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Generating Revenue at Airports in the Southeastern Coastal Region of North Carolina

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Walden University

College of Management and Technology

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John D. Strong

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Walden University
2018

Abstract

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by

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MBA, Embry-Riddle Aeronautical University, 2013

MS, Embry-Riddle Aeronautical University, 2010

BS, Park University, 2003

Doctoral Study Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Business Administration

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Abstract

Airports contribute about 5% of the gross domestic product and employ over 7 million people in the United States. The purpose of this qualitative multiple-case study was to explore the strategies that airport managers need to increase nonaeronautical revenue. A generic strategy does not exist to assist airport operators in generating operating income. Aeronautical revenue does not always provide sufficient funding for airport operations and existing research does not consistently provide effective strategies for all airports to generate revenue. The sample for this qualitative multiple case study consisted of 3 small commercial airport managers in the southeastern North Carolina coastal region. The conceptual framework for this study was built upon general systems theory. The data were collected using semistructured interviews and review of company documents. Transcript review and member checking were used to strengthen credibility and trustworthiness. Through methodological triangulation of the data sources, 3 emergent themes were uncovered during a qualitative data analysis: types of nonaeronautical sources of revenue, strategies for measurement of success, and size and location of the airport. The findings from this study may contribute to social change by providing insight into strategies that contribute to sustainability at small airports. Existing and aspiring small airport managers may apply the findings to contribute to the success of the communities in which their airports reside and the local economies in which they operate.

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Section 1: Foundation of the Study

Volatility in the airline industry makes it difficult to rely exclusively on aeronautical sources of revenue (Everett, 2014). A one-size-fits-all strategy does not exist to assist airport managers in developing flexible strategies to generate income to offset volatility in the airline industry (Kramer, Landau, Letwin, & Moroney, 2015). This qualitative multiple case study explored the strategies that airport managers use to generate nonaeronautical revenue in the Southeastern Coastal Region of North Carolina.

Background of the Problem

Airports are a gateway to a large network linking communities together (Transportation Research Board, 2015). In 2013, airports in the United States produced goods and services valued at \$1.6 trillion, contributed \$768 billion toward the national gross domestic product (GDP), and employed 7.6 million people, paying them \$453 billion (Economic Development Research Group Inc. et al., 2015). Airports generate revenue from aeronautical and nonaeronautical sources (Carlisle, 2015). The airline industry is unpredictable; competition, fuel prices, world events, and weather all affect an airline's ability to generate income (Wang, 2013). When airline income is reduced available less aeronautical income is available to airports, creating an increased need for nonaeronautical sources of revenue (Carlisle, 2015). Existing research does not consistently model the approach taken by airport management to generate nonaeronautical sources of revenue (Zhang & Czerny, 2012).

Problem Statement

Nonaeronautical revenue offsets the financial risk associated with airline industry volatility (Carlisle, 2015). Commercial airports use nonaeronautical sources to generate between 35% and 40% of their revenues (Kramer et al., 2015). The general business problem is that failure to leverage nonaeronautical revenue-generating initiatives can negatively impact airport business operations. The specific business problem is that some airport managers lack strategies to generate nonaeronautical sources of revenue.

Purpose Statement

The purpose of this qualitative multiple case study was to explore the strategies that airport managers use to generate nonaeronautical sources of revenue. The targeted population consisted of airport managers at three airports located in the Southeastern North Carolina Coastal Region who had generated revenue from nonaeronautical sources. The data from this study may contribute to social change by increasing the success of existing and aspiring airports, which would contribute to economic growth as well as the prosperity of airport employees' families and the communities within which airports operate.

Nature of the Study

There are three common research methods: (a) qualitative, (b) quantitative, and (c) mixed-method (Williams, 2007). Researchers use qualitative research to create understanding of society through experiences and perspectives on human behavior, answering *what*, *how*, or *why* questions regarding events (Oun & Bach, 2014). When conducting quantitative research, researchers compare and measure variables to

determine the relationships and differences between them (McCusker & Gunaydin, 2015). The mixed method approach combines both qualitative and quantitative research to answer complex research questions (Venkatesh, Brown, & Bala, 2013). Because my study did not require an examination of the relationships or differences among variables, quantitative or mixed method approaches would not have been appropriate. The qualitative methodology was most appropriate for this study because I sought to explore and explain what occurred through the views of the selected participants.

Qualitative research includes the following main designs: (a) phenomenology, (b) ethnography, and (c) case study (Kruth, 2014). Using the phenomenological design, a researcher focuses on lived experiences (Salmona, Kaczynsk, & Smith, 2015). Using the ethnographic design, a researcher describes or interprets culture (Cutcliffe & Harder, 2012). There were no lived experiences or culture to study, so the selection of these designs would not have been appropriate. The case study design is advantageous when conducting studies in which *what*, *how*, or *why* questions focus on contemporary events where the researcher has little control (Yin, 2014). In a case study, the researcher explores contemporary events by making inquiries through observation and interviews. I selected a qualitative multiple case study design to explore a specific set of airport managers in the Southeastern North Carolina Coastal Region to develop an understanding of the strategies that airport managers use to generate nonaeronautical revenue.

Research Question

What strategies do airport managers in the Southeastern North Carolina Coastal Region use to generate nonaeronautical revenue?

Interview Questions

1. What strategies do you use to generate nonaeronautical revenue?
2. How did you develop the strategies you use to generate nonaeronautical revenue?
3. How did you address the challenges to implementing your strategies for generating nonaeronautical revenue?
4. How do you assess the effectiveness of your strategies for generating nonaeronautical revenue?
5. What strategies for revenue generation are unique to the location and size of your airport?
6. What else would you like to share about generating nonaeronautical revenue at airports?

Conceptual Framework

In the 1930s, Ludwig von Bertalanffy introduced the concept of systems theory. Bertalanffy (1972) described the effects of the external environment on an organization or system, and the reaction of organizational leaders to specific and general influences from the environment. Adams, Hester, Bradley, Meyers, and Keating (2014) described systems theory as a bedrock of universally accepted principles for understanding how systems operate and behave. Salmona et al. (2015) explained that in qualitative research, systems theory functions as a tool for examining relationships between system parts and identifying unique attributes that contribute to system behavior. Airport managers face unique challenges; consequently, systems theory applied to this study because airport

managers must incorporate various processes and components when generating nonaeronautical revenues.

Assumptions, Limitations, and Delimitations

Assumptions and limitations are factors that are out of the researcher's control. Assumptions are facts that a researcher cannot prove but knows to be true. Potential weaknesses of my study were limitations. Delimitations were under my control and provided boundaries for the study.

Assumptions

O'Leary (2014) stated that researchers need to understand how assumptions impact a study. An assumption is a fact that is believed to be true without proof (O'Leary, 2014). The first assumption of this study was that a sufficient number of airport managers in the Southeastern North Carolina Coastal Region would participate. It was also assumed that the participants would answer the interview questions honestly and without bias. Further, it was assumed that the interview questions and obtained documents would provide enough data to answer the central research question. Finally, I assumed that participants would provide valid data.

Limitations

Marshall and Rossman (2016) stated that a researcher specifies limitations to show weaknesses in a study, allowing the reader to develop an understanding of the applicability of the study. In this qualitative multiple case study, the primary limitation was the sample size. The geographic location of the Southeastern North Carolina Coastal

Region was also a limitation. The final limitation was airport managers who had successfully generated nonaeronautical revenue.

Delimitations

Yin (2014) described the setting of boundaries or delimitations to determine the scope of a study. The geographical location and type of airport delimited the study. Participants were airport managers from airports in the Southeastern North Carolina Coastal Region who had successfully implemented strategies for nonaeronautical revenue.

Significance of the Study

As discussed by Lennon (2016), airports contribute to economic stability in North Carolina. Through diversification, airport operators can continue to operate without relying on one source of revenue (Everett, 2014). A one-size-fits-all approach does not exist to assist airport managers in developing flexible strategies to generate income to offset volatility in the air transportation industry (Kramer et al., 2015). This study may be significant because a deeper understanding of strategies to generate revenue at airports in the Southeastern North Carolina Coastal Region could increase the success of existing and aspiring airports, thereby contributing to economic growth and increasing the prosperity of airport employees and their families as well as surrounding communities.

Contribution to Business Practice

North Carolina airport managers employ over 123,000 workers, generating \$4 billion in related labor income annually (Lennon, 2016). North Carolina airports generate \$910 million in tax revenue for state and local communities annually (Lennon, 2016).

The implications of this study for business practice include the potential to augment funding for airport operations using nonaeronautical revenue sources (Lennon, 2016).

Implications for Social Change

This study's implications for positive social change include the potential to provide strategies for airport managers in the Southeastern North Carolina Coastal Region for generating sources of nonaeronautical revenue. Businesses in North Carolina rely on airports as links to national and international markets. Revenue generated by access to markets outside the state supports employment (Lennon, 2016). Employment generates economic sustainability and growth through the purchase of goods and services within the community (Kramer et al., 2015). With a clear understanding of how to generate nonaeronautical revenue, airport managers can reduce exposure to risk and failure and thereby continue to serve their community.

A Review of the Professional and Academic Literature

The purpose of this professional and academic literature review is to summarize, compare, and contrast sources that relate to the research topic. A literature review provides a clear picture of a research topic, identifying literature that contributes to the research. The literature review process ensures avoidance of unintentional duplication, allowing the researcher to contribute to the existing literature. Reviewing literature assists in the identification of research questions (Baumeister, 2012).

For the review of professional and academic literature for this research study, I consulted 60 articles, 85% of which were peer reviewed and published after 2012. The review is organized into 11 main subject categories: (a) conceptual framework, (b)

systems theory, (c) air transportation, (d) airports, (e) airport stakeholders, (f) airport and airline relationship, (g) economic impact, (h) factors affecting airport performance, (i) strategy, (j) innovation, (k) airport social responsibility, and (l) strategies for generating airport revenue. The *airports* category is further divided into (a) types and sizes of airports, (b) North Carolina airports, and (c) airport revenue. The *airport revenue* category is further divided into aeronautical and nonaeronautical revenue. The *strategies for generating nonaeronautical revenue* category is further divided into traditional and nontraditional strategies.

The strategy for searching for literature for this study involved searching business and management databases within the Walden University Online Library. I used the Business Source Complete database frequently. In addition to Business Source Complete, I used the following databases: (a) ScienceDirect; (b) ProQuest; (c) government databases, including those of the Federal Aviation Administration (FAA) and the North Carolina Department of Transportation (NCDOT); (d) Google Scholar; and (e) SAGE Premier. Information was gathered using the following keywords: *airport revenue, economic impact of airports, revenue generation, airline industry, financing airport operations, the business of airports, airport categories, grant assurance regulation, airport privatization, general aviation, commercial aviation, and strategy.*

In 2013, airports in the United States produced goods and services valued at \$1.6 trillion, contributed \$768 billion toward the national GDP, and employed 7.6 million people earning \$453 billion (Economic Development Research Group et al., 2015). Zhang and Czerny (2012) discussed the importance of nonaeronautical revenue and the

increase in nonaeronautical revenue generation in airports around the world. The purpose of this qualitative multiple-case study was to explore strategies that airport managers need to generate nonaeronautical revenue in the Southeastern North Carolina Coastal Region.

Conceptual Framework

Effective research thinking follows a linear path from the topic decision to problem statement development, followed by development of research methods, data collection, data analysis, and presentation of findings. A problem statement provides a foundation for a research study. Employing research design thinking helps in aligning the research method to the problem (Salmona et al., 2015). Applying research theory is vital to ensuring high-quality qualitative research. Theory should align with the focus of the study, directing inquiry through a theoretical window. Theory should be intertwined throughout the research methodology to provide a foundation for decisions made by the researcher. To ensure credible, high-quality research, qualitative researchers should employ a qualitative theoretical approach. Researchers should select a theoretical approach that provides the tools needed to derive meaning from the data.

The general systems theory approach breaks the parts of a system down to observe the relationship between them. This approach allows the researcher to discover unique characteristics of the system (Salmona et al., 2015). General systems theory was selected as the conceptual framework for this study to focus on strategies used by airport managers to generate nonaeronautical revenue. Salmona et al. (2015) described the use of systems theory in qualitative research as a tool to examine relationships between system

parts and to identify unique attributes that contribute to system behavior. Systems theory aligned well with this study because airport managers must incorporate different processes and components when generating nonaeronautical revenues. Another framework considered for this study was strategic thinking. Mintzberg (1994) described strategic thinking as a creative and innovative way to generate new ideas. Because this study focused on successful strategies implemented by airport managers in the Southeastern North Carolina Coastal Region rather than on how to create new strategies, the strategic thinking framework would not have been appropriate.

Systems theory. In the 1930s, Ludwig von Bertalanffy (1972) developed a theory to explain the relationship between the parts and processes within an organization. Bertalanffy based his assumptions on the Aristotelian concept that the whole is greater than its parts. Bertalanffy believed that to understand an organization or organism, it is necessary to understand its parts and their relationship. Bertalanffy's theory became the basis for general systems theory. General systems theory suggests that different parts of a system work together toward a common goal (Bertalanffy, 1972). Systems theory provides a lens into how systems operate across multiple disciplines. Systems theory allows researchers to take a set of propositions and link them to established premises, providing an understanding of the system (Adams et al., 2014).

Systems theory characteristics. Mangal (2013) outlined the four characteristics of a system: (a) resilience, (b) self-organization, (c) hierarchy, and (d) efficiency. A resilient system recovers from setbacks caused by internal and external forces (Mangal, 2013). Carlisle (2015) described terrorism and aging equipment as external and internal

forces that have a negative effect on airport operations. Because airport managers are unable to predict when or how these forces will impact airport operations, resilience has become a required element of airport management (Carlisle, 2015). Systems use resilience to recover and operate in a changing environment (Mangal, 2013). Resilience influences the formation of airport business models, enabling airport management to adapt to negative forces. Resilience involves an understanding of how the parts of a system fit together and the development of flexible strategies for revenue generation to overcome negative forces (Carlisle, 2015).

Self-organization is how a system manages its different parts. Aeronautical revenue does not cover airport operating costs. Airport managers must manage all parts of the airport, focusing on differentiation and innovation to generate nonaeronautical revenue to meet operating costs (Everett, 2014). Airport leaders must identify what makes their airport unique and capitalize on that differentiation (Everett, 2014).

A system has a hierarchy to maintain order. A systems hierarchy is aligned by rank, authority, or power. Airport operators usually have a government service attitude. This singular focus can cause airport operators to miss the importance of understanding the finance and business side of an airport (Everett, 2014). An efficient system uses a few resources to reach its goals (Mangal, 2013). Airports are fixed entities without the ability to change quickly, making it easy to plan for infrastructure development but difficult to respond to market changes (Wei & Grubestic, 2015).

Application of systems theory. The foundation of systems theory is the study of the parts of a system to gain an understanding of the whole system. Systems theory

focuses on the whole system rather than the behavior of the individual parts (Bertalanffy, 1972). Mangal (2013) used systems theory to complete a quantitative study predicting response to new functions provided by social media services. Mangal's quantitative study used systems theory to explain social networks as a system through the exploration of system characteristics to predict the preferences of users. In my study, I examined successful strategies for generating nonaeronautical revenue as a means to predict successful airport business operations to offset airline volatility. Gandy (2015) studied the profitability of small business owners in Denver, Colorado through the exploration of the elements of a system. Gandy discussed the unpredictable challenges faced by small business owners and how systems theory demonstrated how business owners fit together different processes and parts to start and sustain business operations. This was significant to my study because airport operators face unpredictable challenges caused by airline volatility and must fit together different processes and parts to generate nonaeronautical revenue to sustain airport operations.

Air Transportation

Cheunge and Gunes (2012) defined the U.S. air transportation network as a group of airports that support the movement of people and cargo by air carriers throughout the nation. Consumers, airlines, and airports and other forms of transportation interact within air transportation markets (O'Connor & Fuellhart, 2016). Market demand controls growth within air transportation, influencing the number of air carriers and airports in the United States (Cheung & Gunes, 2012). Travelers on the U.S. air transportation network will pass through an average of two airports before ending a trip (Cheung & Gunes, 2012).

Business travelers use the air transportation network to conduct business operations benefiting the economy (Economic Development Research Group et al., 2015). More efficient airport connections provide organizations with a larger base to obtain materials, adding value and access to new skills and ideas. Improved airport connections also increase revenue potential and allow for increased returns on investment (Economic Development Research Group et al., 2015). For an air transportation network to be successful, the network must be able to withstand network threats. Weather and terrorism are the two greatest threats to the air transportation network in the United States (Cheung & Gunes, 2012).

Airports

An *airport*, as defined in the Airport and Airway Development Act of 1970, is an area used for aircraft to land and take off. Airports connect areas of the United States with each other and with other nations, providing access to a large pool of consumers and suppliers. An airport is usually owned by the city or county government that it serves (Economic Development Research Group et al., 2015). Airports facilitate investment across the globe, giving organizations the opportunity to take advantage of economies of scale and increasing competition (Economic Development Research Group et al., 2015). The FAA lists just over 3,300 airports as part of the National Plan of Integrated Airport Systems (NPIAS). About 500 of these airports provide commercial service, competing for approximately 743 million airline customers (Everett, 2014).

Types and sizes of airports. The Federal Aviation Act of 1958 created two airport categories—commercial service and general aviation. Airports are further divided

into small, medium, and large categories (Federal Aviation Act, 1958). *Commercial service airports*, as designated in the Airport and Airway Development Act of 1970, are publicly owned and provide service to at least 2,500 passengers each year. As specified in the same law, *general aviation (GA) airports* provide service to private pilots and aviation businesses. Both commercial service and general aviation airports can also be *cargo service airports* (Airport and Airway Development Act, 1970). Commercial service airports have multiple categories: (a) hub, (b) no hub, (c) primary, and (d) nonprimary (Airport and Airway Development Act, 1970). Commercial airports can be in multiple categories at the same time. A *primary airport* has more than 10,000 enplanements each year (Airport and Airway Development Act, 1970). *Nonprimary airports* have between 2,500 and 10,000 enplanements each year (Airport and Airway Development Act, 1970). *Hub airports* are broken down into the smaller categories of large hub, medium hub, and small hub (Airport and Airway Development Act, 1970). In areas where the population is shifting from urban to more rural communities, the importance of a large airport may decline as the importance of a small airport increases (O'Connor & Fuellhart, 2016).

North Carolina airports. The NCDOT Division of Aviation supports the public airport system within the state. There are 72 public airports in the North Carolina public airport system (Lennon, 2016). Ten of these airports are commercial service airports, supporting over 28 million enplanements and 1.3 billion pounds of air cargo annually (Lennon, 2016). The remaining 62 airports still play a critical role for the state of North

Carolina in supporting (a) remote communities, (b) emergency response, and (c) military training (Lennon, 2016).

Airport revenue. Financial support from government sources is becoming difficult to obtain; airports must find alternate sources to compensate for this lost revenue (Choo, 2014). Airport managers obtain revenue from aeronautical and nonaeronautical sources (Graham, 2013). Aeronautical sources include (a) landing fees, (b) charges for air traffic control services, (c) aircraft parking, (d) passenger charges, (e) cargo charges, and (f) charges for aircraft handling. Nonaeronautical revenue includes (a) rent, (b) utility charges, (c) concessions, (d) airport shops, (e) interest, and (f) real estate (Heyes, 2014). Airport managers need to look for new business models designed to capitalize on nonaeronautical revenue sources. Traditional nonaeronautical revenue sources include (a) newsstands, (b) duty-free shops, (c) food, and (d) advertising (Heyes, 2014).

Aeronautical revenue. Airports charge airlines for aircraft movements and passengers boarded (Lin, Choo, & Oum, 2013). Airports also obtain fees for the spaces used by airlines and for the cargo stored and transported by airlines and air cargo companies (Lin et al., 2013). These activities are considered aeronautical sources of revenue (Lin et al., 2013). How airports assess fees differs between airports. An airport and an airline usually enter into a use agreement that outlines what the airport will provide to the airline and how much the airline will pay for these services. Typically, landing fees are determined by (a) flight origin, (b) aircraft engine type, and (c) aircraft weight (Messer, 2013). Airport managers charge higher fees for international flights and larger aircraft with larger engines (Messer, 2013). Flight origin and the number of seats

on the aircraft determine terminal fees (Messer, 2013). As with landing fees, terminal fees are higher for international flights (Messer, 2013). Larger aircraft have the potential to carry more passengers and have higher terminal fees (Messer, 2013). To confirm the number of landings at an airport, airport managers can obtain data from the airlines, air traffic control (ATC), and fixed base operators (FBO; Messer, 2013). This triangulation of data ensures a more accurate account of landings and reduces lost revenue (Messer, 2013).

The challenge for airport managers at smaller, more remote airports is finding a balance between the need to fund infrastructure change and the desire to keep aeronautical fees low as an incentive to keep airlines at the airport (Chant, 2015). Technological advances help to provide solutions to this problem. New materials, equipment, and control systems allow smaller airports to provide state-of-the-art services to passengers, with flexibility built in for future expansion or downsizing in the air transportation market (Chant, 2015). Aeronautical fees are charged by airports to recoup the costs associated with supporting airlines (Choo, 2014). Airports may lower aeronautical fees to compensate airlines that provide financial support for projects that improve the airport or for cost efficiency. Airports may also lower aeronautical fees if nonaeronautical revenue covers the revenue lost as a result of the fee reduction (Choo, 2014). Hub and international airports charge airlines higher aeronautical fees. Airports that rely on low-cost carriers (LCC) charge lower fees (Choo, 2014). The availability of alternate airports within a geographic area also affects aeronautical fees. Airports competing for airline service may charge lower fees (Choo, 2014).

Nonaeronautical revenue. Airline competition is forcing airlines to lower costs. As a result, airport operators are forced to reduce or eliminate fees to attract or keep airline service, making the airport more dependent on nonaeronautical revenue (Carlisle, 2015). Nonaeronautical revenue generated by airports ranges from 30%-70%. An airports size and location dictate the percentage of nonaeronautical revenue needed(Lin et al., 2013). Airports generate nonaeronautical revenue from (a) terminal concessions, (b) parking, and (c) real estate (Carlisle, 2015). Parking and concession revenue depends on the quantity of passengers, and real estate revenue fluctuates with the local economy. Businesses operating at an airport pay a concession fee to the airport operator. If this fee has a minimum guarantee, it can mitigate fluctuations in passenger throughput (Carlisle, 2015). The concourse area of an airport is where the airport meets passenger demands. Passengers waiting for flights are looking for merchandise, entertainment, food, and beverages (Goodpasture & Hubbell, 2016). Long-term agreements provide stability if the business is a success but make it difficult to terminate a business that is not generating revenue (Carlisle, 2015).

Airport Stakeholders

Donaldson and Preston (1995) described stakeholders as any group or individual with interest in or who will be affected by an activity. Using Donaldson and Preston's definition, airport stakeholders may include government officials and agencies, local business partners, aviation advocacy organizations, air transportation companies, and the community supported by the airport. Perboli, Ghirardi, Gobbato, and Perfetti, (2015) indicated that passengers have two roles as airport stakeholders; the customer and an

investor. Airport operators look at the number of passengers moving through an airport and develop marketing strategies to encourage passenger purchases at the airport (Perboli et al., 2015). Public officials are empowered by passengers to make decisions. These public stakeholders evaluate the airport to determine if the airport will provide a return on investment of tax dollars (Perboli et al., 2015). For these reasons, Perboli et al. (2015) described passengers as a key airport stakeholder. The concourse area of an airport is where the airport meets passenger demands. Passengers waiting for flights are looking for merchandise, entertainment, food, and beverages (Goodpasture & Hubbell, 2016). Airport operators must stay engaged with the surrounding community through marketing, business presentations, and public feedback. When these stakeholders are aware of the importance of the airport, it is easier to call on them for support (Graham, 2013). Efficient airport operators develop relationships with stakeholders based on a mutual desire to improve the airport and the airport's importance to the community (Jimenez, Claro, & Pinho de Sousa, 2014).

Airport and Airline Relationship

Airports and airlines are dependent passengers (Everett, 2014). Airports compete for airline operations in three areas (a) other airports and sources of transportation, (b) connecting traffic to large hubs, and (c) airline competition (Carlisle, 2013). Airlines operate with a low-profit-margin making them vulnerable to risks that are out of their control (Wang, 2013). These risks include terrorist attacks, financial crisis, and natural disasters. These events affect the airline industry's ability to generate revenue (Wang, 2013). Fluctuating operating costs and economic instability also make it difficult for

airlines to sustain operations. Over a decade has passed since the September 11, 2001, terrorist attacks, yet many airlines are still feeling the effects. Airlines lost billions of dollars because of these attacks (Wang, 2013). The distance between airports and the convenience of other sources of travel impact the number of passengers that use an airport (Carlisle, 2013). A large airport with more capacity allows an airline to charge less for a flight (Carlisle, 2013).

Airline competition places pressure on airports to provide quality services and efficient connections for travelers. Airlines want to operate out of airports that offer the optimum business environment while still meeting the needs of their passengers (Burger, 2015). Loss or reduction of air service at an airport can have a long-term negative economic impact on the airport and the community the airport serves (Transportation Research Board, 2015). Airline service is affected by three areas (a) cost, (b) communication, and (c) community engagement (Transportation Research Board, 2015). The cost for an airline to operate at an airport is the most significant factor influencing airline service. Airport costs include landing fees, facility rent, terminal fees, and at some airports the cost to prepare the aircraft for its next flight. Lowering these costs makes an airport more attractive to airlines (Transportation Research Board, 2015). Finding alternative revenue sources that allow airport operators to reduce or eliminate airport costs for airlines is crucial to keeping airline service (Transportation Research Board, 2015).

The characteristics of an airport should match the needs of the airline it supports. The amount of fees and the ability of the airport to support quick turnarounds are all

important to airlines. The condition of facilities, the ability to expand and the layout of the airport are all attractors for airlines operating on the hub and spoke model (Jimenez et al., 2014). The community around the airport and what it offers also helps airports attract customers. Recreation areas, large cities, amusement parks, and wildlife areas attract travelers (Jimenez et al., 2014). Airports have traditionally been in a support role for airlines, providing the infrastructure needed to support passenger movement. New airline business models are challenging the traditional hub and spoke system (D'alfonso & Nastasi, 2014). To gain a competitive advantage airlines and airports are changing their relationship. Airlines are becoming more involved in the development of airports to block the entry of new airlines into the market (D'alfonso & Nastasi, 2014). Airports are offering long-term contracts to airlines in exchange for facility development funding and lower fees and a percentage of nonaeronautical revenue to attract airlines (D'alfonso & Nastasi, 2014). A positive relationship between airports and air carriers benefits both organizations. The relationships developed by representatives of JetBlue Airline and John F. Kennedy Airport in New York and at the Boston-Logan International Airport in Massport are good examples. JetBlue helped fund infrastructure upgrades increasing passenger throughput at both airports. The airline-airport relationship in these cases allowed an airline to overcome barriers to market entry while helping airports enter new domestic and international markets (Smyth, 2013).

In response to changing aviation markets, airlines and airports are entering into nonaeronautical revenue sharing agreements. Airport managers enter these agreements to keep airline service at the airport and airline owners enter these agreements to reduce

aeronautical costs (Saraswati & Hanaoka, 2015). These agreements benefit both parties. Airports have a more stable revenue source, and airlines are in a better position to compete (Saraswati & Hanaoka, 2015).

Tensions exist between airlines and airports created by, airline owners putting pressure on airports to reduce airport charges and change practices making the airline more competitive (Bush & Starkie, 2014). Additionally, if an airline provides the majority of the service to an airport, it gives the airline the advantage in contract negotiations (Bush & Starkie, 2014). Long-term contracts can ease the tension between airports and airlines strengthening their relationship. These long-term contracts are commercial agreements that allow both the airport and the airline to address weaknesses (Bush & Starkie, 2014). Additionally, Graham (2013) discussed the importance of airport operators and the businesses that operate on an airport working together to improve revenue generation.

Economic Impact

The air transportation industry creates jobs and assists in maintaining a productive U.S. economy. Air transportation connects individuals and corporations with the world. The network associated with aviation fosters innovation creates jobs and provides economic opportunities (FAA, 2014). Airports contribute to the economy in three main areas (a) transactions on the airport, (b) international air cargo, and (c) off-airport spending from airport arrivals (Economic Development Research Group et al., 2015). In 2012, the air transportation network accounted for about 5.4% of the gross domestic product (GDP) in the United States adding \$1.5 trillion to the economy (FAA, 2014).

Airports influence the economic development of the regions they support. An airport's economic impact is dependent on the airport's capacity to move passengers and cargo. Larger airports have a greater economic impact than smaller airports (Florida et al., 2015). In 2012, airports supported the movement of over \$680 billion in goods in the United States (FAA, 2014).

The FAA contributes to the U.S. economy through investment in airports. This investment includes employee salaries, equipment purchases and repair, and aviation research (FAA, 2015). The FAA assists local economies through (a) investment in civil aviation, (b) providing job opportunities, (c) contracting local businesses, (d) airport infrastructure investment, and (e) air traffic system modernization (FAA, 2015). FAA investment stimulates state and local economies and creates jobs. In 2012, the FAA invested \$14.5 billion at the state and local level with an impact estimated at \$25 billion supporting 184,000 jobs (FAA, 2015). The Essential Air Service (EAS) provision of the Airline Deregulation Act (ADA) provides a tool for the FAA to ensure airlines continue to provide service to smaller communities by subsidizing the cost of airline service in remote areas (Ozcan, 2014). Between 1999 and 2011, communities supported by EAS increased their per capita income more than 10% over the same size communities not supported by EAS (Ozcan, 2014). A connection exists between the number of passengers traveling through an airport and economic development. An increase in airport passengers causes an increase in employment and wages (Bilotkach, 2015). Additionally, the number of nonstop flights from an airport and the addition of new destinations has a positive effect on economic development. (Bilotkach, 2015).

Airports in North Carolina provide a positive economic impact connecting national and international markets with North Carolina businesses, contributing to economic growth and generating tax revenue for the state (Lennon, 2016). State airports support the transportation of visitors into the state. These passengers spend money while they are visiting North Carolina (Lennon, 2016). State airports employed over 123,000 people providing \$4 billion labor dollars used to purchase goods and services in the communities surrounding state airports (Lennon, 2016). In 2015, North Carolina airports contributed 6% of the state's GDP, generating \$31 billion collecting \$910 million in taxes from activities generated by airports. Local communities surrounding airports also benefited from over \$10 million in property taxes from aircraft owners (Lennon, 2016).

Factors Affecting Airport Performance

Airport performance can financially impact air transportation and the businesses and communities the airport supports (Maertens, 2013). Everett (2014) identified airlines, airport service, and airport location, technology, and competition as factors affecting airport performance. Airlines choose airports based on the number of available passengers, route distance and airport efficiency (Lin et al., 2013).

LCCs are a significant change in the airline market positively impacting small to medium size airports offering a lower cost option for travelers (Chant, 2015). LCCs operate out of small and medium-size airports bringing new sources of revenue to airports and the communities they support (Chant, 2015). Three options are available when airline service is interrupted; (a) re-routing, (b) re-booking, and (c) cancellation (Maertens, 2013). A one-day interruption in service costs the airport 88% of its daily

revenue without reducing operating costs (Maertens, 2013). Between 2007 and 2012 about 24 small airports went out of business when airline service was significantly reduced (Wittman & Swelbar, 2013).

Airport employees, vehicles, infrastructure maintenance and in the case of northern airports, snow removal also impact airport performance (Lin et al., 2013). Airport operators usually have a government service attitude. Cost efficiency and effectiveness are not primary concerns (Everett, 2014). This singular focus can cause airport operators to miss the importance of understanding the finance and business side of the airport (Everett, 2014). Regulation, location, social, economic, and political factors determine airport location (Lin et al., 2013). Geographic location affects the success of airports. Rural area airports struggle to keep up enplanements and have low load factors causing airlines to leave or limit service (Wei & Grubestic, 2015). Florida, Mellander, and Holgers (2015) described population and weather as influences to airport location. Larger populations generate more demand for air transportation. Areas with mild winters are more likely to have airports (Florida et al., 2015).

Airports compete with less expensive modes of transportation and in highly populated areas with other airports (Lin et al., 2013). Consumers are willing to travel via other means to obtain an expected level of service (Everett, 2014). The existence of more than one airport in an area may impact the supply and demand relationship increasing competition (O'Connor & Fuellhart, 2016). Population, accessibility, and proximity influence airport competition. Passengers may choose airports with easier access even though another airport may be closer. The closer airports are to each other the greater

their competition (O'Connor & Fuellhart, 2016). Ticketing, security, and baggage handling all rely on technology to operate efficiently. Technical problems can affect these systems causing flight delays and cancellations. The length of delay usually determines the financial impact (Maertens, 2013).

Heyes (2014) and Carlisle (2015) also identified sustainability and economic volatility as factors affecting airport performance. Airports have a large carbon footprint making it difficult to develop sustainable processes for revenue generation. Continued pressure to protect the environment with sustainable processes will make airport operations difficult if airport operators do not look for partners in revenue generation that understand sustainable development (Heyes, 2014). The fluctuations of the global economy, terrorism, destructive weather, and viral outbreaks create economic uncertainty. Airport managers must have a resilient strategy to manage risk and take advantage of evolving economic opportunities (Carlisle, 2015).

Unpredictable events create uncertainty for airports (Kramer et al., 2015). Airport infrastructure change requires long lead times making it difficult for airport management to adapt to changes in the air transportation market quickly (Carlisle, 2013). To operate efficiently with these constraints airport manager's need to be self-sufficient and flexible (Kramer et al., 2015).

Strategy

Successful corporations focus on activities that provide value to the customer creating a climate that fosters innovation (Everett, 2014). Organizations change strategies for different reasons, including changes in leadership, gaining a competitive advantage,

or taking advantage of a change in the market (Eaton & Kilby, 2015). An often-overlooked detail in strategy change is organizational culture. An organization's culture is based on beliefs, values, and behavior. An organization's culture defines how the organization adapts to change (Eaton & Kilby, 2015). Five common strategic changes impact organizational culture (a) top-level strategic change, (b) combining with or taking over another organization, (c) organizational growth globally, (d) spin-off or start-up organizations, and (e) moving back to a traditional or beginning strategy (Eaton & Kilby, 2015). If a strategy warrants a cultural change, leaders must define the current culture and identify the future state of the culture to determine shortfalls and actions to align cultural change to strategic change (Eaton & Kilby, 2015). Cultural change requires long-term commitment and support from top-level managers and employees. The buy-in from both sides prevents frustration and the loss of quality employees. This cultural change process involves (a) communication and coordination between managers and team leaders, (b) changing human resource processes, and (c) changing the behavior and symbols ingrained in the culture (Eaton & Kilby, 2015).

Another way to develop a strategy is the practice-based view (PBV) of strategy. The PBV approach looks at activity limitation allowing strategists to see what is improving organizational performance and what is not improving performance (Bromiley & Rau, 2014). When developing a strategy through PBV, performance is dependent upon (a) specific practices, (b) practice use description, (c) practice interaction throughout the organization, and (d) competitor behavior (Bromiley & Rau, 2014). Using the PBV

approach provides an environment where specific activities create organizational value (Bromiley & Rau, 2014).

Innovation

Choudhary (2014) described innovation as a key to organizational success. Four cultural traits within an organization provide a roadmap for innovation (a) motivated employees, (b) customer focus, (c) leadership commitment, and (d) a workforce with a sense of urgency (Choudhary, 2014). Innovative organizational leaders focus on employees by providing (a) excellent compensation and benefits, (b) training, and (c) an open dialog between all employees at all levels of the organization (Choudhary, 2014). These factors create happy, effective employees that are not afraid to challenge the status quo (Choudhary, 2014). Choudhary also stated innovative organizations focus on the needs of customers. Employees of innovative organizations develop products and services that not only generate revenue but also improve the human experience by giving back to society (Euchner, 2013). Leaders in innovative organizations advocate and expect innovation. Top managers provide an innovative vision for the organization that encourages employees to take chances and makes decisions (Euchner, 2013). Choudhary (2014) discussed the fear of failure as another tool available for leaders of innovative companies. This fear gives employees a sense of urgency, motivating them to step out of their comfort zone and generate unique concepts for revenue generation (Choudhary, 2014).

Everett (2014) described diversification, differentiation, innovation, and agility as essential elements to the success of an airport. Diversification provides a way for airport

management to meet consumer needs without relying on one source of revenue. Adding nonaeronautical revenue helps with airport diversification (Everett, 2014). Airports are both similar and unique. Airport leaders must identify what makes their airport unique and capitalize on that differentiation (Everett, 2014). Innovative strategies allow airport owners to see future trends and generate new sources of revenue from these trends. Smartphones, WiFi, and other convenience services are examples of innovative revenue streams (Everett, 2014).

The ability to change processes to meet new opportunities makes an airport agile (Everett, 2014). Before social media, it was difficult for airport operators to develop relationships with passengers. Airports relied on the airlines to build these relationships with passengers (VanAuken, 2014). Social media has enabled airport operators to form relationships with passengers allowing the passenger to connect to the airport by providing feedback, enabling airport managers to make positive changes, improving the passenger experience (VanAuken, 2014). In areas with multiple airports, a positive relationship developed through social media will influence a passenger's decision on what airport to use (VanAuken, 2014). Airport social media content should include calendars, special events, achievements, and other information that develops the airport brand (VanAuken, 2014). Airports that follow the roadmap for innovation described by Choudhary (2014) have more productive employees and satisfied customers. Developing a social media strategy as outlined by VanAuken (2014) is an innovative process creating a link between the customer and airport enhancing the customer experience.

Airport Social Responsibility

Social responsibility at airports can be successful with a commitment from airport leadership. Social responsibility protects the environment and provides employment giving back to the community surrounding airports. Metcalf and Benn (2013) described organizations as complex adaptive systems operating in larger complex systems. The complexity of social responsibility creates uncertainty requiring an extraordinary leader that can identify complex problems, engage others and change behavior, thereby enabling the organization to adapt to changes in stakeholder demand (Metcalf & Benn, 2013). The attitudes of senior executives affect corporate social responsibility (CSR) practices within an organization influencing the organization's commitment to CSR and the innovation level of CSR practices (Mahenthiran, Terpstra-Tong, Terpstra, & Rachagan, 2015).

Organizational behavior and the established organizational structure can send mixed messages to employees making it difficult to follow formal rules (Gentile, Wetzel, & Wolf, 2015). Formal rules allow employees to make sustainability decisions, but a lack of management support leaves employees without the resources to complete tasks (Gentile et al., 2015). The behavior of leaders toward environmental issues predicts how they will lead subordinates in dealing with environmentally specific issues. One leadership style is not more effective than another for generating sustainability behavior within an organization (Robertson & Barling, 2013). Leaders have an indirect influence on followers when (a) they share their values, (a) motive followers to achieve what is perceived to be impossible, (c) assist followers in developing innovative ways to look at problems, and (d) create a relationship with followers (Robertson & Barling, 2013).

When airport operators accept FAA grants to fund airport infrastructure construction or improvement, they agree to specific grant assurances. These grant assurances require airport operators to conduct nondiscriminatory business practices. Airport managers can promote diverse business practices through airport contracts, discussing diverse business practices with stakeholders, removing barriers, and increasing the number of diverse business operating at an airport (Exstare Federal Services Group LLC., 2015). One of the programs used by airport operators is the small business enterprise (SBE) program. This program increases opportunities available for diverse businesses (Exstare Federal Services Group LLC., 2015). Diverse business practices at airports have a community and economic benefit Airport managers use U.S. DOT strategies for implementing business diversity (Exstare Federal Services Group LLC., 2015).

Airports continuously have capital improvement projects that provide economic opportunities to the local community (Exstare Federal Services Group LLC., 2015). When airport operators implement diverse business practices, the airport is creating goodwill through social responsibility within the community. This goodwill enhances airport management's ability to (a) motivate and retain employees, (b) improve its reputation, (c) gain new opportunities, and (d) improve supplier and customer relationships (Exstare Federal Services Group LLC., 2015).

Strategies for Generating Revenue

Airport leadership must be able to create flexible strategies that take advantage of new opportunities for revenue generation. Carlisle (2015) stated airport managers and

investors must look for new opportunities for revenue generation managing risk while taking advantage of opportunities. Managing airports require a global and social awareness that fosters airport financial performance in an ever-changing aviation market (Carlisle, 2015). Forecasting demand provides an evaluation of the changes in costs, revenue and the possible need for capital investment allowing airport managers to plan for required infrastructure changes (Carlisle, 2015). Understanding when revenue may be lower allowing managers to implement cost reduction processes and possible alternative strategies for revenue generation. Geography no longer isolates problems. The ever-changing global economy requires an airport business model that is creative and flexible (Carlisle, 2015).

Airports require a variety of revenue sources. A successful strategy for generating airport revenue includes five elements: (a) customer focus, (b) services provided by the airport, (c) real estate and natural resource development, (d) innovative financing, and (e) improving existing businesses (Kramer et al., 2015). A key element to successfully planning for future success is forecasting. A successful strategy for forecasting at airports includes; (a) current air travel demand, (b) key issues that affect forecasting air travel demand, and (c) risk management techniques (Carlisle, 2013). Kramer et al. (2015) described the use of technology and untraditional opportunities for airport operators to generate revenue. (Kramer et al., 2015). As mobile technology continues to advance it changes the way passengers interact with airlines and airports (Kramer et al., 2015). Technology provides airport leaders and business leaders with key information about passengers and what they purchase making it easier to forecast demand (Kramer et al.,

2015). To gain customer information, airport operators should develop a system to track customer characteristics. This tracking system provides the airport with information on the type of traveler business or leisure, how often they visit the airport, and what they purchase while at the airport. Customer surveys are also great tools for gaining customer information (Kramer et al., 2015). The data gathered from customers allows airports to forecast demand. Through data analysis airports can measure their performance. Checking profitability of goods or services, mystery shoppers, and customer surveys are all effective data gathering tools (Kramer et al., 2015).

Airport leadership must be able to create strategies that take advantage of the expected growth worldwide passenger demand. The Airport's Council International (ACI) reports that global passenger travel will continue to increase at about a four percent per year rate. At this rate of growth, airports will need to account for passenger capacity to double every 18 years (Burger, 2015). This increased demand for capacity forces airports in small to medium markets to find creative ways to generate revenue (Burger, 2015). Fasone, Kofler, and Scuderi, (2015) indicated that airport operators should develop strategies incorporating existing sources with new opportunities for securing revenue from passengers. The key is to increase passenger flow without overcrowding. Overcrowding decreases the ability of passengers to find comfort impacting their desire to shop at the airport (Fasone et al., 2015). Finding the correct passenger throughput allows airport operators to maximize the potential for both aeronautical and nonaeronautical revenue. Improving terminal areas and developing innovative contracts with airlines decreasing airport costs and increasing airport revenue (Fasone et al., 2015).

There is no defined business strategy template for airports. Airport operators must develop strategies that work in their geographic location or market (Brutsch, 2013). One strategy is international business ventures. These ventures have both risk and reward. Airport operators may not have the expertise needed to successfully negotiate an international business venture exposing the airport to financial risk (Brutsch, 2013). A key to the success of international business operations at airports is understanding how the current airport facility can meet the needs of international passengers (Brutsch, 2013).

An effective business model framework for airlines has three components (a) core logic, (b) configuration of value chain activities, and (c) organizational assets (Daft & Albers, 2013). Airport managers can use this framework to assess airline business models during contract negotiations. Daft and Albers (2013) stated the core logic component of an airport business model indicates how the airport connects to its environment and how the airport will generate value within this environment. The configuration of value chain activities represents how the airport's structure produces value for customers (Daft & Albers, 2013). The value chain component has three dimensions (a) inbound, (b) production, and (c) marketing. The final component is assets. Assets are the resources and capabilities of an airport that are used to create value (Daft & Albers, 2013).

Strategies for Generating Nonaeronautical Revenue

Airport managers can identify areas for improvement that reduce costs and increase revenue generation. Adler, Liebert, and Yazhensky (2013) described the pursuit of nonaeronautical revenue as a more efficient revenue generating process. Using a benchmarking process airport operators can identify areas for process improvement.

Benchmarking allows airport operators to make decisions on which processes to outsource and which to keep in-house (Adler et al., 2013). The services cut by airlines to reduce costs create opportunities for airports to generate revenue (Kramer et al., 2015). Instead of airline owners providing their ground handlers airports can provide that service at a lower cost adding a revenue stream for the airport (Kramer et al., 2015). Airport owners often own large amounts of real estate to protect runways and reduce the noise impact to the public (Kramer et al., 2015). This real estate can be used to generate revenue through traditional lease agreements. Airports can also partner with developers who will accept some of the risks for guarantees for future development. Members of the local airport authority may also enter partnerships with local business representatives to develop airport property. Airports can generate revenue through the development of natural resources on airport property (Kramer et al., 2015). In smaller markets, airport leaders are operating businesses that generate revenue on and off the airport such as janitorial services (Kramer et al., 2015). Large airports, such as Denver International and Hartsfield-Jackson Atlanta International have become self-contained cities (Kramer et al., 2015). Airport operators need a strategy to create value for passenger needs encompassing the airport's vision, purpose, and objectives for both the short and long term. A successful strategy outlines the airport brand and assists airport employees in developing relationships with business partners, consumers, and other stakeholders (Harrison, 2015).

Traditional strategies. Traditional strategies are available for airport leadership to use when attempting to generate nonaeronautical revenue Kramer et al. (2015)

described traditional nonaeronautical revenue sources for airports as concessions, parking, and rental cars. In 2013, nonaeronautical revenue accounted for between 35% and 40% of the revenue used by commercial airports to meet the cost of operation (Kramer et al., 2015). These traditional revenue areas have the potential for growth through processes evaluation to reduce costs and increase efficiency leading to more revenue (Kramer et al., 2015). Representatives of Landrum & Brown Inc. et al. (2014) described the concourse as a source of nonaeronautical revenue if the airport can meet passenger demands for goods and services. Passengers spend much of their time in the airport in the terminal area of the concourse. Conveniently located concessions provide easy access for passengers moving through the terminal to and from access gates enticing passengers to shop while they wait. A variety of products and brands including local products creates diversity and increases the likelihood of purchase (Landrum & Brown Inc; AirProjects Inc; Aerotropolis Business Concepts LLC; EnviroSell, 2014). Keeping up with current trends to ensure the correct mix of products increases opportunities for meeting customer demand. Fifty percent of concession space is food and beverage (Landrum & Brown Inc. et al., 2014). A variety of restaurants and quick food options should be available beverage (Landrum & Brown Inc. et al., 2014).

The passenger experience has multiple parts and begins before arrival at the airport. A poor experience stays with the passenger long after they leave the airport (Harrison, 2015). The goal of every airport should be to understand and meet passenger needs in a safe, sustainable, profitable way. Airports can check their performance by tracking and analyzing customer data (Harrison, 2015). Airport passengers are looking

for processes to be easy and transparent. WiFi, charging stations, TV lounges, and Sports Bars are examples of easy and transparent approaches to meeting passenger needs in a safe, sustainable, and profitable way (Harrison, 2015).

Hernandez (2014) described customer service as crucial to keeping traveler coming to an airport because travelers have multiple options including a choice of airports in some areas. Customer service has three critical tools (a) engaging, (b) listening, and (c) responding. Fostering an environment that encourages customer service starts from the top. Customer service spreads quickly when airport leaders demonstrate its importance. Happy employees are more likely to provide good customer service. Setting the example and taking care of employees are keys to ensuring quality service at an airport (Hernandez, 2014).

In today's world of instant gratification, customers can instantly provide the airport with a good or bad reputation. Twitter, Facebook, Instagram, and Pinterest are all positive and negative means of advertisement. A happy customer brings in more customers (Hernandez, 2014). Customer and employee appreciation programs are not expensive and bring in large dividends. Events that show support to veterans, flowers on Mother's Day and other free giveaways make customers happy. Happy customers return and bring friends and family (Hernandez, 2014).

Governments are creating incentives to develop renewable energy sources intended to reduce the costs associated with renewable energy and increase renewable energy use. In the United States, these incentives are generally in the form of tax credits, renewable energy certificates (RECs), net metering, and power purchase agreements

(PPAs; Barrett, 2015). Airports are a prime spot for renewable energy projects because of a large amount of available land. Airport operators can install solar farms on airport-owned land that is unavailable for traditional development. Solar farms provide airports with an additional source of income either from land leases or by selling excess power to utility companies (Barrett, 2015). Funding for solar projects is available from the FAA's Airport Improvement Program (AIP) reducing the overall cost of installation (Barrett, 2015). Belardini (2015) described retail operations as a way to generate capital at an airport. Airport management and retail operators obtain revenue from consumers. Consumers visit airports about three times a year; revenue generates when retail products match consumer behavior Technology, convenience, and experience influence consumer behavior (Belardini, 2015).

Consumers return when they have a positive experience. Access to mobile applications assists in creating that positive experience allowing consumers to store and quickly access information about airlines and airport services (Gheorghe, 2013). Google and other search engines have revolutionized how consumers access information. Having a mobile application can put the airport and the services provided within the Google search results (Gheorghe, 2013). Technology has changed the air travel experience. Smartphones and the internet have linked airlines, hotels, and travel agents together for the consumer. The use of smart technology has changed airline passenger behavior (Gheorghe, 2013). Developing an airport mobile application will allow passengers to obtain information through smart technology. Mobile applications are multifunctional and provide additional revenue for airports through advertising and the sale of passenger

upgrades (Gheorghe, 2013). Consumers make decisions about what brands to use based on social media. Airports with social media programs are poised to enhance their brand influencing passenger decisions. Social media allows airports to promote airlines and the nonaeronautical businesses operating at the airport, adding possible revenue sources (VanAuken, 2014).

Airport parking is a potential commercial business opportunity. The FAA estimated that airport parking accounted for 20% of the revenue generated at large commercial airports in the United States. The average short-term parking rate is close to \$4 per hour, and the average long-term parking rate is \$10 per day. The key to a successful airport parking operation is to treat it as a business (Keilthy, 2013). Business models and strategies should include a marketing campaign to keep passengers parking at the airport (Keilthy, 2013). Multiple parking services allow an airport to take advantage of the types of passengers that use the airport. Business travelers are willing to pay more for parking that quickly moves them in and out of the airport. Off-airport alternatives may attract leisure travelers depending on the cost difference (Carlisle, 2015).

Nontraditional strategies. Ozdemir (2015) described the public-private partnerships (PPP) as a new trend in global airport operations. PPPs transfer some of the financial risks to private investors without transferring complete control of the airport reducing the financial burden airports place on local governments (Ozdemir, 2015). Private investment increases the airport's lifespan and optimizes the use of the airport-owned property. PPPs increase airport revenue growth potential and increase returns from nonaeronautical revenue providing airports quicker access to improved technology,

improving airport efficiency reducing costs, and or increasing capacity (Ozdemir, 2015). Ozdemir listed seven areas crucial to the success of PPPs (a) the support of local government officials and politicians, (b) increased knowledge of airport operations by government officials, (c) communication amount airport stakeholders, (d) established criteria for concessionaire selection, (e) private partners should have a strong financial base and understand airport operations, (f) a fair distribution of risk, and (g) agreements backed financially.

Carlisle (2015) identified some airports that have unique ways of generating revenue. At the Dallas-Fort Worth airport, natural gas extraction generates revenue; McCarran International Airport in Las Vegas has slot machines at the airport. Airports in cities with major sports teams generate income for the sale of team gear (Carlisle, 2015). Meysmans (2013) described the need for faster service as a catalyst for the increased demand for express service. Express carriers such as FedEx contribute \$80 billion to the world economy (Meysmans, 2013). Express carriers bring both aeronautical and nonaeronautical revenue to airports. Airports operators can make their airport more attractive to express carriers with the availability of large facilities to accommodate sorting and processing. Airports must also ensure they can support the increased capacity of an express carrier operating 24 hours a day (Meysmans, 2013).

Transition

Section 1 contained the problem statement and purpose statement, as well as the nature of the study that justifies my use of the qualitative method and multiple case study design. Section 1 also includes the (a) interview questions, (b) conceptual framework, (c)

assumptions, (d) limitations, and (e) delimitations of the study. Section 1 concluded with the significance of the study and a review of the professional and academic literature. The literature review included a focus on previous literature relating to the following sections and subsections (a) systems theory, (b) air transportation (c) airports, (d) airport stakeholders (e) airport and airline relationship (f) economic impact, (g) factors affecting airport performance, (h) strategy, (i) innovation, (j) airport social responsibility, (k) strategies for generating revenue, and (l) strategies for generating nonaeronautical revenue.

Section 2 will contain (a) the business project purpose, (b) the role of the researcher, (c) the selected participants, (d) a detailed description of the research methodology and design, (e) the population and sampling, (f) ethical research, (g) data collection instruments and technique, (h) data organization technique, (i) data analysis, and (j) reliability and validity.

Section 2: The Project

Lin et al. (2013) described nonaeronautical revenue as a significant part of the revenue generated by airports. Therefore, it is paramount for airport operators to be made aware of success strategies for generating nonaeronautical revenue so that they can improve their knowledge and become better prepared to sustain airport operations. Section 2 addresses (a) the study's purpose statement, (b) my role as the researcher, (c) participants, and (d) the selected research method and design.

Purpose Statement

The purpose of this qualitative multiple case study was to explore the strategies that airport managers use to generate nonaeronautical sources of revenue. The targeted population consisted of airport managers at three airports located in the Southeastern North Carolina Coastal Region who had generated revenue from nonaeronautical sources. This study may contribute to social change by providing information that airport managers can use to increase the success of existing and aspiring airports, thereby contributing to economic growth as well as the prosperity of employees' families and the communities within which they operate.

Role of the Researcher

As discussed by Leedy and Ormrod (2013), qualitative researchers serve as the primary data collection instruments in their studies. Accordingly, I was the primary collection instrument for this qualitative study. My role as the researcher was to select an appropriate research methodology and design, recruit potential participants, and collect and analyze data. The data were gathered using open-ended, one-on-one, semistructured

face-to-face interviews, as well as by collecting documents about airport revenue from airport managers. One-on-one interviews allow interviewees to provide information on their opinions, experiences, and behaviors (Rowley, 2012). As described by Yin (2014), I collected and reviewed airport documents to add to the data collected during interviews. I am an airport manager for a military airport, and as such, I have professional relationships with airport managers throughout North Carolina. I did not, however, personally know any of the potential participants.

Hardicre (2014) described research ethics as the moral pattern that shows the way for conducting research involving human subjects. Hardicre provided the following ethical principles to guide researchers: (a) protecting the participant, (b) maintaining a high standard of research, (c) planning and performing research with ethical integrity, and (d) ensuring transparency of the whole research process. To ensure the protection of participants in my study, I followed these ethical principles. In the Belmont Report, members of the National Commission for the Protection of Human Subjects of Research (1979) established ethical principles to protect humans during research. The Belmont Report delineates three ethical principles, which I followed in my role as the researcher in this study: respect of persons, beneficence, and justice (National Commission for the Protection of Human Subjects of Research, 1979).

Researchers avoid bias by outlining data collection and analysis steps. Using a systematic approach to data collection in line with the research question ensures reliability (Salmona et al., 2015). I mitigated any bias and preconceived notions by identifying a systematic approach to data collection. Further, by adhering to an interview

protocol, I removed opportunities to inject my personal views or perspectives and mitigated bias. Rowley (2012) described the use of an interview protocol as a way to eliminate errors. I followed an established interview protocol to eliminate errors.

Participants

Yin (2014) defined a participant as someone who provides case study data. Case study researchers conduct interviews to gather evidence. I used inclusion and exclusion criteria, as discussed by Luborsky and Rubinstein (1995), to ensure that the selected participants fit inside the sample domain. To be eligible for participation in this study, participants needed to be airport managers at an airport in the Southeastern North Carolina Coastal Region who had used strategies successfully to generate nonaeronautical airport revenue. This participant base was chosen to ensure that the target population included individuals who could provide pertinent information related to the identified problem. The ability to provide pertinent information was a primary criterion for research participants, as discussed by Robinson (2014).

The process of selecting participants for a qualitative case study involving interviews includes developing a selection strategy (Robinson, 2014). I obtained potential participants' contact information from airport websites. I selected participants from these websites who met the eligibility requirements. Next, I sent an invitation to prospective participants for this multiple case study via email. The letter of invitation explained the intent of the study and included the participant consent form for the participant to review and sign electronically. I selected the first three participants who responded to my invitation.

I contacted the three participants by telephone using the interview protocol in Appendix A. I sought to schedule an interview date and time for each participant, and I advised participants that their participation was greatly appreciated. Further, I informed them that because their participation was strictly voluntary, they could withdraw from the study at any time. The participant consent form, the use of an interview protocol, and the reassurance of anonymity built trust and strengthened the working relationship between the participants and me (Rubin & Rubin, 2012).

Research Method and Design

I selected a qualitative multiple case study design to develop an understanding of the strategies that airport managers use to generate nonaeronautical revenue sources. Researchers use qualitative research to create an understanding of society through experiences and perspectives on human behavior (Oun & Bach, 2014). Case study researchers explore contemporary events by making inquiries through observation. Specifically, case study researchers observe events within their real-world context (Yin, 2014). In this study, I used data analysis to explore strategies that airport managers use to generate nonaeronautical revenue sources.

Research Method

Researchers gain empirical knowledge through observation and experimentation in a structured way to explain a phenomenon or answer questions (Oun & Bach, 2014). Effective results require researchers to follow a defined process. Research methods differ but have the same goal: to expand an idea, evaluate a thesis, or answer a question (Oun & Bach, 2014). There are three common research methods: (a) qualitative, (b) quantitative,

and (c) mixed method (Williams, 2007). Researchers using a qualitative method seek to create an understanding of society by focusing on a small number of human participants to gain in-depth insights into their perceptions and lived experiences (Oun & Bach, 2014). With the quantitative method, researchers compare and measure variables to determine how many or how much of a variable of interest exists (McCusker & Gunaydin, 2015). The mixed method approach combines both qualitative and quantitative approaches to answer complex research questions (Venkatesh et al., 2013). There were no variables to examine or compare, so quantitative or mixed method approaches were not appropriate. I selected a qualitative research method using open-ended interview questions and document review as means of gathering research data to explore strategies that airport managers use to generate nonaeronautical revenue sources in the Southeastern North Carolina Coastal Region.

Research Design

Leedy and Ormrod (2013) described research as the methodical action of gathering, evaluating, and interpreting data to gain an understanding of an event or phenomenon. This action requires a distinct plan that identifies a course of action (Leedy & Ormrod, 2013). The research design identifies how the researcher will interpret and present the information used to answer the research question (Leedy & Ormrod, 2013). I selected a qualitative multiple case study design. Qualitative research includes the following main designs: (a) phenomenology, (b) ethnography, and (c) case study (Kruth, 2014). A phenomenological design focuses on lived-experiences (Salmona et al., 2015). An ethnographic design involves describing or interpreting culture (Cutcliffe & Harder,

2012). Because I did not seek to conduct research on lived experiences or culture, phenomenology and ethnography were not appropriate designs for this study. A case study design is advantageous when a researcher is conducting a study using *where*, *how*, and *why* questions to focus on contemporary events (Yin, 2014). Case study researchers explore contemporary events, making inquiries through observation. Specifically, in a case study, researchers observe events within their real-world context (Yin, 2014). Data reach saturation when interviews and documents produce no additional information (Houghton, Casey, Shaw, & Murphy, 2013). I knew that saturation had occurred when no new evidence was present (Rubin & Rubin, 2012).

Population and Sampling

Yin (2014) discussed setting the target population and determining sample size as tasks within a qualitative case study involving interviews. The population selected for this qualitative multiple case study was airport managers from the Southeastern North Carolina Coastal Region who had successfully implemented strategies to generate nonaeronautical revenue. Using purposive sampling, I drew a sample of three airport managers from this population. Purposive sampling provides a means to ensure that the target population includes individuals who can provide pertinent information on the phenomenon of interest (Robinson, 2014). Leedy and Ormond (2013) described purposeful sampling as a way to select study participants using the researcher's judgment and established criteria. The sample size of three was justified because the participants came from each of the airports in the region. Criteria for inclusion, exclusion, or both are required when establishing a sample domain. When used together, these criteria establish

the limits or size of the sample domain (Luborsky & Rubinstein, 1995). The interviews took place at a location determined by the participants as convenient, where I conducted them in a private room with the door closed. Yin (2014) stated that interviews are easier to conduct when participants feel comfortable and can share information without distractions.

Ethical Research

I conducted this study after receiving approval from the Institutional Review Board (IRB) at Walden University (IRB Approval #0559280). Research ethics are the moral pattern that shows the way for conducting research involving human subjects (Hardicre, 2014). Ethical principles available to guide researchers include (a) protecting the participant, (b) maintaining a high standard of research, (c) planning and performing research with ethical integrity, and (d) ensuring transparency of the whole research process (Hardicre, 2014). To ensure the protection of the participants in my study, I followed these ethical principles.

The participants received an email inviting them to participate in the study. The email included a participant consent form for the participant to review and return to indicate consent. The participant consent form included a sample of the interview questions and an explanation of the interview process. The invitation also included a request for company documentation and records. I used the participant consent form to inform participants of the voluntary nature of the study and to indicate that compensation would not be provided. I informed participants of their right to withdraw from the study

at any time. The participants were provided information on how to obtain a copy of the completed study. I contacted each participant via the telephone to schedule an interview.

To protect the rights and privacy of participants, a researcher must take care at all times when gathering, storing, and analyzing data (Yin, 2014). Electronic data gathered for this study will be stored on a password-protected external hard drive for 5 years. All nondigital data will be stored in a locked cabinet drawer and will be shredded after 5 years. I ensured that participants were aware of the purpose of the study and the confidentiality measures that would be taken to protect their identities and those of their organizations. To protect the names of individuals and organizations, I referred to the participants as Participant 1 through Participant 3 and the documents as Document 1 through Document 3.

Data Collection Instruments

I was the data collection instrument for this case study. Although researchers conducting qualitative studies can use other data collection instruments, the researcher is typically the primary data collection instrument in qualitative research (Leedy & Ormrod, 2013). As the researcher, I collected data using semistructured interviews and airport documentation. Semistructured interviews allow participants to express their viewpoints and experiences (Robinson, 2014). Appendix A outlines the interview protocol. I used a case study protocol. A case study protocol ensures the reliability of the data obtained by keeping the researcher focused on the topic aides (Yin, 2014). A case study protocol consists of the following: (a) an overview of the case study, (b) an outline of data

collection procedures, (c) data collection questions, and (d) a case study report guide (Yin, 2014).

In addition to semistructured interviews, I reviewed airport documentation. Member checks enhance the reliability of qualitative research by validating the data (Yin, 2014). I conducted member checking by asking each of the participants to review my analysis. Following data analysis, I provided a summary of the emerging themes to the participants to validate my conclusions.

Data Collection Technique

The data collection techniques that I used in this study were interviewing and review of documents. I conducted face-to-face semistructured interviews, as outlined in the interview protocol (Appendix A). Semistructured interviews, as discussed by Rowley (2012), leave the interviewer with an opportunity to ask follow-on questions and allow the interviewee an opportunity to provide information on opinions, experiences, and behaviors. Additionally, Yin (2014) stated that interviews are easier to conduct when participants feel comfortable and can share information without distractions.

I scheduled a convenient time and place to meet participants and conduct interviews. I provided each participant with a copy of the participant consent form before the start of the interview. I audio recorded the interviews in a private room with only the participant present. Following the interview session, I collected airport documentation that enhanced the information gained through interviews. Airport financial information and other documents that outlined the revenue generated by the airport were collected from airport managers or downloaded from publicly accessible airport websites. The

collection and review of documents supported the data collected during interviews (Yin, 2014). The actual names of participants were not used in the study to protect individuals' identities. The participants were labeled Participant 1 through Participant 3. Following data analysis, I scheduled another meeting with each participant to conduct a member check to ensure that the data analysis captured the appropriate meaning. Credibility involves truthfulness in interpretation and presentation of data (Polit & Beck, 2013). As described by Darawsheh (2014), allowing interviewees to check the data analysis ensures credibility through participant engagement and the creation of an audit trail.

Data Organization Technique

Reliability comes from collecting data that are in line with the research question. I mitigated bias using a systematic approach to data collection (Salmona et al., 2015). I recorded the participant interviews with an audio application on my Galaxy Tab tablet. I used a different audio application on a smartphone as a backup recording device. I tested both devices before holding interview sessions. Airport documentation data were collected and labeled Document 1, 2, or 3. The collection and storage of all data met IRB requirements. By using an established interview protocol, I eliminated opportunities to inject personal bias (Rowley, 2012). I have been the only person with data access. The data have been stored on a password-protected external hard drive, where they will remain for 5 years. All nondigital data have been stored in a locked cabinet drawer and will be shredded after 5 years.

Data Analysis

I used methodical triangulation for this qualitative multiple case study. Yin (2014) indicated that triangulation occurs when the researcher uses more than one data source. As described by Yin (2014), I used two methods of data collection to provide a complete understanding of the phenomenon. Triangulation was achieved by conducting semistructured interviews using the protocol in Appendix A and the collection and review of documents to corroborate the data collected during interviews (Yin, (2014).

I used the following data analysis stages identified by Yin (2014) as a defined process for data analysis (a) data collection, (b) data grouping, (c) developing themes for data regrouping, (d) information assessment, and (e) conclusion development. I conducted a member check with each participant. Houghton et al. (2013) described member checks as a way to ensure the researcher has captured the correct meaning. Using inductive inquiry qualitative researcher's construct meaning from data to obtain a better understanding of the data. As researchers continue to analyze data, they obtain a greater understanding through observing the data from different perspectives (Salmona et al., 2015). Research data does not tell the story. The researcher obtains a meaning from the data through empirical analysis systematically interpreting the data (Salmona et al., 2015).

Once the data was confirmed accurate, I used a computer-assisted qualitative data analysis software tool, Dedoose, to assist in transcribing and analyzing the data. All data not conforming to the search criteria was removed. The data were then coded and analyzed using Dedoose. I created codes for the participants and the interview data. The

participants were coded as Participant 1 through Participant 3. Participant assignments are listed in a separate document. The airport documentation was assigned specific names Document 1, Document 2, and Document 3. I created nodes that identify coding. The data were organized into a data set, and then I became familiar with the data. The final step was to classify, code, and interpret the data (Rowley, 2012). The conceptual framework for this study is based on general systems theory. Systems theory focuses on the whole system rather than the behavior of the individual parts (Bertalanffy, 1972). I explored the strategies airport managers use as a whole to generate revenue. After revealing the profitability strategies, I compared the strategies to prior literature findings.

Reliability and Validity

Reliability and validity indicate the accuracy of research (Yin, 2014). Reliability and validity have different meanings in qualitative and quantitative research. In qualitative research, protocols provide commonality and strengthen the validity, consistency, and reliability of the research (Yin, 2014). An increase in the acceptance of qualitative research has also increased the need to ensure the quality of qualitative research (Zitomer & Goodwin, 2014). Quality research is based on evidence (Bishop & Holmes, 2013). I used a defined interview protocol (Appendix A) and the triangulation of evidence to ensure reliability and validity. Lincoln and Guba (1985) provided the commonly used criteria for ensuring an accuracy in research (a) dependability, (b) credibility, (c) transferability, and (d) confirmability.

Reliability

Consistency in collecting data ensures dependability (Polit & Beck, 2013). A clear description of data collection processes provides consistency allowing other researchers to reconstruct the study with like participants in like conditions (Leedy & Ormrod, 2013). I addressed dependability by conducting a member check with each participant, asking the participants to review my analysis to ensure I accurately captured of the meaning of the data collected. As described by Yim (2014), allowing the interviewee to check the data analysis will ensure reliability.

Validity

To ensure credibility, I used member checking to verify the data represents the viewpoints of the participants. Credibility involves the truth, interpretation, and presentation of the data (Polit & Beck, 2013). Researchers ensure credibility through participant engagement, observation method, and audit trails (Darawsheh, 2014). When the study results can be transferred to others it is transferable (Houghton et al., 2013). Transferability occurs when the reader can apply the study results to their experiences (Leedy & Ormrod, 2013). Confirmability occurs when the researcher shows that the participant views are represented in the data without bias from the researcher (Leedy & Ormrod, 2013). I used a defined interview protocol to ensure the study process can be replicated. The data reached saturation when the interviews and documents collected produce no additional information. I knew saturation had occurred when no new evidence was presented (Houghton et al., 2013).

Transition and Summary

In Section 2, I stated the purpose statement of my research study, addressed the role of the researcher, the selected participants, and detailed the research methodology and design. Next, I described the (a) population and sampling method; (b) ethical research, (c) data collection instruments, technique, and organization, and (d) data analysis. Section 2 concluded with a discussion on assuring the reliability and validity of my study. Section 3 begins with an introduction including the purpose statement and the research question. Next will be the presentation of findings. Section 3 also includes application to professional practice, implications for social change, recommendations for action, recommendations for further research, researcher reflections, and a conclusion.

Section 3: Application to Professional Practice and Implications for Change

Introduction

The purpose of this qualitative multiple case study was to explore the strategies that airport managers use to generate nonaeronautical sources of revenue. Airports contribute to economic stability in North Carolina (Lennon, 2016). A one-size-fits-all approach does not exist to assist airport managers in developing flexible strategies to generate revenue to offset volatility in the air transportation industry (Kramer et al., 2015). I conducted semistructured interviews with three airport managers from airports in the Southeastern North Carolina Coastal Region who had used successful strategies to generate nonaeronautical airport revenue. Semistructured interviews allow participants to express their viewpoints and experiences (Robinson, 2014). Methodical triangulation of the data sources can include comparison of company documents with transcribed interview data (Yin, 2014), which was the approach I used for this study. To protect the names of individuals and keep the participants' information confidential, I refer to the participants as Participant 1 through Participant 3. Documents are identified as Document 1 through Document 3. Upon reaching data saturation, the data were entered into a qualitative software analysis tool, Dedoose, to assist in transcribing and organizing the data to answer the research question. Using methodological triangulation of the interview and airport documentation data, I discovered the following emergent themes: (a) the importance of passenger need, (b) measures of success, and (c) influence of community, airport size, and location.

Presentation of the Findings

The data for this study were collected to answer the following overarching research question: What strategies do airport managers in the Southeastern North Carolina Coastal Region use to generate nonaeronautical revenue? The participants in this study were three airport managers from three airports in the Southeastern North Carolina Coastal Region. The data collected from these airport managers were analyzed using methodological triangulation, and three main themes emerged: (a) the importance of passenger need, (b) measures of success, and (c) influence of community, airport size, and location. The first emergent theme was that passenger need is the basis of nonaeronautical revenue strategies. The second emergent theme involved how airport managers measure the success of nonaeronautical revenue generation strategies. The third emergent theme was the impact of airport size, location, and community characteristics on nonaeronautical revenue generation.

The emergent themes are consistent with my review of existing literature on effective business practice. Lin et al. (2013) described nonaeronautical revenue as a significant part of the revenue generated by airports. Therefore, it is paramount for airport operators to be made aware of success strategies for generating nonaeronautical revenue so that they can improve their knowledge and become better prepared to sustain airport operations. The participant responses were consistent with information presented by Kramer et al. (2015). According to Kramer et al., a successful airport revenue-generating strategy has five elements: (a) customer focus, (b) services provided by the

airport, (c) real estate and natural resource development, (d) innovative financing, and (e) improving existing businesses.

Emergent Theme 1: Passenger Need

The first theme to emerge from the analyzed data was that passenger need is the basis for nonaeronautical revenue strategies. All of the airport managers (i.e., Participants 1, 2, and 3) mentioned passengers as their driving force when developing nonaeronautical revenue strategies. Participant 3 stated, “Passengers spend money at airports.” All three airport managers asserted that nonaeronautical revenue is a result of providing a service to passengers who use their airports. Participant 1 stated, “I provide services that passengers find valuable.” Participant 1 described airport concessions as a way to meet customer demand. He mentioned that at his airport, the news and gift shop offer uniform parts for Marines arriving for duty at the local Marine Corps base. Participant 3 mentioned that she had installed a restaurant in her airport in response to customer demand. This theme is consistent with Choudhary’s (2014) statement that innovative organizations focus on the needs of customers. Participants 1, 2, and 3 described three main areas where airports meet customer demand: (a) parking fees, (b) rental cars, and (c) concessions. Review of Documents 1, 2, and 3 confirmed the information presented by the airport managers. All three of the airport documents listed parking fees, rental cars, and concessions as three main sources of nonaeronautical income.

The passenger demand theme reinforces the information presented by representatives of Landrum and Brown Inc. et al. (2014), who described keeping up with current trends to ensure the correct mix of products, thereby increasing opportunities for

meeting customer demand. Additionally, Goodpasture and Hubbell (2016) described the concourse area of an airport as the place where the airport meets passenger demands.

Parking fees. Two of the three participants listed parking fees as their number one source of nonaeronautical revenue (Participant 1, Participant 3). Participant 3 stated that parking represented 50% of his nonaeronautical revenue. A review of airport financial information within Documents 1, 2, and 3 showed that parking was the number one source of nonaeronautical revenue for all three airports. This information is consistent with Lohman's (2016) description of parking at airports as the greatest source of nonaeronautical revenue. Participant 1 mentioned that he was looking for additional ways to take advantage of the land and personnel used in his airport's parking system. Participant 3 stated that there is a relationship between the size of the airport and the importance of parking revenue at the airport. Parking ensures the financial future of airports, covering a large portion of operating costs and improvement projects (Lohman, 2016). Keilthy (2013) offered that airport parking is a way to take advantage of a commercial business enterprise at airports.

Rental cars. All three participants described rental cars as a source of nonaeronautical revenue. A review of airport financial documents showed that rental cars were the second largest source of nonaeronautical revenue for all three airports. Keilthy (2016) described rental car operations as a retail focus for many airports seeking to generate nonaeronautical revenue. Participant 2 described rental cars as a standard source of aeronautical revenue for all airports. A business relationship exists between nonaeronautical businesses such as rental car companies and airports that ensures that

essential services are available to the airport customer (Jimenez, Claro, & Pinho de Sousa, 2014).

Concessions. Participants 1, 2, and 3 described concessions as a viable source of nonaeronautical revenue. All three airport managers discussed establishing concessions that airport visitors find valuable. The airport managers' assertions reinforced the findings of Carlisle (2015) and representatives of the U.S. Department of Transportation (2015a), who described concessions as an important revenue source where airport concession business partners offer products that provide value to passengers. Participant 1 listed a jeweler, restaurant, and news and gift business that operated at his airport. The jeweler and Participant 1 had a contract that provided the airport with a minimum revenue guarantee.

Concessions are a significant part of an airport's revenue. According to the Airports Council, International-North American (ACI-NA; 2013), in CY 2012, concessions accounted for 45% of the revenue generated at U.S. airports (ACI-NA, 2013). The ACI-NA (2013) described concessions as retailers that rent space at airports to provide a service valued by passengers.

Emergent Theme 2: Measuring Success

The second emergent theme from the analyzed data related to the importance of having a predetermined measurement for the success of nonaeronautical revenue generation strategies. Participants 1, 2, and 3 used consistent methods to measure the success of their strategies. Participants 1 and 3 discussed peer review as a method for

checking success. Participants 1, 2, and Participant 3 described generating enough revenue to cover costs as a good measure of success.

Peer review. Analysis of interview data indicated that Participants 1 and 3 listed peer review as a means to check the success of their strategies for generating nonaeronautical revenue. Participant 1 mentioned “looking at what other airports are doing and see how it compares to what is working at your airport.” He described baggage handling, aircraft servicing, and agriculture operations as examples of services implemented at other airports that he had considered providing at his airport. Another airport manager, Participant 3, attended conferences and formed networks with other airport managers. All three airport managers identified “benchmarking” as a way that they determined whether their strategies were successful. The viewpoints of all three airport managers on benchmarking reinforced the work of Alder et al. (2013), who pointed out that benchmarking at airports is a means for identifying ways to improve as well as areas of high-level performance.

Bottom line. Participant 1 said that he used the bottom line to gauge the effectiveness of nonaeronautical revenue strategies. He commented that “if it generates revenue it is successful.” This is in line with Kramer et al. (2015), who offered that airport managers often use defined metrics to measure performance and promote new ideas. Participant 2 said, “we look at the amount of revenue derived from those [revenue generating] activities, we take a percentage of gross and that’s how we measure the success of those activities.” Participant 3 indicated that he ascertained whether he was making or losing money. He also described comparing the current year's financial

performance to the previous year's financial performance as a means to measure the airport's success.

Emergent Theme 3: Airport Size, Location, and/or Community

The third emergent theme was the impact of airport size, location, and community characteristics on nonaeronautical revenue generation. The three airport managers (Participants 1, 2, and 3) indicated that their airport's location and/or community characteristics helped in developing strategies for nonaeronautical revenue. This theme is consistent with Everett's (2014) identification of airlines, airport service, technology and competition, and airport location as factors affecting airport performance.

Airport size and location. All three participants discussed the impact of size or location on revenue generation. Participant 3 stated that small airports have a different mix of aeronautical and nonaeronautical revenue sources. He also stated that reliance on parking diminishes as an airport grows in size. He stated that additional sources of revenue from nonaeronautical revenue derived from providing a service to the passengers who use his airport. Participants 2 and 3 stated that the market and size of the population adjacent to the airport influence strategic decisions. Participant 2 indicated that she was more focused on aeronautical revenue than nonaeronautical revenue because her airport size and location did not support a significant amount of airline passengers. Review of Document 2 confirmed that Airport 2 generated more aeronautical revenue than nonaeronautical revenue. Participant 3 stated that FAA restrictions, airport size, and availability of passengers all impact nonaeronautical revenue generation. The information obtained from the analyzed data is consistent with information presented by Lin et al.

(2013), who stated that an airport's size and location dictate the percentage of nonaeronautical revenue needed.

Community characteristics. One of the three participants discussed the large population of Marines who used his airport as a strategy development factor. He stated, "The airport news and the gift shop sells team products for all four NC universities." The same participant discussed supporting passengers who followed at least one of the four state university teams. He also described the large population of Marines who used his airport as an important factor in developing strategies. He said, "I am looking into opening a barber shop for Marines arriving that need a haircut." Participant 3 discussed using land owned by the airport to build a business park. He stated that his airport was located in the middle of the county and remarked that an aviation business park would be unique to the area. Airport leaders must identify what makes their airport unique and capitalize on that differentiation (Everett, 2014). Participant 1 stated that airline operating costs dictate where and when airlines operate and that airline service impacts nonaeronautical revenue. He also noted that airports in rural communities struggle to keep airline service impacting nonaeronautical revenue. These findings are consistent with the description by Jimenez et al. (2014) of the community surrounding an airport as an attractant. Recreation areas, large cities, amusement parks, and wildlife areas attract travelers (Jimenez et al., 2014).

Correlation to Conceptual Framework

The themes derived from the analyzed data are a reflection of the notion from Bertalanffy's (1972) systems theory that different parts of a system work together toward

a common goal. Salmons et al. (2015) described how the unique attributes of each source contribute to the behavior of the system. Mangal (2013) listed resilience as a characteristic of a system that allows system elements to recover and operate in a changing environment. Participants 1, 2, and 3 all developed strategies to meet customer demand, contributing to the success of the system. Analysis of the data revealed that the airport managers successfully used the different parts of the system to develop strategies for nonaeronautical revenue generation. Bertalanffy (1972) contended that to understand an organization, one must have an understanding of its parts and their relationship. For example, researchers such as Everett (2014) discussed the need for airport managers to focus on all parts of the airport to differentiate and develop innovative ideas to meet operating costs. The behaviors of the airport managers interviewed for this study align with Bertalanffy's assertion that analyzing the relationship between the different parts of a system provides insight into the operation of the whole system.

Analyzed data also revealed that airport managers understood how a customer focus impacts the behavior of the organization or system. All three emergent themes also connect to new research by Lohman (2016), who discussed continuing to evaluate an airport's parking program to ensure that it meets customer demand. This understanding of customer focus is an example of continuing to evaluate system parts to ensure that all parts continue to have a positive influence on the system. Adams et al. (2014) described systems theory as a lens into how systems operate across multiple disciplines.

The analyzed data also reflected how airport managers evaluate the success of nonaeronautical revenue strategies. Further, the data identified that airport managers are

committed to successful airport activity performance. Two of the three participants discussed the unique characteristics of their airports in terms of differentiating their airports from other airports and using their differences to create innovative ways to generate nonaeronautical revenue. Everett (2014) noted that airport managers must manage all parts of the airport, focusing on differentiation and innovation to generate nonaeronautical revenue to meet operating costs.

Mangal (2013) described efficiency as a characteristic of a system. Mangal also offered that an efficient system uses a few resources to reach its goals. Analysis of the data showed that all three participants used a few resources—parking fees, rental care fees, and concessions—to generate nonaeronautical revenue to cover operating costs. The three participants also evaluated the efficiency of their airport’s system using benchmarking and financial documents as a defined metric to measure performance. The behaviors of the airport managers interviewed for this study align with Bertalanffy’s theory that the performance of a system is related to the performance of its different parts. The themes identified from the analyzed data are examples of continuing evaluation of a system’s parts to ensure that all parts continue to have a positive influence on the system. The analyzed data on airport manager behavior are consistent with the work of Suter et al. (2013), who indicated that systems theory focuses on how each part connects to make a whole component.

Applications to Professional Practice

The findings of this study are relevant to the professional practice of business. Airport managers generate revenue from aeronautical and nonaeronautical sources

(Carlisle, 2015). The availability of revenue generated by aeronautical sources creates an increased need for nonaeronautical sources of revenue (Carlisle, 2015). The findings have the potential to aid airport managers in many ways. The findings uncovered in the study add to the existing literature on the subject. Moreover, the findings may improve business practice through the education of airport managers on successful nonaeronautical revenue generation practices. Airport managers may review the findings of the study and implement the strategies discovered through the emergent themes.

North Carolina airport managers employ over 123,000 workers, generating 4 billion dollars in annual related labor income (Lennon, 2016). North Carolina airports generated 910 million dollars in annual tax revenue for the state and local communities (Lennon, 2016). Airport managers that remain excited about the success of their airport and continue to develop successful strategies for developing nonaeronautical revenue might be successful. Airport managers who understand that the unique attributes of their airport and its size and location impact revenue generation can continue sustained operations. If airport managers understand that the most important factor in generating nonaeronautical revenue is attracting passengers, they are successful (Carlisle, 2015).

Implications for Social Change

The results of this study provide airport managers a glimpse at the current strategies used by other airport managers to generate nonaeronautical revenue. North Carolina airports generated 910 million dollars in tax revenue for the state and local communities annually (Lennon, 2016). Businesses in North Carolina rely on airports as a link to national and international markets. Revenue generated by access to markets

outside the state supports employment (Lennon, 2016). Employment generates economic sustainability and growth through the purchase of goods and services within the community (Kramer et al., 2015). The findings from this study could impact social change by contributing to the success of airports and thus contributing to the prosperity of their employees, the communities surrounding the airport, and the local economy.

Recommendations for Action

This qualitative multiple case study uncovered what strategies small airport managers in the southeastern coastal region of North Carolina use to generate nonaeronautical revenue. North Carolina airport managers employ over 123,000 workers, generating 4 billion dollars in annual related labor income (Lennon, 2016). Potential and current airport managers should pay attention to the results of this multiple case study because the findings may assist them in generating nonaeronautical revenue generations strategies. Also, I recommend that the North Carolina Airport Association pay attention to the results and share the results with potential and current airport managers. I will provide the participants with an overview of the results and findings via email. I will advise the participants that the complete doctoral research study will be published. My final recommendation is for local, state, and government agencies to pay attention to the results and findings because of the impact of airports have on the economy.

Recommendations for Further Research

In this qualitative multiple case study, the primary limitation was the sample size of participants. Recommendations for further study include a study involving a larger

sample size of participants. Also, a study based in a different geographical location, other than the Southeastern coastal region of North Carolina is recommended. Additional insights could be gained by studying general aviation airports.

Reflections

The DBA Doctoral Study process was a learning experience. I have a better understanding of how nonaeronautical revenue is generated at small airports, specifically small airports in the Southeastern coastal region of North Carolina. As the researcher, I worked to keep errors low and avoid bias. I followed the interview protocol mitigating bias and preconceived notions I may have had before conducting the interviews. My relationship with the participants was professional to mitigate personal bias. Additionally, I mitigated bias by not reacting to the responses provided by the participants during the interviews.

By interviewing and communicating with the participants of this study, I have changed my way of thinking somewhat about small airports. I was unaware of how both internal and external forces impact the development of strategies to develop nonaeronautical revenue. I was impressed by the passion the participants I interviewed had for the success of their airports.

Conclusion

The purpose of this qualitative multiple case study was to explore the strategies airport managers use to generate nonaeronautical sources of revenue in the Southeastern North Carolina Coastal Region. I collected data using methodological triangulation. Semistructured interviews with three airport managers were conducted to obtain the first

set of data. The secondary data comprised airport financial documents. I knew saturation had occurred when no new evidence was presented. When the data were coded and analyzed, three main themes emerged from the data. I described how the analysis of these themes tied back to peer-reviewed studies from the literature review on effective business practice and general systems theory. Data analysis showed participants developed strategies to meet customer demands; contributing to the success of the system. This was consistent with Lin et al. (2013), who described nonaeronautical revenue as a significant part of the revenue generated by airports, making it important for airport managers to be made aware of successful strategies for generating nonaeronautical revenue. The findings of this study were clear in describing passenger need, the community surrounding an airport, and the size and location of an airport as key elements to the success of nonaeronautical revenue generation. The findings also described how to measure the success of nonrevenue generation.

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Appendix A: Interview Protocol and Questions

1. Introduce self to the participant(s).
2. Give participant(s) a copy of consent form, go over contents, answer questions and concerns of the participant(s).
3. Turn on the recording device.
4. Introduce participant(s) with coded identification, record the date and time.
5. Begin asking interview questions.
 - What strategies do you use to generate nonaeronautical revenue?
 - How did you develop the strategies you use to generate nonaeronautical revenue?
 - How did you address the challenges to implementing your strategies for generating nonaeronautical revenue?
 - How do you assess the effectiveness of your strategies for generating nonaeronautical revenue?
 - What else would you like to share about generating nonaeronautical revenue at airports?
 - What are strategies for revenue generation unique, to the location and size of your airport?
6. Watch for non-verbal cues.
7. Ask follow-up probing questions to more in-depth information
8. End interview session and discuss member-checking with the participant(s).
9. Thank the participant(s). Verify contact numbers.

10. Schedule follow-up member checking interview.