

Programs that Work

Using a Feasibility Study as a Management Tool: A Case Study of Oklahoma State Park Lodges

Hung-Ling Liu
I-Chun Wu
Lowell Caneday

Executive Summary

Lodges are iconic symbols for many national and state parks and are viewed as part of a recreational experience or park visit for many park visitors. Many state park systems in the United States operate cabins/cottages or lodges on their properties. Cabins and lodges, like all facilities, require extensive start-up capital investment combined with long-term operation and maintenance expense, although they generate significant revenue for park operations and often have great economic impacts to the local communities. Facing the demands of effective management and financial security, a carefully evaluated, designed, and implemented operational reform based on the characteristics and operation structure of state park system is warranted. The purpose of this study was to demonstrate the use of feasibility analysis as a management tool to determine the values, challenges, and impacts of operating lodges within Oklahoma State Parks. Lake Murray Lodge, Sequoyah Lodge, and Lakeview Lodge in the Oklahoma state park system were selected for investigation. The results showed that the selected lodges are located in rural, economically challenging areas with adequate access to these facilities through interstate, federal, and state highways. As for marketing analysis, the majority

Hung-Ling (Stella) Liu is an assistant professor in the Department of Health and Nutritional Sciences at South Dakota State University.

I-Chun (Nicky) Wu is an assistant professor in the Department of Health and Human Performance at Middle Tennessee State University.

Lowell Caneday is a Regents Professor of Leisure Studies at Oklahoma State University.

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Please send correspondence to Stella Liu, stella.liu@sdstate.edu

of cabin and lodge guests self-identify as individuals with family and friends. Due to the geographic locations of the study subjects, more than one-half of the Lake Murray and Lakeview lodge guests have been out-of-state visitors, mostly from Texas, while two-thirds of the Sequoyah Lodge guests were in-state visitors. The financial analysis in the feasibility study indicated that the revenue performance of the Oklahoma state park lodges was slightly lower than the national average for publicly operated lodges according to data from the National Association of State Park Directors, whereas the lodges clearly contribute in creating job opportunities, improving personal income, and generating added value to the local community. In a state in which lodges were constructed and financed through state appropriations, lodge-generated revenue was close to, but not yet fully covering operational costs. It is undeniable that the lodges in the parks were perceived as true public goods, the most equitable approach, and traditional services of state government of great importance to the citizenry. Three suggestions of applying a feasibility study in practice resulted from this project: (1) finding the most effective and efficient way to conduct a feasibility study, (2) importance of established professional relationships, (3) following the general structural and crafting details for different study subjects, and (4) focusing on collaborative team work.

Keywords

Feasibility study, Lake Murray Lodge, Lakeview Lodge, lodge operation, management tool, Oklahoma State Parks, Oklahoma Tourism and Recreation Department, Sequoyah Lodge state parks

The history of building public lodges in park settings is more than 100 years old in the United States, having originated in the National Park Service (NPS) properties. Many of these lodges become iconic symbols of the park and part of recreational experiences for park visitors. Many states across the nation, followed a similar development pattern, built a state park system, and constructed lodging facilities within state parks. These public lodging facilities quickly became a popular choice among overnight state park visitors (Hollenhorst, Olson, & Fortney, 1992). Between 1990 and 1999, the number of public lodge rooms increased by 7.6%, while the overnight stays increased by 11.7% (McLean, Hurd, Beggs, & Chavez, 2000). Based on the 2011 Annual Information Exchange (AIX) of the National Association of State Park Directors (2012), 90% of state park systems in the United States operate cabins/cottages, and 60% manage lodges.

From a financial perspective, cabins and lodges are the most significant resources for generating revenue since their price-for-service-rendered is normally higher than that for other facilities (i.e., campground, boat ramp, and trails) (Bowman & Eagles, 2004; Walls, 2013). Compared to other types of state park users, lodge guests spend more and have greater economic impact to the local region (Bowman & Eagles, 2004; Eagles, 2002; Stynes, Prost, Chang, & Sun, 2000). Nevertheless, these highly developed infrastructures on public properties require extensive start-up capital investment and long-term ongoing operation and maintenance expense. Lodge operation under a state park system usually requires public funding or subsidy by general tax dollars for their development, management, and maintenance (Eagles, 2014). Efficiency in planning,

effectiveness in operations, and economy in government are demanded, placing park and recreation professionals under pressure in use of public funds (Van Slyke & Hammonds, 2003).

Oklahoma State Parks started building and operating lodges in the middle of the 20th century, utilizing a variety of financing options including revenue bonds and state appropriations. These lodges in the state parks not only provide visitors an alternative overnight choice other than campgrounds or cabins, but also draw people to visit parks staying in a lodge in an environment with spectacular natural scenery and cultural treasures. However, these lodges are now somewhat dated and have encountered challenges of declining visitation, high maintenance, and utility costs, and limited capacity for current demands and expectations of visitors. The discussion as to how a park system should operate lodges under its scope of responsibility has been an ongoing debate. People who support operating lodges within the state park system tend to see parks as public goods; goods from which all people in the society would benefit to some degree and goods that are available to all (Eagles, 2014). On the other hand, people who oppose lodge operations in state parks tend to believe lodges are private goods, only benefiting those who use the facilities. As a result, several state park systems have actively conducted studies in lodge operation for greater efficiency and for roles related to operating, managing, and marketing (Van Slyke & Hammonds, 2003; Washington State Park, 2012). A carefully evaluated, designed, and implemented operational reform based on the characteristics and the operation structure of the individual state park system was suggested.

To overcome the adversities in operating and managing these lodges in the Oklahoma state park system, various options have been discussed, including sale of the lodges to private entities, contracting operations of the lodges to private management companies, cooperative agreements with local economic development authorities, or reconstruction and renovation by the state government (Caneday, Chang, Jordan, Bradley, & Hassell, 2011a, 2011b & 2011c). However, before the management agency implements any proposed option, it is important to study the risks and returns associated with the operational changes through systematic and scientific approaches (McLean et al., 2000). A thorough study that provides background, financing, and marketing analysis regarding the operation and management of these lodges is desperately needed.

A feasibility study is such a focused study in which many key pieces and information about a project are assembled into one overall analysis (Brockhouse & Wadsworth, 2010; Crossley, Jamieson, & Brayley, 2011). It is a valuable and practical decision-making tool for governmental authorities and private companies to determine whether the economic, legal, political, and market environments favor a new project for development or support the continuation of current operations (Swanson, Rasmussen, Arnold, & Wayne, 2005). The role of a feasibility analysis varies between private and public sectors. For private entities, such as commercial recreation enterprises or hotels, feasibility studies provide evidence of economic viability, since financial profitability is the essential focus (Angelo & Vladimir, 2010; Mill, 2007). For others, such as public sector or nonprofit organizations, the purpose of conducting a feasibility study is not only to determine whether a project can be implemented at the designated site under the current or predicted economic climate, but also, more importantly, to justify whether the project or the facility is appropriate in the service quality and quantity

that meets citizens' needs (Swanson et al., 2005). A feasibility analysis is therefore commonly conducted within a public facility as a routine to evaluate changes related to operational improvements, expanding existing services, and facility remodeling or renovation (Brockhouse & Wadsworth, 2010; Cox, 2010). It is worthy to note that the style and content of a feasibility study varies based on the needs of facilities or projects.

Purpose of Study

This study aimed to provide a pragmatic information and data analysis document, a feasibility study, for the state park supervisory agency, Oklahoma Tourism and Recreation Department (OTRD), as a decision-making tool regarding possible change of lodge operations in the state park system. The study demonstrated the process and details of conducting a feasibility study and its utilization when public sectors encounter managerial adversity and are in need of making strategic decisions. To assist Oklahoma State Parks in considering alternative development opportunities for lodges, this study adapted recent feasibility studies related to lodging management and followed a structure containing three aspects: general background information, market analysis, and financial analysis (Crossley, et al., 2011; Gee, 2010; Swanson et al., 2005), to determine the suitability of managing lodges in the Oklahoma state park system.

Methods

Research Timeline and Subjects

From July 1, 2011 to May 2012, two full-time faculty and five part-time research assistants reviewed financial documents and internal reports, interviewed key personnel operating state park lodges, conducted surveys of lodge guests, and prepared and provided a final report. Three state park-operated lodges—Lake Murray Lodge, Sequoyah Lodge, and Lakeview Lodge—were selected as subjects because of potential needs for capital improvement and possible changes in operation.

Lake Murray Lodge is located in Lake Murray State Park in south central Oklahoma adjacent to the Interstate 35 corridor between Dallas-Fort Worth and Oklahoma City. This park is composed of 12,496 acres of land and water with a lodge, a golf course, marina, campgrounds, and other facilities. At the time of the study, Lake Murray Lodge included 52 rooms and 56 cabins, offering a full-service restaurant and two meeting rooms for special events. Sequoyah Lodge is located in Sequoyah State Park, situated among the forested hills of east central Oklahoma on the shores of Fort Gibson Lake. Sequoyah Lodge is a two-story building with 101 guest rooms and nine meeting rooms, including a large ballroom to accommodate meetings or convention gatherings. Lakeview Lodge is a part of the Beavers Bend State Park operation. This state park, 4,300 acres in size, is located in the southeastern corner of Oklahoma, approximately 35 miles from the Texas border and 25 miles from the Arkansas border. Lakeview Lodge is a 40-room guest accommodation without food services or meeting rooms.

Study Structure and Data Analysis

The feasibility analysis included three major sections: general information, market analysis, and financial analysis. The process employed a multi-method approach for data collection encompassing online surveys, Census data analysis, archival documents and records, and internal and unpublished data from OTRD to ensure assessment accuracy (Table 1).

Table 1*Study Structure and Data Analysis of Lodges in Oklahoma State Parks*

Structure	Research Concepts	Data Source	Data Analysis
General Information	Overview of properties	OTRD published and internal reports	Summary
	Purpose and significance		
Market Analysis	Geographic location	2010 Census data	Descriptive analysis
	History of development		
	Local demographic and socioeconomic features	Published reports	Descriptive and comparative analysis
	Industry profile		
	Regional lodge overview		
Current market	OTRD internal data	Photography, field notes and evaluation	
Market segmentation	On-site visits		
Geographic profile			
Financial Analysis	Comparative properties	AIX reports and OTRD internal records	Descriptive and comparative analysis
	Selected properties		
	Financial report	Online survey of lodge and cabin guests	Money Generation Model – version 2 (MGM2)
	Occupancy		
	Expense and revenue		
	ADR		
	RevPAR		
Economic impact			
Direct sales			
Jobs supported			
Personal income			
Value-added			

First, the research team reviewed the *general information* of the three representative state parks with lodges, including an overview of the property, local demographic and socioeconomic features, and current management strategies. During the overview of the property process, purpose and significance of each property were assessed using the Visitor Experience and Resource Protection model (VERP; Hof & Lime, 1997). Information related to the geographic location and the history of development was obtained from published resource management plans (RMPs) and OTRD internal reports. The demographic and socioeconomic features of each county of location were reported using 2010 Census data to illustrate the social and economic environment in the immediate support counties where the state parks are located.

The second component of the feasibility study is the market analysis, which was used to define the market size and characteristics for each lodging facility (Angelo & Vladimir, 2010; Mill, 2007). The regional lodging market with the focus on the industrial profile was examined. Current market segments, lodge visitation, and competitive markets were also analyzed. Published reports and online materials were reviewed to define the regional market, including private and public service providers, resort facilities, and other recreation opportunities. A market segmentation analysis was applied to define target markets for each lodge using several classification methodologies. Competitive analysis, a prevalent component in a feasibility study, provides the sponsoring agency a broader picture of comparison to competitors with similar characteristics and features or with the best practice in the service (Cox, 2010; Crossley et al., 2011; Liang, 2005). For lodges in the Oklahoma state park system, the research team identified possible

competitive properties in Oklahoma and the surrounding states and emphasized lodges offering similar services and accommodations as those at the subject properties. Nine features were investigated for comparative purposes: (1) location in a state park, (2) location on a lake, (3) other lodging options on site (i.e., cabins), (4) on-site food service (i.e., restaurant), (5) meeting or conference facilities, (6) number of rooms, (7) distance from an urban center, (8) pricing and rate structure, and (9) other significant factors. Other materials about the identified properties, such as photographs, field notes from on-site visits, communications with managers, and information from properties' websites, were used to increase the understanding of the competitive business in lodge operation.

The final component of this feasibility study is financial analysis. The AIX reports and OTRD internal fiscal records were utilized to address the current financial atmosphere of each property. For each lodge, room occupancy, expense and revenue, average daily room rate (ADR), and revenue per available room (RevPAR) were reviewed and compared to provide financial profile of lodge operation. An acknowledged limitation in this study was reliance on internal state records of operational costs, commodity expense, staffing patterns, and other elements of day-to-day operations. Additionally, a survey of recent lodge and cabin guests at each property was conducted to help gather the information needed for estimating economic impacts to the local community. Key information in the survey included visitor spending for lodging, food and beverage, transportation, recreation, and other expenses on their most recent trip to the lodge and respective park and in the local community. The Money Generation Model-Version 2 (MGM2; Stynes et al., 2000) was employed to produce a quantifiable measurement of park economic benefits. The MGM2 provided indications regarding direct sales, jobs supported, personal income, and value-added to the surrounding communities.

Results

General Information of Lodges in Oklahoma State Parks

The iconic significance of lodges in Oklahoma state park system has been acknowledged and documented in Resource Management Plans (RMP) for Lake Murray State Park, Beavers Bend State Park, and Sequoyah State Park. These RMPs provide a thorough overview for the lodges in each property and can be found at <https://geog.okstate.edu/resources/rmpgis>. It is noted that within the purpose statements for these state parks, lodges are clearly identified as a valuable development, as an integral component in providing park visitors with memorable recreation experiences, as an economic stimulus benefiting the state of Oklahoma, and as important lodging amenities for resort-like overnight accommodations (Caneday et al., 2011a, 2011b, & 2011c). Due to the differing geographical locations among these lodges, the accessibility to and proximity of population varies for each lodge. Although the areas surrounding the lodges are rural, visitors still have adequate access to the parks through interstate, federal, or state highways (Kincannon & Liu, 2013). The counties in which each lodge is located serve as destination attractions for visitors drawn from more distant metropolitan areas and from across state lines.

Lake Murray Lodge is located in Carter and Love County near the Oklahoma-Texas border. The two counties comprise a rural area with 41.3 persons per square mile. Ardmore is the most populated city in the area with the population of 24,283

according to the 2010 census. This two-county region shows a higher percentage of American Indians in the population (9.4%) with higher average household income (\$38,435) and more individuals below the poverty level (15.8%). This indicates a smaller percentage of “middle class” in the population. The population in the area has achieved lesser educational attainment than is true across Oklahoma, but has a higher level of employment.

Lakeview Lodge is located in McCurtain County in southeastern Oklahoma. It is a rural, agricultural-dependent area with 18 persons per square mile. This county has yielded limited employment opportunities for its 33,151 residents as of 2010. The population is more racially diverse but less educated in formal measures than is true for the general state population and is well below the income levels (Median household income: \$24,162). At the same time, the population shows a higher percentage of persons with one or more disabilities than is true across the state.

Sequoyah Lodge is located in Cherokee County, adjacent to Wagoner County, within a 90-minute drive from Tulsa. Cherokee County comprises a rural and agricultural area with 58.3 persons per square mile, while Wagoner County is much more densely populated at 113.3 persons per square mile. The major city in the region is Tahlequah, the capital of the Cherokee Nation, with 17.1 % of the population identified as American Indians. The residents in this two-county region show higher average household income (\$45,128) and moderate education level (21.2% have completed a baccalaureate degree or higher), with an unemployment rate of 7.2%.

Market Analysis of Lodges in Oklahoma State Parks

It is essential as part of a feasibility study to understand the industry profile. According to the American Hotel and Lodging Association (AHLA, 2014), the lodging industry has grossed \$41.0 billion in pre-tax profits in 2013, an increase of 10.2% over 2012. The revenue of 2013 lodging and hotel business is \$163 billion, an increase of 5.4% from 2012, with 52,887 hotel properties and 4,926,543 guestrooms. A typical leisure traveler is with another adult (54%), age 35-54 (43%), and earning an average annual household income of \$96,000. These guests usually travel by auto-vehicle (82%), make reservations (94%), and pay \$123 in average per room night. Fifty percent of these leisure travelers stay one night, 26% spend two nights, and 24% spend three or more nights. In 2013, the industry-wide occupancy rate was 62.2% with 41% business travelers and 59% leisure travelers. In the past ten years, the average occupancy rate was 60% with a steady increase of the average daily room rates ranging from \$82.68 to \$110.35 (AHLA, 2014).

To study the current market of state park lodges, lodge guest data from the Oklahoma lodges online booking system were analyzed. The results showed that state lodges rely mostly upon customers classified as the Social, Military, Education, Religious, and Family (SMERF) market segment, an efficient classification for determining price and identifying market segmentation in the lodging/hotel industry (Feiertag, 2003). More than 65% of Lake Murray Lodge, Lakeview Lodge, and Sequoyah Lodge guests identify themselves as travelers with a small group of two to five people, while others classified themselves as traveling for large group gathering or events, such as family reunion (9%), association (8%), corporate (7%), and nonprofit organization (4.3%). The remaining categories comprise a very small portion of the market share and vary from property to property.

Using home zip codes from reservation data, points of origin for lodge guests and the current market were mapped. Out-of-state visitors were generally from the surrounding states, such as Texas, Kansas, Missouri, Arkansas, and Louisiana. In most cases, travel to each of the lodges required two to three hours' drive time. The state of Texas, in particular, and larger population base in east Texas is the point of origin for most of the out-of-state visitors in all three lodges. Approximately 60% of Sequoyah Lodge guests originated from locations across Oklahoma, while less than 40% of Lakeview Lodge and Lake Murray Lodge guests were in-state visitors. More specifically, the market for Sequoyah Lodge is concentrated on the two largest metropolitan areas in Oklahoma: the Tulsa metro-area and the Oklahoma City metro-area. The market for Lake Murray Lodge is focused on the Dallas-Fort Worth metropolitan area extending northward to Denton and Gainesville, Texas, while the secondary market is in the Oklahoma City metro area, followed by a local market of Ardmore, 9 miles north of the park. For Lakeview Lodge, the Dallas-Fort Worth area is also the primary market, and Oklahoma City and Tulsa were identified as the secondary and tertiary markets. Figure 1 shows the points of origin for guests at Lake Murray Lodge, Lakeview Lodge, and Sequoyah Lodge.

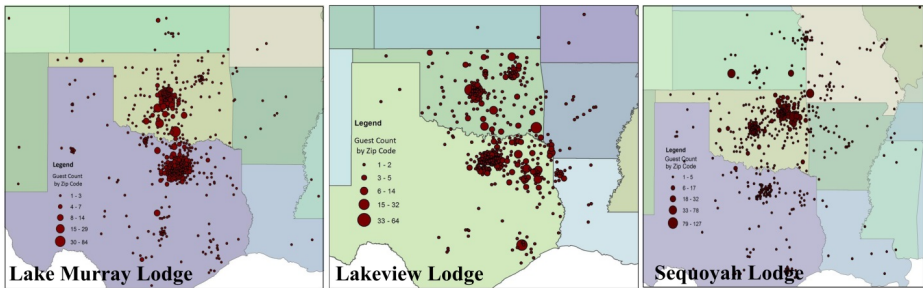


Figure 1. Points of Origin for Guests at Lake Murray, Lakeview, and Sequoyah Lodge

A further analysis of the demographic characteristics showed that most of the lodging guests from northeast Texas were especially younger than the market in Oklahoma, revealing a trend toward an aging market within Oklahoma. In general, both states showed an increasing racial and ethnic diversity over the past decade and a greater educational advancement among the populations even in a recessionary period.

Ten properties with similar operational characteristics were selected from states of Oklahoma, Texas, Arkansas, and Tennessee as competitive properties for the three subject lodges in Oklahoma state park system (see Table 2.) Among them, seven lodges were operated under state park systems and three properties were in the private sector. In general, the identification of true competitors for the three state lodges is difficult when different lodges offer experiences that are quite different from that at the Oklahoma state park lodges. Highly focused and specialized accommodations with upscale markets, like Gaylor Texan and Great Wolf Lodge, have been successful. Among those lodges operated under state park systems, Tennessee state park lodges revealed the presence of a sustained market to cover operational expense to a greater

Table 2
Comparative Properties for Oklahoma State Park Lodges

	State Park	On a lake	Other lodging	Food service	Meeting facilities	Alcohol service	No. of rooms	Distance to urban area	Pricing comparison
Inn at Pickwick Landing, TN	Yes	Yes	Cabins	Yes	Yes	No	119	Memphis (100 miles)	Similar
Inn at Henry Horton State Park Inn, TN	Yes	Yes	Yes	Yes	Yes	No	69	Nashville (40 miles)	Similar
Queen Wilhelmina Lodge, AR	Yes	No	No	Yes	Yes	No	38	Fort Smith (60 miles)	Lower
DeGray Lodge, AK	Yes	Yes	Yes	Yes	Yes	No	94	Little Rock (65 miles)	Similar
Quartz Mountain Lodge, OK	Yes	Yes	Yes	Yes	Yes	Yes	118	Lawton (50 miles)	Similar
Roman Nose Lodge, OK	Yes	Yes	Yes	Yes	Yes	No	22	Oklahoma City (50 miles)	Similar
Lantana Lodge, TX	Yes	Yes	No	Yes	Yes	No	30	Denton (50 miles)	Similar
Tanglewood, TX	No	Yes	No	Yes	Yes	Yes	120	Dallas (55 miles)	Higher
Great Wolf Lodge, TX	No	No	No	Yes	Yes	Yes	N/A	In Dallas metro	Higher
Gaylord's Texan, TX	No	Yes	No	Yes	Yes	Yes	127	In Dallas metro	Higher

extent than other properties. Properties in Arkansas, Texas, and other public lodges in Oklahoma require general funding to cover the shortage between operating expense and park-generated revenue.

Financial Analysis of Lodges in Oklahoma State Parks

Financial analysis of three state park lodges included the financial report of lodge operation and the economic impact analysis. Key indicators of lodge operation including lodge occupancy, expenses and revenue, ADR (average daily revenue), and RevPAR (revenue per available room) were reviewed and compared to illustrate the financial atmosphere. The MGM2 model was applied to assess the economic impact brought by lodge guests. The economic effects were reflected by direct sales, jobs supported, increased personal income, and the value-added to the local economy.

Occupancy rate is an important index for understanding a lodge's operation and is usually expressed as a percentage. Occupancy rate is calculated by dividing the number of room nights occupied by the number of room nights available (Goeldner & Ritchie, 2006). In general, the annual occupancy rates between 2007 and 2011 in three lodges ranged from 37.8 to 43.7%, which was lower than the national average (Table 3). At Lake Murray Lodge, the average occupancy rate declined from 46% to 32% from 2007 to 2011. Lakeview Lodge at Beavers Bend had the highest occupancy rate among the three lodges, generally between 41% and 48% occupancy between 2007 and 2011.

Table 3

Key Revenue Statistics for Each Lodge

Lodge	Occupancy	ADR	RevPAR
Lake Murray Lodge	37.8%	\$106.30	\$46.70
Sequoyah Lodge	34.1%	\$107.90	\$33.10
Lakeview Lodge	43.7%	\$96.90	\$42.20
U.S. average	59.8%	\$102.00	\$60.40

Note: The lodge data is the average from 2007 through 2011 while the U.S. average is for 2013.

Furthermore, overall personnel and operational expense of the three lodges was roughly steady from 2007 to 2010, while the lodges' revenue showed a significant decline, especially Lake Murray Lodge. In 2010, Lake Murray Lodge failed to cover its expenses (\$2,216,178) from the revenue earned (\$1,729,825), showing a deficit of approximately \$486,000, which had expanded significantly from a \$40,000 deficit in 2007. Similarly, Sequoyah Lodge was not self-sufficient. In 2010, the gap between expense and revenue of Sequoyah Lodge was approximately \$578,000 (based on revenue of \$1,776,837 and expense of \$2,355,271), a trending growth in deficit of \$50,000 over a four-year period. On the contrary, Lakeview Lodge was able to sustain both personnel and operational expenses from its revenue. In 2010, Lakeview Lodge generated \$140,000 profit with \$613,085 in revenue and \$472,376 in total expense. However, it is worth noting that the difference between revenue and costs of Lakeview Lodge had generally declined from \$228,000 to \$140,000 in 2007–2010. Additionally, among these three subject lodges, the lodge with the largest accommodation capacity, Sequoyah Lodge, generated the highest amount of revenue, approximately two million dollars per year along with almost \$500,000 deficit between 2007 and 2010. On the other hand, Lakeview Lodge is a relatively smaller lodge with 40 rooms; it sustained a higher annual occupancy rate (43.7% of average annual occupancy) and its revenue has covered the total expenses

(Table 3).

ADR and RevPAR are two other indicators particularly important in the lodging business. These measures show how well Sequoyah Lodge, Lake Murray Lodge, and Lakeview Lodge operate and represent the sources of revenue at the respective property. ADR is calculated by dividing the total room revenue by the number of rooms sold within a given interval of time, while RevPAR is calculated by dividing the total room revenue by the number of available rooms within a given interval of time (Goeldner & Ritchie, 2006). These lodges were below 50% occupancy on an annualized basis and below \$50 RevPAR every year during the five-year study period. The ADR at Lake Murray Lodge and Sequoyah Lodge exceeded \$100 per day each year, placing them above the national average. Lakeview Lodge was slightly below this ADR, reflecting the lack of other revenue streams beyond room rate. The RevPAR for three lodges are also below national averages. The steady decline of RevPAR corresponds to the decreasing occupancy rate. Table 3 illustrates the annual occupancy rate, ADR, and RevPAR for each of the properties for the years of 2007 to 2011. Data for these calculations originated from OTRD's internal financial reports. The U.S. average data for each index was based on the AHLA (2014).

According to the guest records in the lodge reservation system, Sequoyah Lodge received the largest number of lodge guest-nights at 37,772 annually from 2007 to 2011, while Lakeview Lodge and Lake Murray Lodge received 13,840 and 13,040 guest-nights respectively. While Lakeview Lodge is presently showing revenue exceeding operating expenses at its current ADR, Sequoyah Lodge and Lake Murray Lodge need to increase occupancy rates while sustaining their current average ADR. In the case of Sequoyah Lodge, an increase of about 15% occupancy (5,605 room nights at \$107.93 ADR) is necessary to generate adequate revenue. This could be achieved during the shoulder seasons and winter months with an average increase of 935 room nights monthly between October and April. Summer months are already at maximum. In the case of Lake Murray Lodge, an increase of 27% or 595 room nights per month between October and April would generate revenue covering operating expenses.

Based on the guest spending survey, guests at Lakeview Lodge spent \$148 USD per visit per guest-night, Sequoyah Lodge guests spent \$144 USD, while guests at Lake Murray Lodge spent the least with \$110 USD on average. It is worth noting that all of the properties also brought "new" money from out-of-state guests.

The economic impact survey with MGM2 model showed that each of the properties has a positive economic impact on the surrounding areas extending to the economy of Oklahoma (Table 4). This significant economic impact not only reflected on the total direct sales, it also yielded jobs, improved personal income, and generated added-value to the local economy. In general, each of the following statement summaries economic impacts of each lodge facility at the park and region:

1. Lake Murray Lodge guests directly spent \$1,433,200 in total at the park and in the local economy in Carter and Love County. They also contributed an economic effect of \$1,507,000, supported 29 jobs, generated \$566,000 in personal income, and increased \$900,000 value-added for the region.
2. Sequoyah Lodge guests directly spent \$5,440,700 in total at the park and in the local economy in Sequoyah, Wagoner, and Muskogee counties. They contributed an economic effect of \$6,434,000, supported 126 jobs,

generated \$2,542,000 in personal income, and increased \$4,073,000 value-added for the region.

3. Lakeview Lodge guests directly spent \$2,054,300 in total at the park and in the local economy in McCurtain. They contributed an economic effect of \$2,180,000, supported 43 jobs, generated \$831,000 in personal income, and increased \$1,304,000 value-added for the region.

Table 4

Economic Impact of Oklahoma State Park Lodges

	Lake Murray Lodge	Sequoyah Lodge	Lakeview Lodge
Total spent	\$1,433,200	\$5,440,700	\$2,054,300
Direct sales	\$1,507,000	\$6,434,000	\$2,180,000
Jobs supported	29	126	43
Personal income	\$566,000	\$2,542,000	\$831,000
Value added	\$900,000	\$4,073,000	\$1,304,000

Discussion

The purpose of this study was to demonstrate the use of feasibility analysis as a management tool to determine the values, challenges, and impacts of operating lodges within a state park system. As a public service provider, a state park system in this case, the aim of using feasibility study is to not only routinely evaluate performance in financial operation but also to assist in planning capital investment, renovation and policy changes in order to make the most effective and efficient decision on resources allocation (Brockhouse & Wadsworth, 2010; Swanson et al., 2005). The results of the project provided insight into current lodge operation in the Oklahoma state park system and the performance of a public service by using a managerial tool commonly applying in private development.

First, this study clearly showed that lodge operations are important and feasible within Oklahoma State Parks, even though they may not be self-sufficient in business. The first decade of the 21st century has produced economic cycles that have dramatically affected public services. These cycles were experienced in Oklahoma as well. The total budget of Oklahoma State Parks decreased from \$44 million in fiscal 2001 to \$29 million in fiscal 2011, a 34% reduction, due to budget deficits statewide, reduced tax revenues, and changing political values. In 2011, across the system of state parks in Oklahoma, 52% of funding to offset operating expenditures was generated on-site through state parks' services and amenities (i.e., lodges, restaurant, golf courses, campgrounds, and similar operations) and 38% of funding for operations was appropriated from the general fund in the state of Oklahoma. Among these park-generated revenue sources, lodges and cabins generated more than \$8.6 million in the system, which contributed approximately 41% of total park-generated revenue during fiscal 2011 (Chien et al., 2013). Although it is difficult to separate all cost of operations for lodges from other park operating expenses, lodges are less than 20% of state park operation costs across the system. Evidently, low occupancy rate in each Oklahoma state park lodge is what needed to be improved in order to sustain feasible lodge operation. Partnering with non-profit voluntary groups, local communities, or private sectors to support lodge

operations or close the lodge during off-season are possible solutions to reduce the cost and maintain the state park role as a public service (Eagles, 2001; Hamin, 2001).

Beyond the scope of this feasibility study, multiple studies have shown strong public support for overnight accommodations in Oklahoma state parks to provide low-cost lodging options that permit recreational opportunities, enjoyable experiences and lifelong memories for residents and out-of-state guests (Manning & More, 2002). Especially for Lake Murray Lodge and Lakeview Lodge, the primary clientele are out-of-state visitors who bring “new money” from other states to Oklahoma rural communities as important economic engines (Dilsaver, 2009; Machlis & Field, 2000). These lodge facilities provide jobs in the local economies, improve personal income in those settings, and add value through indirect expenditure by visitors, as indicated by the financial analysis in the feasibility study. Frequently, businesses in the surrounding communities rely on park visitors and lodge guests to sustain their private sector operations (McCool, Moisey, & Nickerson, 2001). Similar to the NPS management model, the lodges and the parks were perceived as true public goods, the most equitable approach, and traditional services of state government of great importance to the citizenry (Dilsaver, 2009; Eagles, 2009).

Third, these state parks have been designated and established by OTRD at specific locations to protect and conserve natural resources. These parks also provide public access to significant natural, historic, and cultural resources, enhancing recreation opportunities for visitors. As such, these parks become the key attractions for tourism. Providing lodges within these parks attracts a segment of the population that would be under-served in park settings without the additional lodging amenities.

Practical Implications

Feasibility of operations of state park lodges is well-established with practicality, workability, and suitability for a state park system. Operation of such lodges for several decades supports the decisions of doing something and doing it successfully (Angelo & Vladimir, 2012; Crossley et al., 2011; Swanson et al., 2005). However, practicality and political acceptability rely upon other arguments. Therefore, it is important to continuously apply scientific and systematic approaches to research and document related information for the state park authority to communicate and negotiate with the public and state government budgetary units in supporting operation and funding resource changes to sustain the system in a long-term. In contrast to a true for-profit organization, such as a privately owned hotel, using a feasibility study as a managerial tool for state park lodges achieves several goals. The feasibility study for a governmental agency not only assesses its financial and operational performance but also assists to justify whether facilities or services are appropriate in quality and quantity to serve the people and community for a greater good.

This feasibility study was conducted by faculty and students at a land-grant university for the state park agency. Conducting this study revealed several practical implications for the park and recreation profession:

(1) Finding the most effective and efficient way to conduct a feasibility study:

Some feasibility studies are conducted by a third party (i.e., educational institution, consulting firm, or private company) and some are conducted within the agencies and organizations by their own personnel (Gee, 2010). Having the third party conduct the feasibility study offered the potential to achieve more objective and unbiased

recommendations. However, conducting such a study by internal staff could be a more economical approach although findings may be questioned by outside groups. Exploring various options for conducting feasibility studies and thinking through pros and cons of each option are essential.

(2) Importance of established professional relationships: For this feasibility study, a long-standing relationship between the funding state park agency and a land-grant university allowed for completion of the study below common market prices. The mutual benefits to the university permitted important professional experiences for students assisting in the project, valuable scholarship for the faculty members, and educational materials to be shared in lectures and laboratories for multiple courses. This type of project provides the opportunity to achieve three crucial goals in a university: teaching, research, and service.

(3) Following the general structural and crafting details for different study subjects: Feasibility studies are designed in various ways to meet specific criteria; therefore, following the three fundamentals in general, financial, and market aspects of state park operation should include enough comprehensive information for park managers, landscape designers, and government authorities to understand the current operation and make effective decisions for further development or desired changes (Swanson et al., 2005). Detailed design and research items in a study are developed for collecting meaningful and valuable data based on the agency's needs and availability of information, timeframe, and/or budget.

(4) Focusing on collaborative team work: Whether agencies decide to contract out to the third party or to do the study in-house, the key element of conducting a feasibility study is to have a collaborative team including individuals and experts from multiple disciplines with profound knowledge and credentials in the study area for development of a comprehensive, unbiased, and objective study and recommendations (Gee, 2010). In the case of contracting out a study, as in this case, open communication and mutual trust between the agency and the research team is also vital to have a collaborative relationship.

In summary, this feasibility study conducted for these lodges in the Oklahoma state park system aided in several major decisions. For example, this feasibility study included recommendations for renovation of lodge properties after the state park reviewed the study in 2012. As a result, the Sequoyah Lodge (formerly Western Hills Lodge), a 50-year-old structure, had received "face-lifts." This feasibility study provided the impetus for complete renovation, renaming, and newly marketing efforts in 2014 for meeting expectations of 21st century guests. Lake Murray Lodge required even more significant attention leading to demolition of the old property and reconstruction of contemporary, lakefront cottages in 2017. It is evident that the feasibility study served as an important tool in assisting the public agency in making critical managerial decisions. Additionally, this feasibility study led to a pricing study for all services provided by Oklahoma State Parks (Chien, Caneday, Liu, Palacios, & Soltani, 2013; McLean et al., 2000). The declining ADR and RevPAR raised questions about market trends and price-for-services in public parks. Further study related to pricing was required and implemented by the Commission following this feasibility study.

In a broader use of this feasibility study, the study demonstrated that recent financial difficulties related to governmental budgets have accentuated the rationale used to support these subsidized operations, especially for high demand facilities

(Davis, 1963; Swanson et al., 2005). Using comparison analysis is helpful to identify “best practices” among its most similar competition (Crossley et al., 2011). Oklahoma State Parks utilized private and public operations as comparative and competitive providers of services. As a result, the implications of best management practices with application to business in the lodges within state parks have been explored and applied to state services. Therefore, the rationale for supporting these subsidized operations has often included the economic stimulus that state lodges within state parks provide. In Oklahoma, subsidized lodge operations have also served a populist, public good value by providing lower-cost recreation experiences. For these three lodges in Oklahoma, the economic impact in spending, jobs created, increased income levels, and other measures far exceed the subsidy that is required to keep the lodges open.

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