the number of association memberships ($\beta=.294$; $p=.004$) are positively associated with the perceived economic situation of the farm in terms of its perceived profitability, while the percent of time operators work off-farm ($\beta=-.189$; $p=.035$) shows a negative association (Table 4). Those results are not surprising, as farms with larger acreage can have more agriculture production, which along with generating revenues from farming, may enhance the agritourism appeal of the farm. In addition, greater social networking through membership in professional and industry associations can positively impact business performance, as previously found (Barbieri & Mshenga, 2008). The distance between the farm and an urban cluster, the number of visitors in 2008 and the number of marketing methods employed on the farm were not found to be associated with the perceived economic situation of the farm.

The second significant model ($R^2=.280$; $p<.001$) shows a negative association between the time dedicated to off-farm employment ($\beta=-.171$; $p=.040$) and the percentage of farm sales coming from recreation-related activities, while the number of visitors received in 2008 ($\beta=.330$; $p<.000$) and the number of marketing methods employed ($\beta=.237$; $p=.009$) are positively related to percentage of sales from recreation. These results are expected, as a more proactive advertising strategy may reach a larger audience and generate more farm visitors. Also, the more visitors the farm receives, the greater the opportunity to capture more revenues either directly (e.g., from entrance fees) or indirectly (e.g., through the sale of their value added products). No significant associations were found regarding the farm acreage and its distance from urban cluster and this economic indicator.

Table 4 Multiple Linear Regression of Farm Resources Associated with Farm Economic Standing and Percent of Sales from Recreation

Independent Variables	DV – Economic Indicators (Standardized β and Significance)	
	Economic Situation ^a	Recreation Sales
Farm acreage	.182 *	-.149
Distance from urban cluster	.010	.129
Operator's off-farm employment	-.189 *	-.171 *
Number of visitors in 2008	-.030	.330 ***
Number of marketing methods	-.180	.237 **
Number of association memberships	.294 **	.031
<i>p</i> value	.001	.001
R^2	.168	.280
<i>Adjusted R</i> ²	.125	.243

* $p < 0.05$

** $p < 0.01$

*** $p < 0.001$

^a Farm Economic Situation measured on a Likert Scale anchoring in (1)=Operating at a loss; (4)=very profitable)

CONCLUSIONS

In examining the economic gains of agritourism development on farms, this study found that although the majority of Missouri farm operators do not receive direct sales from the activity, they perceive it as being important for the continued operation of their farms. Results also show that agritourism is perceived as having a positive impact on farm profits, with the majority reporting at least some increase after adding agritourism activities and nearly one-fourth reporting a two-fold or more profit increase. Those results are especially important considering the exponential growth of agritourism in the U.S. and in Missouri during the past five years.

Results also show that physical (i.e., acreage), agritourism (i.e., off-farm employment, number of visitors) and managerial (i.e., number of marketing methods, association memberships) farm resources are associated with the perceived economic situation of the farm business and/or the percentage of farm sales derived from agritourism. Those results have important implications for the development and promotion of agritourism. Farm physical characteristics (i.e., distance from an urban area, acreage) have an influence on the overall farm business, but do not appear to impact the generation of revenue from recreation. Those results suggest that physical farm resources should be neither an impediment nor an advantage for the development and growth of agritourism enterprises. Hence, farms within a remoteness-closeness spectrum have similar opportunities to develop agritourism operations.

The negative association between the farmer's employment off-farm and the two economic indicators suggests that both the practice of farming and agritourism require a considerable investment of operators' labor and time. That investment is a factor that needs to be considered, especially when promoting the development of agritourism among new entrants to agriculture, hobbyists and rural lifestyle farmers. It is also important to note that more proactive advertisers and social networkers have higher perceptions of the positive economic impact of agritourism. Hence, agritourism operators should realize the importance of employing a diverse array of marketing strategies. They should also strengthen their relationships within the industry through social networks in professional organizations to capture a wider clientele while capitalizing on the resources provided by those organizations.

The results of this study also shed light on issues deserving additional exploration in future research on agritourism. Given that the majority of Missouri farm operators do not receive direct sales from agritourism, but the majority perceive this activity as important for the continued operation of their farm and believe that it generated at least some increase in farm profits after its development, future studies should explore a wide range of economic benefits agritourism may bring to farms. For example, if agritourism is not generating revenues directly, it may be serving as a marketing channel to aid in the sale of other farm products. Given that the number of visitors does not seem to impact the perceived economic situation of the farm but positively influences the recreation-related percentage of farm sales, future studies should examine the impact of the number of visitors on the economic performance of the farm business.

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