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**KING COUNTY: A CASE STUDY MODEL FOR STRATEGIC PLANNING IN COLLIGATE AVIATION LEARNING**

William B. Rankin

**Abstract**

Case studies help students prepare for real-world problems, situations and crises by providing an approximation of various professional environments. Thus, through the examination of specific cases, students are given the opportunity to work issues through the trials, tribulations, experiences, and research findings of others. An obvious advantage to this mode of instruction is that it allows students the exposure to settings and contexts that they might not otherwise experience. One way to study airport issues is through the use of strategic planning case studies. Strategic planning is a process of developing a map or route an airport will follow which identifies what products are to be provided to which customers, where they will be provided, and at what price. Based on the vision and mission statements previously developed, strategic planning summarizes the basic operational tasks, goals, objectives, strategies, and tactics for the airport organization. In this paper, strategic planning, and more particularly a strengths, weaknesses, opportunities, and threats (SWOT) case study analysis is used to evaluate King County International Airport (KCIA). This case study is a suggested model for development of future airport case studies to be used in the collegiate aviation learning environment.

**Introduction**

Strategic planning for airports is a process of developing a map or route an airport will follow which identifies what products are to be provided to which customers, where they will be provided, and at what price. Based on the vision and mission statements, strategic planning summarizes the basic operational goals, tasks, objectives, strategies, and day-to-day tactics for the airport organization. The basic operational tasks are simply shorthand for what the airport's basic business or function is—what the airport wants to accomplish (Quilty, 1999; Pearce and Robinson, 2005). Strategic planning involves establishing a mission, vision, goals, strategies, and tactics. The mission need not be measurable, but it is something the airport employees can work toward regardless of intermediate achievements. Compared to mission, objectives imply a shorter, measurable time period with an accomplishment that can be measured in numerical terms. For example, an objective might be to achieve 90% hangar utilization within 2 years (Quilty, 1999). A strategy is a major course of action and implies a relatively longer time span than tactics. A strategy is what one is going to do and not how the airport is going to do it. A tactic, on the other hand is how the airport is going to achieve the strategy and the ultimate goal. It is a series of shorter action items that are part of the strategy. “Michael Porter, a management scholar, has identified three classes of competitive advantage strategies. The classes are known as low-cost producer, differentiation, and focus” (Quilty, 1999, p. 21).

The low-cost producer attempts to hold prices low by minimizing costs. These efforts may take the form of efficient scale of production facilities, product design, distribution channels, raw materials procurement, etc. Part of this strategy can involve selling in volume so that low profits per unit may be offset. This strategy is observed in air carriers such as Southwest™ Airlines, but it is also practiced in general aviation fuel marketing, at airports attempting to buy large amounts of chemicals or sand for winter use, and in the air cargo industry (Quilty, 1999).

Differentiation strategy involves creating a unique image of the organization’s product or service so that customers may be charged for that uniqueness. Companies that employ this strategy stress high quality, image, or technological leadership, among other possibilities.
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"Milwaukee International Airport has long stressed its airport as an alternative to Chicago's O'Hare International Airport, while many general aviation airports stress their ease of use and access to important business and commercial centers or recreation areas" (Quilty, 1999, pp. 21-22). Differentiation strategy can be viewed between Federal Express and United Parcel Service, and between United Airlines and American Airlines.

A focus strategy typically targets a segment of a larger market and specializes in a particular geographic location or customer group. The focused approach attempts to serve the targeted needs so well that competitors are left with no opening to gain market share. An example is a fixed base operator (FBO) that specializes in specialized maintenance to the point where other FBOs in the area would not find it feasible to establish such a service (Quilty, 1999; Pearce and Robinson, 2005).

The concept of competitive advantage causes airport managers to focus on meeting and anticipating the expectations of airport customers by comparing their airport’s performance to other airports or to other transportation modes. It requires an understanding of the competition’s strengths and weaknesses through and benchmark analysis. It can also be used to assess how related businesses located on the airport may respond or pursue their business activity (Quilty, 1999; Pearce and Robinson, 2005).

In addition to pursuing competitive advantage, an airport may attempt to occupy a special niche in the environment that is unique to its capabilities, or which offers an opportunity overlooked by competitors. The strategy, in this case, is to occupy the niche and then erect barriers that prevent other organizations from challenging the unique position. Airlines and airport service companies often attempt to use this strategy (Quilty, 1999; Pearce and Robinson, 2005).

Learning Objectives

The learning objectives are as follows:
1. Identify those elements of the strategic management process that precede strategic decision-making at the King County International Airport (KCIA).
2. Identify and address the products and services that exist at KCIA.
3. Identify and address the customers and markets that exist at KCIA.
4. Identify and address the competitive advantages of KCIA.
5. Identify and address what product and market emphasis KCIA should pursue.
6. Identify the strategy or strategies that KCIA should implement and pursue.

History of King County International Airport

According to King County (2004), in 1928, King County voters approved a $1 million plan to build the region's first public airport. Today, the airport is one of the busiest airports in the nation and ranks as one of the most successful public investments in Washington State. The airport was named after the founder of the Boeing Aircraft Company, William E. Boeing, and the airport helped to foster the growth of the Boeing Company throughout the 1930s. It served as the regional center for commercial and recreational aviation in the Seattle area during this era (King County Airport Division, 2002).

Just one day prior to the bombing of Pearl Harbor, the airport was taken over by the federal government due to its strategic location and its importance as a Boeing production center. During the World War II era, the airport was devoted to the production of the B-17 and the B-29 bombers, which played key roles in the European and Pacific theaters. After the war years, the airport served as the primary passenger airport in the region until the construction and completion of Sea-Tac International Airport in the early 1950s (King County Airport Division, 2002).

Today, King County International Airport (KCIA) is one of the busiest airports in the nation, serving more than 375,000 aircraft operations per year by recreational, corporate, military, and Boeing jet aircraft. The airport continues to provide limited passenger service and is the primary air cargo airport in the region. The airport is owned and operated by the King County Department of Transportation, Airport Division, and receives no general tax revenues to support its operations. The airport is the site for the final production and delivery of the Boeing 737 and 757 aircraft, and a testing center for the Boeing 777 and military AWACS program. See Appendix A for the facilities layout of KCIA (King County Airport Division, 2002).

Mission, Values, and Vision Statements

The mission, values, and vision statements of the King County International Airport are as follows:

Mission Statement

The mission of the King County International Airport is to support the economic vitality of the county, to support the national air transportation system, to encourage advanced technology, to provide safe and continuous general aviation airport services to King County businesses and residents and to serve as the gateway to the county. In fulfilling this mission, the Airport will be a good neighbor and environmental steward and will
provide quality facilities to Airport tenants and operators in an efficient, environmentally safe and fiscally prudent manner. (King County Airport Division, 2002, p.1)

Values Statement
The values of KCIA are:
1. Safety is crucial
2. Economic vitality, responsiveness to the area economy
3. Looking to the future
4. Environmentally sound
5. Collaborative in community
6. Innovative
7. National leader
8. Support state-of-the-art manufacturing (King County Airport Division, 2002, p.1)

Vision Statement
By the year 2018, the King County International Airport will be a national leader developing partnerships with the King County community, businesses, and residents to provide airport facilities and services which are environmentally and economically sound and ensure the community’s well being. Today:
1. KCIA strives to be the best airport in the country and serves its aviation customers well.
2. KCIA strives for excellent relationships with the community. There will be mutual respect between the airport and the community, even when the community does not like the impacts of airport operations.
3. KCIA strives to be an excellent County agency, highly regarded by County officials (elected and appointed) as being reliable, efficient, effective, and responsive.
4. KCIA is a great place to work. Employees are valued, recognized, trained and have a great time. (King County Airport Division, 2002, p.1)

Problem Statement
To achieve the mission, values, and vision of King County International Airport, the County must adopt a sound strategic management plan and implement specific strategies for success. What are the appropriate strategies to implement? In strategic management, one way to assess the airport business environment is through strengths, weaknesses, opportunities, and threats (SWOT) analysis.

Strengths, Weaknesses, Opportunities, and Threats Analysis
According to Pearce and Robinson (2000), SWOT is an acronym for the strengths and weaknesses of an organization and the environmental opportunities and threats that an organization faces. The analysis is based on the assumption that an effective strategy evolves from a sound fit between the organization’s internal resources and the organization’s external realities, or situation, as follows:

1. A strength is a resource advantage relative to its position or situation and the needs of the community it serves.
2. A weakness is a limitation or deficiency in one or more of the organization’s realities or situation that impedes it full potential or effectiveness.
3. An opportunity is a major favorable reality in the organization’s environment. Key trends, for example, are one source of opportunities.
4. A threat is a major unfavorable reality in an organization’s environment. Threats are impediments to the organization’s desired reality or position. (pp. 191-221)

SWOT analyses are used in many ways to aid strategy makers. One of the most common ways is to use it as a framework to guide systematic development of the organization’s resources based on the alternatives available to the organization. SWOT analyses are a framework of choice among many strategy makers because of its simplicity of sound strategy formulation – matching an organization’s opportunities and threats with its strengths and weaknesses (Pearce and Robinson, 2005).

KCIA SWOT Analysis
Review of the Airport Manager Candidate Information Materials from King County (2002) revealed the following SWOT analysis:

Strengths
1. KCIA serves a diverse set of clients, ranging from private pilots to large corporate aircraft operations, as well as government organizations, retailers, wholesalers, and a variety of other services. Boeing Aircraft Company maintains a significant production facility at the airport.
2. KCIA generates more than 10,000 jobs in the County and is responsible for $1.6 billion in sales by airport tenants. The airport supports the earning of $0.5 billion in labor income per year. Finally, $39 million in state and local taxes are generated by the airport each year.
3. With approximately 150 businesses based at KCIA, including air cargo companies, flight schools, charter operations, and helicopter operations, most business activity at KCIA is sold outside the county economy. Approximately 82% of the gross volumes of sales at the airport are represented as new money to the County economy.

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This activity would not be present without KCIA.

4. With two runways (3,710 and 10,001 feet in length) and four fixed base operators, KCIA provides all the facilities necessary to support jet and piston driven aircraft and helicopter activity. KCIA is also an FAA-designated General Aviation Reliever Airport for Sea-Tac International Airport, making the airport eligible for FAA reliever airport grant funding.

Weaknesses

1. In recent years, most of the KCIA tenants have experienced a downturn in business, which is strongly related to the national economy and the events of September 11, 2001. Activities at the Boeing production facility have also declined somewhat in the last few years.

2. Slow recovery of the local economy, increased federal security requirements, potential competition from Sea-Tac International and Paine Field airports for air cargo and aviation industrial activity, could result in inadequate landing and fuel flowage fees to support airport operations and capital investments.

3. Aircraft operations at KCIA have severe noise impacts on the community. The airspace of KCIA, Sea-Tac International, and Renton airports intersects, forcing cargo aircraft to fly lower than they would normally have to on approach to KCIA. Also, the County has no jurisdiction over aircraft once they are airborne; the FAA is responsible for the safe and efficient use of the national airspace in the region.

4. The Airport Police/Aircraft Firefighting is managed and operated by the King County Sheriff’s Department as a contract service to KCIA. In addition to these duties, it is also responsible for the Runway Safety Inspection Program, wildlife control, ramp certification training, fuel truck operations and inspections, as well as building inspections. KCIA is paying a premium for these services. Of the current $5 million annual operating budget, KCIA is paying the King County Sheriff’s Department more than $2 million annually.

5. KCIA has finite land resources. The airport has a total of 594 acres available for aeronautical development – see Appendix A.

Opportunities

1. KCIA has a strong demand for available airfield land and facilities. At the same time, lease revenues appear to be stabilizing with the Boeing Company generating $2.7 million annually. Other lease revenues indicate a modest growth while lease rates are adjusted on a three year appraisal cycle.

2. KCIA has a master plan and financial program which outlines a schedule for runway improvements, taxiway improvements, and environmental mitigation in support of aviation users, industry, and the community.

3. KCIA owns and manages 10 buildings located on airport property that generate 26% of the airports annual income. These buildings are leased primarily to state and local governmental agencies. New lease and air service opportunities exist with the remodeling of the main terminal building completed just last year (see Figure 1).

4. Taking back control over the Runway Safety Inspection Program, wildlife control, ramp certification training, fuel truck operations and inspections, as well as building inspections offers opportunities to reduce expenses (see Figure 2).
Figure 1. KCIA Annual Airport Revenue by Cost Centers (King County Airport Division, 2002).

Figure 2. KCIA Annual Expenses by Cost Centers (King County Airport Division, 2002).
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5. KCIA has instituted a noise monitoring and flight tracking system, a Part 150 Noise and Land Use Compatibility Program, and a Fly Quiet Program aimed at reducing noise in the surrounding communities. By partnering with local residents, the airport will gain the support of the local community, which offers opportunities for continued growth and development, as well as retention of existing businesses.

6. KCIA has instituted a community outreach program called Roundtable. Roundtable was set up as an advisory board to make recommendations to airport officials, the County Executive, and County Council on issues of importance about KCIA to the community.

7. Opportunity Skyway, another outreach program, supports KCIA’s efforts to foster good relations with nearby communities. It also serves Federal Aviation Administration goals to support and promote aviation education. The program is an airport based education program that uses aviation to promote academic and vocational learning while encouraging career exploration in aviation related industries. The program was initiated by King Council action in 1996 pursuant to county government policies that encourage county departments to support education and regional workforce development.

8. KCIA is also the location of a number of other business activities. Some of these are located on the west side of the airport, while others are located on the east side of the airport. They are extremely diverse in their nature. These businesses include the Museum of Flight at the southwest corner of the field. Although technically, the Museum of Flight is not an airport tenant, KCIA staff and the museum consider themselves part of the airport family. Several producer service businesses with no relationship to the airport simply rent office space through KCIA tenants. The opportunity to lease more space to these types of tenants is a possibility.

Threats

1. The single largest threat to KCIA is that Boeing is exploring possible moves to Wichita, Tulsa, St. Louis, Long Beach and overseas, and will continue doing so for the foreseeable future.

2. Any recession to the local economy continues to be a threat to KCIA.

Strategy Considerations and Recommendations

The following strategy considerations and recommendations should be considered for KCIA:

1. Complete planned capital investments in support of aviation users, industry, and community.

2. Take back control over the Runway Safety Inspection Program, wildlife control, ramp certification training, fuel truck operations, and inspections, as well as building inspections.

3. Develop an airport business plan to support initiatives and investments of KCIA.

4. Develop an airport marketing plan to support the initiatives and investments of KCIA.

5. Improve airport information sharing between KCIA, Paine, Renton, and Sea-Tac International airports.

6. Maintain participation with the business community and the Roundtable advisory board.

7. Leverage location, marketplace, and resources to achieve maximum efficiencies with regard to field capacity, the Boeing Company, industrial land and cargo development.

8. Support regional economic strategies.

9. Be a good neighbor to the surrounding communities.

10. Market KCIA as a full service general aviation airport.

11. Market KCIA as a reliever airport for Sea-Tac International Airport.

12. Market KCIA as a major air cargo facility.

Concluding Remarks

As one of the busiest general aviation and reliever airports in the country, KCIA plays a key role in the region’s vitality. Like all airports, KCIA has its strengths, weaknesses, opportunities, and threats that, if properly managed, will continue to propel economic growth in the Puget Sound region for years to come. To assist in facilitation of this case study, learner questions, a facilitation guide and suggested outcomes for this KCIA strategic planning case study model are attached as Appendix B.
William Rankin currently is the chair and associate professor of the department of aviation at the University of Central Missouri. Prior to this position he served as an assistant professor of aviation at Florida Memorial University in Miami, Florida and deputy director of aviation for the Fort Lauderdale Hollywood International Airport. Dr. Rankin has a Ph.D. in Business Administration from Northcentral University, Prescott, AZ. In addition, he is an accredited airport executive in the American Association of Airport Executives and has a Commercial Pilot and Advanced Ground Instructor License.
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Appendix A

KCIA Facilities Layout Diagram

[Diagram of KCIA facilities layout]

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Appendix B

Learner Questions, Suggested Outcomes and Facilitation Guide

Learner Questions

According to Quilty (1999), airport planners should ask the following questions in preparation of strategic management plans:

1. Questions that precede strategic decision making:
   a. What values are going to guide the airport business?
   b. How far down the road should the airport look?
   c. What assumptions about the external environment underpin the airport’s strategy (regulation, the economy, resource availability, technology, competition, and the market)?

2. Questions that address products and services:
   a. What existing and new products and services can the airport offer or not offer?
   b. What criteria can the airport use to evaluate a new product or service opportunities?

3. Questions that address customers and markets:
   a. What existing and new customer groups can the airport serve or not serve?
   b. What criteria will the airport use to evaluate a new market opportunity?

4. Questions that address competitive advantages:
   a. What factors (price and/or the various dimensions of quality) are meaningful to the airport’s customers?
   b. Which factors can represent an airport’s competitive advantage?

5. Questions that address product and market emphasis:
   a. In which of our current product or market areas should the airport place its greatest emphasis (resources and attention)?
   b. In what new product or market areas should the airport place its greatest emphasis?

6. Questions that address strategy implementation:
   a. What financial and non-financial measures can the airport use to assess the viability of the strategy?
   b. What strategy should the airport implement to ensure that departmental goals, process goals, position and people goals, organizational design and management support the mission of KCIA?

Facilitation Guide

This guide provides a suggested approach to facilitating both the content areas and the learner questions scenarios in the King County International Airport Case Study. It has been developed to be used for all modalities.

Decision-Making Facilitation Approach to Strategy Development and Implementation

A problem solving model is suggested for making key decisions to be used by strategic planners after a SWOT is performed. A suggested decision making model shown in the diagram below:
The situation provides the venue in which to identify the SWOT issues

1. Define the situation
2. Frame the correct issues
3. Define the end-state goals
4. Identify the alternative strategies
5. Evaluate the alternatives
6. Assess risks
7. Make the decision(s)
8. Implement the strategy
9. Evaluate results and take corrective actions

Figure 1. Problem solving model.

Learners need to understand that the strategic planning begins with an understanding and recognition of the systems and constituencies within which an airport operates. They should learn that a strategic plan is a disciplined effort to produce fundamental decisions and actions that shape and guide what an airport is, what an airport does, and why an airport does it (Quilty, 1999).

Among the considerations of strategic planning are the development of a vision and mission statement, organizational objectives, and strategies to carry out the objectives. Learners need to know that top airport management is responsible for formulating a vision or future course of action for the organization. Plans and objectives derived from the vision and mission statement provide a purpose and a direction to the organization. It is important that learners begin to recognize that the planning process is a continuous and not a one time event. Proper strategic planning, as it relates to overall organizational goals, involves a number of steps. Those steps involve (a) developing vision and mission statements; (b) identifying strengths, weaknesses, opportunities, and threats (SWOT); (c) developing a strategic plan and tactical and operational plans; (d) making, buying or otherwise obtaining necessary resources; (e) implementing the strategic plan; (f) and then evaluating and revising the plan as necessary or required.

Finally, learners need to understanding that having a strategy is only half of the strategic planning process. Implementing the strategy is the determinate of its success. Once strategies have been selected, decisions must be made regarding the best
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Organizational structure for implementing the strategies. Generally speaking, the simpler the airports structure the better. However, the more significant the modification, change, or expansion in the product, service, customer, or geographic area is, the more the organizational structure may need to be modified. A tactical plan can help the implementation process. Tactical plans encompass a short time span, generally one year, and are more detailed than strategic plans. A tactical plan is oriented toward the means of attaining goals, whereas a strategic plan is oriented toward the objectives and goals themselves. These points should be emphasized throughout the facilitation of this case study.

**Suggested Outcomes**

Airport planners should ask the following questions in preparation of strategic plans:

1. Questions that precede strategic decision making:
   a. What values are going to guide the airport business? The most successful strategies are those consistent with the airport culture that exists. If not, then the culture must be changed in some way to be consistent with the airport culture which exists. Organizational culture is the shared values of the organization.
   b. How far down the road should the airport look? Milestones should be evaluated on a yearly basis. Rarely are strategic plan accurate more than five years into the future. Annual or semi-annual reevaluation is recommended.
   c. What assumptions about the external environment underpin the airport's strategy (regulation, the economy, resource availability, technology, competition, and the market)? Assumptions and beliefs shape the way things are done in the organization. Environmental scanning is important element in making assumptions for future decisions.

2. Questions that address products and services:
   a. What existing and new products and services will the airport offer or not offer? Products and services can include best practices in the areas of customer service, ground transportation, facilities and maintenance, technology, etc.
   b. What criteria will the airport use to evaluate a new product or service opportunity? Studying and measuring other organizations, including those outside airports, that demonstrate world class performance is an important tool – benchmarking.

3. Questions that address customers and markets:
   a. In addition to identifying new customers, what existing and new customer groups will the airport serve or not serve? Social responsibility plays a part here. This may include charitable contributions, community service, sponsorships, etc. These actions demonstrate appreciation for the benefit an airport gains from utilizing the resources of the community and infrastructure.
   b. What criteria will the airport use to evaluate a new market opportunity? Learners should identify the criteria by choosing activities that are crucial to an airport's competitive advantage and the need to operate efficiently as possible within the constraints of its location.

4. Questions that address competitive advantages:
   a. What factors (price and/or the various dimensions of quality) are meaningful to the airport's customers? Learners should identify specific programs and practices to adopt and customize the practice, service or product to the airport. For example, many airports now require street pricing in concession management programs.
   b. Which factors will represent an airport's competitive advantage? Identify internal strengths such as location, existing tenants, capabilities, and services already provided at the airport.

5. Questions that address product and market emphasis:
   a. In which of the current product or market areas will the airport place its greatest emphasis (resources and attention)? Learners should examine, analyze, and validate the airport's SWOT and place the emphasis on what resources need the most attention.
   b. In what new product or market areas will the airport place its greatest emphasis? New products or markets could include possibilities such as establishing another industrial park, development of air cargo, or expansion of services offered the general aviation industry.

6. Questions that address strategy implementation:
a. What financial and non-financial measures will the airport use to assess the viability of the strategy? Financial ratios can be used for detecting trends in financial success; for example: (a) liquidity ratios, (b) leverage ratios, (c) activity ratios, (d) profitability (performance) ratios. Non-financial measures may include such measures as aircraft operations, based aircraft, noise complaints, etc.

b. What strategy should the airport implement to ensure that departmental goals, process goals, organizational design and management support the mission of KCIA? Given the SWOT, learners should recommend the appropriate strategies for KCIA.