

SCENARIOS ANALYSIS OF THE GEOTOURISM BUSINESS MODEL

IN KING SALMON, ALASKA

By

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A Project Submitted in Partial Fulfillment of the Requirements

for the Degree of

MASTER OF SCIENCE

in

Science Management

University of Alaska Anchorage

December 2018

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Table of Contents

	Page
Title Page	1
Table of Contents	3
Table of Figures	4
List of Tables	5
Abstract	6
Introduction.....	7
Background.....	9
Approach.....	10
Analysis Competitor:	12
Denali National Park Analysis.....	13
Results and Analysis	19
Result	23
Geotourism Business Model in King Salmon:.....	24
Model Base Case Outcomes	29
King Salmon Sensitivity Analysis	29
Conclusion	30
References.....	31

Table of Figures

	Page
Figure 1: Railroad Link – Anchorage to Denali National Park (Round Trip)	14
Figure 2: Information Prior to Visit – Denali National Park Statistics.....	14
Figure 3: Analysis # 1 Total Cash Flow (a).....	19
Figure 4: Analysis # 1 Denali Loan vs. Cumulative Cash Flow (b).....	19
Figure 5: Analysis # 2 Total Cash Flow	20
Figure 6: Analysis # 2 Denali Loan vs. Cumulative Cash Flow (b).....	21
Figure 7: Analysis # 3 Total Cash Flow (a).....	21
Figure 8: Analysis # 3 Denali Loan vs. Cumulative Cash Flow (b).....	21
Figure 9: Analysis # 4 Total Cash Flow (a).....	22
Figure 10: Analysis # 4 Denali Loan vs. Cumulative Cash Flow(b)	22
Figure 11: Location of King Salmon on Alaska Map.....	24
Figure 12: King Salmon Analysis: Total Cash Flow(a).....	28
Figure 13: King Salmon Analysis: Loan Payment (b).....	29
Figure 14: King Salmon Variable Sensitivity.....	30

List of Tables

	Page
Table 1: Prices from Denali Park Village	15
Table 2: Prices From Grayline Alaska.....	15
Table 3: Hotel Prices and Name	16
Table 4: Denali Park Village Activities	16
Table 5: Tour Bus Pick Up and Drop Off Activities	17
Table 6: Tour Package # 3 - 3 Days / 2 Nights (Gray Line Alaska 2018).....	17
Table 7: Package # 2 Own Design 3Days / 2 Nights	17
Table 8: Package # 4 3Days/2nights (Alaska Travel & Tour 2018).....	18
Table 9: Package # 1 Own Design 3Days / 2 Night	18
Table 10: Utilization of Loan Funds	26
Table 11: Tour Activities	26
Table 12: Employees Per Day.....	27
Table 13: Visits, Spending And Economic Contributions To Local Economies Of NPS Visitor Spending. (National Park Visitor Spending Effect, 2013).....	27
Table 14: King Salmon City Data Population in 2010	27
Table 15: Tax Calculation: Tax Rate Table B	28

Abstract

Alaska's tourist industry is currently involved in an evolution to make it more responsive to the "international" tourist. To address this opportunity, this project introduces a novel approach to apply for the first time in Alaska the "Geotourism business model" in King Salmon Alaska, by an international tour operator business. The insights gained will give us the chance to relate academic approaches as a practical application, and then analyze the results prior to undertaking the actual investment of real dollars and limited time and when such an endeavor might be feasible. The resulting research shows that King Salmon, Alaska could become in 10 years a viable Geotourism destination in Alaska. Opening a Geotourism tour operator agency, following this step-by-step approach has the potential for both profit and community growth of King Salmon. Alternatively, if no efforts are made to increase the economic base of King Salmon, the area population will continue to decline.

Introduction

Tourism is a very important activity both internationally and nationally, according to data provided by the World Tourism Organization or UNWTO (UNWTO,2017). The tourism industry is currently involved in an evolution. Surely for those who are not in the world of tourism the word *Geotourism* is new.

Geotourism, according to National Geographic and the Travel Industry Association of America (now USTA). They state that Geotourism is: “Tourism that sustains or enhances the geographical character of a place: its environment, culture, aesthetics, heritage, and the well-being of its residents.” ... " Is about the community being more involved and engaged in the tourism. using old skills in different ways and marketing to new audiences," (Geotourism,1997)

The importance of Geotourism is that it is aimed at the local population, fundamental for the consolidation of the sector, since economic growth must go hand in hand with Social Development. Regarding Alaska tourism and the numbers of visitors annually, according to the Alaska Tourism Industry Association or ATIA: “ Nearly 2 million visitors come to Alaska each year, spending money on tours as well as public land permits, campgrounds, hotel stays, rental cars, food, laundry services, airlines tickets, gift equipment and more, over \$100 Million in state revenues and \$78 Million in municipal revenue is generated by Alaska’s visitor industry through a variety of taxes and other fees, helping to fund services benefitting residents and communities”.(ATIA, 2016). This industry is an important part of Alaska’s economy. \$1.8 billion in Alaska visitor spending helps support numerous large and small tourism businesses all across Alaska – urban and rural. And according to international statistics on the growth of the Geotourism market, this may be a realistic opportunity to investigate. But, before making this decision it is important to research and determine the Geotourism asset base: We must Identify, Sustain, and Develop, the emerging Geotourism market.

My MA project is to develop a GEOTOURISM BUSINESS MODEL IN KING SALMON, ALASKA. The results will determine if I can establish a successful Geotourism business.

The steps involved in my MA project is to: First, the initial cash investment, I will have to find out if I will have a positive return on my investment in the tourism business that I am thinking to start. The first step is basically to satisfy customer needs, research about my competitors and, I will find out also what kind of Geotourism product (or experience) I will be able to market and sell successfully, where the local community can participate too.

The model begins with the research of the competitor in this case Denali will be a comparative benchmark. Denali National Park is Alaska's most famous tour destination, by far. In my analysis, I will analyze a simple travel business in Denali National Park (my competitor) and the Geotourism tourism model in King Salmon Alaska.

Return on Investment--Various tools to analyze the return on an investment include: Internal Rate of Return, Cash flow, Payback Period, and Net Present Value. The information from the application of these tools will give potential investors an indication if the King Salmon, Alaska investment will be a successful Geotourism business venture. The first step of the analysis is to obtain a good database of the Geotourist suppliers (i.e. who will provide the Geotourism experience – will it be a tour, lodging, or transportation to this Geotourism experience). In the analysis, first is *sensitivity analysis* of which the results will allow the decision maker a view that allows them to focus on the more critical components of *cost reduction* and *revenue generation*. In the last section of my research, I will conclude the analysis with a short supposition and discussion about possible future employment opportunities; and, if there is a realistic indication for *local hire* or are the future employees imported into the community from somewhere else i.e. from Anchorage and/or from outside of Alaska.

Background

The development of tourism to Alaska and the *first Alaska tourism package* begins when Thomas Cook (the explorer) began his exploratory tours to Alaska in 1841, with 540 people comprising his first tour group. In 1845 Cook was able to devote himself exclusively to organized excursions as a tour operator. In 1846 he guided 350 people by train to Scotland. In 1872 was Cook's first guided tour around the world in 222 days with 10 persons. By 1890 Cook has fully consolidated his international tourism business. Let's next focus on "tourism" today, according to Buhalis, "The emergence of the Internet, Extranets and Intranets, introduced a wide range of great opportunities and perhaps threats to tour operators. They facilitated the distribution of electronic brochures and booking forms to both travel trade partners and consumers, taking advantage of multimedia presentations about tourism destinations and packages." (Buhalis, 2000). Tourism has evolved so much. According to Zach and Racherla "Tourism is a complex phenomenon that can-not be explained by conventional economic or business logic. In a traditional sense, an industry can be understood as a number of firms that produce a limited set of products and services, and therefore, compete with one another for customers and resources" (Zach; Racherla, 2011). As stated, the Tourism Model is complex, making the Geotourism Business Model for King Salmon even more challenging. In developing a Geotourism Business Model for King Salmon, Alaska. our model will first focus on the Alaska Geotourism tour operator.

The US National Park service states that while Alaska hosts 15 national parks only one of which is well-known and marketed internationally – this is Denali National Park. (NPS, 2018). In the peak of the busy season, wilderness experience erodes as the crowds grow at Denali National Park (Schandelmeier, 2014). According an article in the *Alaska Dispatch News*, 100 buses per

day travel Denali's roadway, bringing 200,000 people during the season to travel to the Eielson Visitor Center. Wildlife viewing opportunities remain excellent, especially for grizzlies and caribou, but the quality of the experience for the individual tourist is steadily declining due to the increasing size of the crowds, and the long wait times to enter the park. (ADN, 2018).

My objective is start a Geotourism business as an Alaska attraction to compete with Denali National Park. In developing a model of a theoretical business serving the area, I first gather all the information that I need to evaluate Denali National Park (the competitor) and their principal tourist packages. Next, I develop a prospective Geotourism business model of King Salmon to compare to the Denali model. Comparing the two will make my decision if it is worthwhile to start a Geotourism business in King Salmon.

Benefits to King Salmon and beyond what are their benefits from increased commerce in the King Salmon area, as it is assumed a Geotourism tour operator would benefit the local economy, and extending these benefits, the Alaskan economy as a whole would gain. Is the Alaskan Geotourism market as good as is described in the statistics and marketing - what are the demand and supply factors that need to be considered? Are we being realistic in our analysis?

Approach

According to Zach and Racherla, "Scholars have long recognized that the complexity of tourism destinations cannot be explained by traditional organizational and marketing theories (e.g., Ritchie & Crouch, 2003)." (2011: p. 98) This quotation best explains the complexity of what I am trying to describe in the following steps of my research. The relationship between a travel agency and tour operators is quite different in the tourist business is best described by Buhalis, "In contrast with business and independent leisure travelers a considerable number of consumers normally purchase "tourist packages" arranged by tour operators and often use charter flights and

small accommodation establishments for their annual holidays. Tour operators tend to distribute their products by displaying brochures of their packages in travel agencies.” (Buhalis,2000). It is clear that the tour operators sell their product to the travel agencies and in turn to sell to the tourist. The tourism business who designs a package is a *tour operator* and who sells an experience to the tourist is the *travel agencies*. In developing a good Alaska tourism database, the development of an accurate cost estimate of the tour is critical. So many questions Is it going to be an Alaska product? Is it necessary to consider taxes? How/what is the potential target market? How is the demand and suppliers of this tour determined? Is it good to sell King Salmon in Alaska? Can computers assist tour operators to reduce the several costs involved in brochure printing and distribution? (Estimated to be about 10% of the package cost). Can we reduce costs with *electronic distribution* directly to consumers, thus realizing savings on the commissions paid to travel agencies? (Which tend to vary between 10-18%) (Buhalis, 2000). Another cost source which is very important to consider: Professional and supplier, tour guide associations, travel agency associations, tour operator associations. These all can help us obtain the best information and advice on the various variables involved. Most of the Alaska tour suppliers as: Alaska hotels, car rental, bus companies, train companies, restaurants, night clubs, museums.... which of these attractions do you want to make a part of your tour...these all have costs that need to be considered and are important in my analysis and as it relates to my competitors. Published information such as we are seeking is available at libraries or at various government agencies, and the *internet* will help me. Information about the King Salmon culture can be obtained. In our model, how many tourists are coming to King Salmon? Coming to Alaska? Utilizing all of these many considerations discussed previously, a *Geotourism business model* was developed of the prospective of the local tour operator.

Analysis Competitor:

Its Primary Competitor – at Denali National Park, the following information provided the scenario for the base case, which will be presented here: A loan of \$121,000 we assume is secured to cover costs in the first 2 year of operation. This loan uses a 4% interest rate and a 5-year period. Rate for tourist business NOTE: we are assuming that there exists sufficient collateral to obtain the loan.

Related Assumptions:

- Office rental costs amount to \$2,000 a month
- Insurance incurs a cost of \$1250 a month
- Utility \$100 a month.
- Invest in the minimum for the office like computer and the rest of supplier
- 1 employee working 40 hours' weeks at \$15 per hour, 173.33 month. (Fisher, 2014)
- To start with the minimum employee with a plan to improve and hire more employees.
- We may sell between 500 and 600 tour packages.
- Depreciation is handled under Section 179 (Alaska Department of Commerce Financing, 2018)
- Capital acquisitions will remain low enough to handle depreciation under Section 179 rules.
- I include the tax 34% on the revenue.
- The agency will operate only during the summer months. From May to September.
- After I am having all this information, I will go to the next step to analyze with the tools

- I will estimate a model of a possible tourism business I will be use Time value of Money, May cooperation chart. I will use the tool in order to provide a tool for forecasting, estimate the cost and revenue. Cash flow payback period, NPV and IRR.

Denali National Park Analysis

The most visited Tourist attraction in Alaska is Denali National Park and Preserve. According to Levi, Steven C who has lived for more than three decades in Alaska “Denali National Park and preserve has been Alaska’s top tourist attraction for century...the mountain here was named Denali, or “the mighty one,” by local Indians. That name now designates the entire park and preserve.” (Levi,1998). In the National Park is mountain McKinley, 20,320-foot peak and for his wildlife the Park is well-known. (Levi, 1998) The statistic confirms that still Denali is the more attraction in Alaska and 37 % visit Denali they came with a tourist packages, 59% informed by friend/relatives/word of mouth and 58% maps/brochures/travel guides/ tour books. (uidaho,2016), On the other hand the Alaska Travel Industry Association (ATIA), statistics mention that most tourists visiting Alaska got the information from maps/brochures/travel guides/ tour books, they show this statistic is they invest more in brochures and print publicity. (ATIA, 2016)



Figure 1: Railroad Link – Anchorage to Denali National Park (Round Trip)

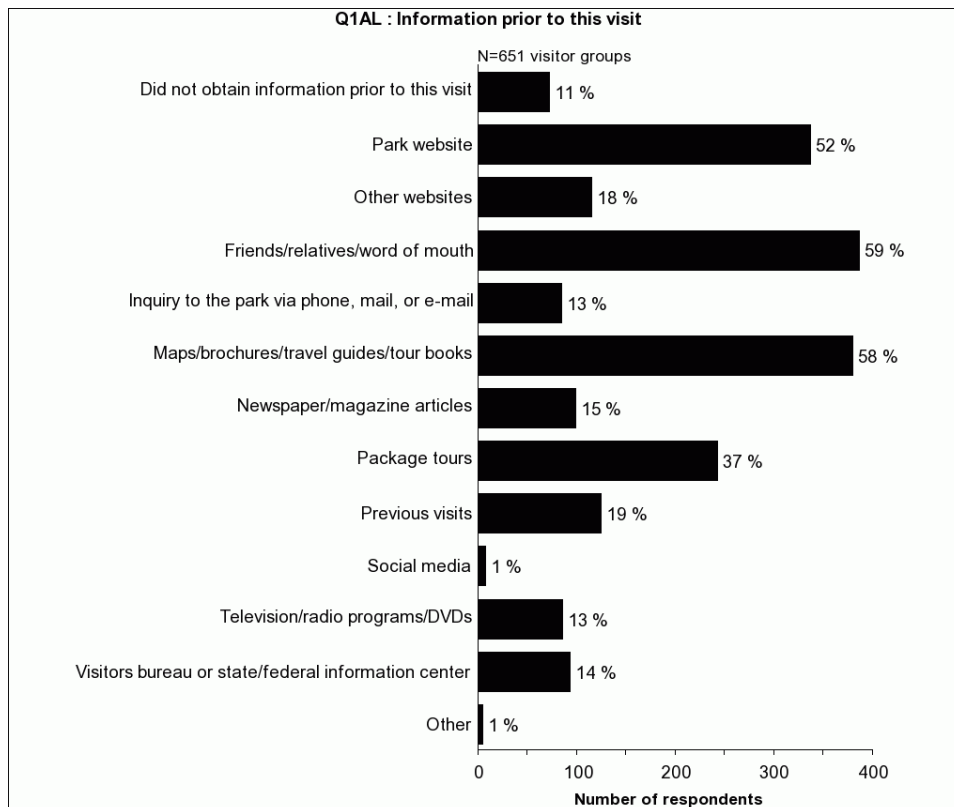


Figure 2: Information Prior to Visit – Denali National Park Statistics

Referring to the database we can start using the tools to estimate costs of Denali packages. After my analysis, the next step was to choose 2 tourist packages from a Anchorage local tour operator and make my own design with the same destination Denali.

3Day/2 night with Destination Denali,

In my analysis, I use the tourist packages with the same hotels, the tours from local tour operations in Denali, train and buses.

Table 1: Prices from Denali Park Village

Name of Park Tour	Price Per Adult	Time in Hours
Tundra Wilderness	\$199.00	7 to 8 H
Denali Natural History	\$98.00	5 H
Kantishna Experience	\$199.00	11 to 12 H
Windows into Wilderness	\$120.75	6 H

Table 2: Prices From Grayline Alaska

Name of Park Tour	Price Per Adult	Time in Hours
Tundra Wilderness	\$159.00	
Denali Natural History	\$99.00	
Kantishna Experience		
Windows into Wilderness	\$139.95	

Table 3: Hotel Prices and Name

HOTEL PRICES AND NAME		Distance from entrance of DNP	Room Price	Milepost
Denali Bluff Hotel			\$129.00	238.4
Denali Park Village		7 miles	\$190.00	231
Denali Princess Lodge		1 mile	\$199.95	238.5
Grand Denali Lodge			\$159.00	238.2
McKinley Chalets			\$249.00	238.5

Table 4: Denali Park Village Activities

Denali Park Village Activities	Price x Per Adult	Time/Miles	Class Level
Cabin Night Dinner theater	\$67.00	5:00 to 7:00 pm	
Canyon Run Rafting	\$99.00	Through 11 miles	III-IV
Paddle Rafting - Canyon Run	\$99.00	Through 11 miles	III-IV
Wilderness Run Rafting	\$99.00	Through 13 miles	I - II
Triple Lkes Interpretive Hike	\$99.00	RT 4 Miles Hike	
Rock Creek Interpretive Hike	\$99.00	RT 4 Miles Hike	
Step Thru Time- Hiking	\$99.00	7:30 AM Hike	

Table 5: Tour Bus Pick Up and Drop Off Activities

Tour bus Pick up and Drop off Pax from	Tundra Wilderness tours	Kantishna Experience	Denali Natural History Tours	Windows into Wilderness
Denali Bluff Hotel	X	X	X	-
Denali Park Village	X	X	X	X
Denali Princess Lodge	X	X	X	X
Grand Denali Lodge	X	-	X	-
McKinley Chalets	X	X	X	X

Table 6: Tour Package # 3 - 3 Days / 2 Nights (Gray Line Alaska 2018)

Tour 3Days/2Nights	Tour D2A - Denali Sampler (All Rail)
Tour Highlights:	
2 night's hotel accommodations near the Denali National Park entrance	
Travel on the Alaska Railroad route aboard luxury railcar	
Ample time to explore Denali National Park	
Rail and hotel transfers in Denali National Park.	
The peak season rate for this package is \$689.90 per person, based on double occupancy	

Table 7: Package # 2 Own Design 3Days / 2 Nights

Tour 3Days/2Nights	
Tour Highlights:	
2 night's hotel accommodations near the Denali National Park entrance	
Travel on the Alaska Railroad route aboard luxury railcar RT.	
Ample time to explore Denali National Park	No tour, No entrance fee
Rail and hotel transfers in Denali National Park.	Hotel Transfer
The peak season rate for this package is \$591.50 per person, based on double occupancy	

Table 8: Package # 4 3Days/2nights (Alaska Travel & Tour 2018)

3D/2N by train and motor coach to Denali Park Experience tour 5001	
Day 1 Anchorage Museum	
Motor coach Anchorage to Denali Park (PM),	
Denali Bluffs Hotel, overnight in Denali Park for 2 nights	
Day 2 Kantishna Wilderness Trails Bus Tour Denali Park.	
Day 3 Denali Park Rafting Scenic Mild Water,	
Railroad Denali Park to Anchorage. Tour concludes in Anchorage	
The peak season rate for this package is \$736.00 per person, based on double occupancy	

Table 9: Package # 1 Own Design 3Days / 2 Night

3D/2N by train and motor coach to Denali Park	
Anchorage Museum	Entrance fee
Motor coach Anchorage to Denali Park (PM), from 3:00 PM to 8:30 PM	OW BUS
Denali Bluffs Hotel, overnight in Denali Park for 2 nights	
Kantishna Wilderness Trails Bus Tour Denali Park, from 6:30 AM to 7:00 PM	TOUR 1
Denali Park Rafting Scenic Mild Water, from 7:10 AM to 10:30 AM	TOUR 2
Railroad Denali Park to Anchorage, from 12:30 PM to 8:00 PM	OW TRAIN
Tour concludes in Anchorage	
The peak season rate for this package is \$890.50 per person, based on double occupancy	

Analysis 3 D/ 2 N Denali

Analysis # 3 Grey Line Alaska Price \$689.90 Package # 3

Analysis # 2 Own Design Price Price \$591.50 Package # 2

Analysis #3 and Analysis #2 have the same hotel. I design following the package of Grey Line.

In this case my design is cheaper

Analysis 3D/ 2 N Denali

Analysis # 4 Alaska travel Price \$736.00 Package #

Analysis # 1 Own Design Price Price \$890.50 Package # 1

Analysis #4 and Analysis #1 have the same hotel. I design following the package of Alaska Travel. In this one my prices are more expensive:

Results and Analysis

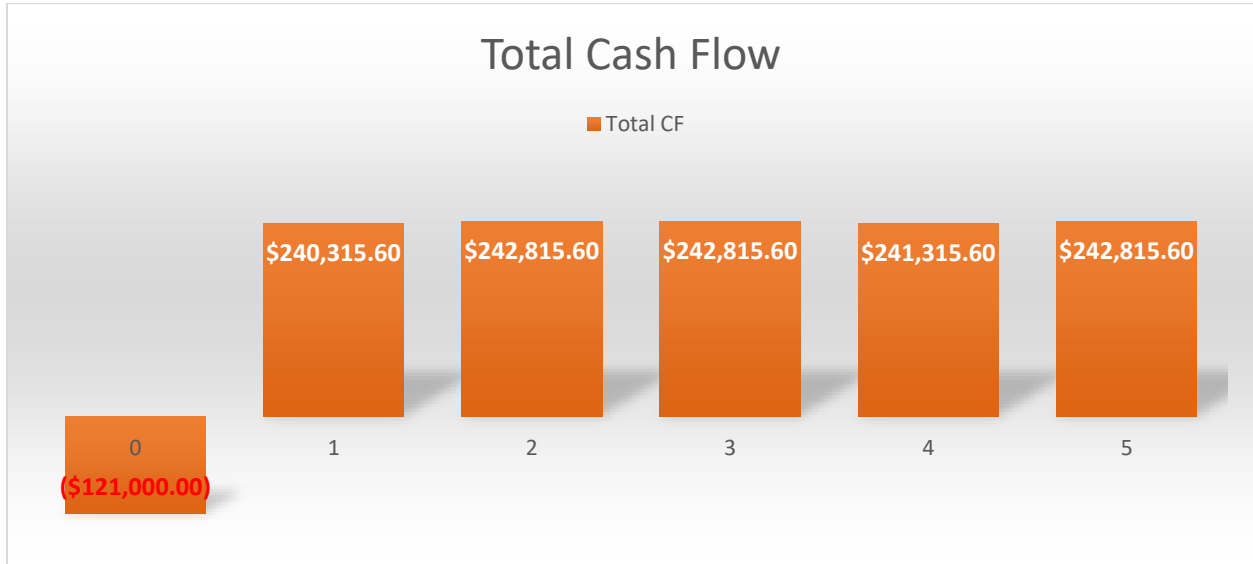


Figure 3: Analysis # 1 Total Cash Flow (a)

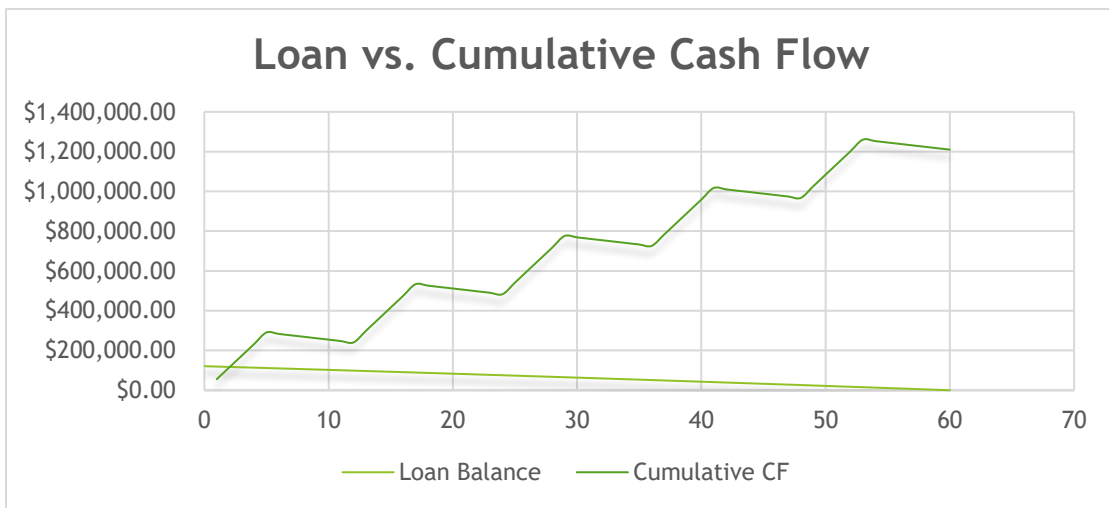


Figure 4: Analysis # 1 Denali Loan vs. Cumulative Cash Flow (b)

This is from the package I designed. I assume 20% of profit with my own tourist package revenue. It seems to be beneficial. I will get good revenue. I get more revenue than I owe the

bank. My Cash Flow seems to be almost equal, must be because I assume, I will sell the same amount of tourist packages. (500 packages)

NPV = \$419,729.61 and IRR 198% with this NPV and IRR positive and very good numbers. Got the pay back fast. It means that there is demand and with the packages that are sold you get very good profit. For the good CF the second year I could improve my business.

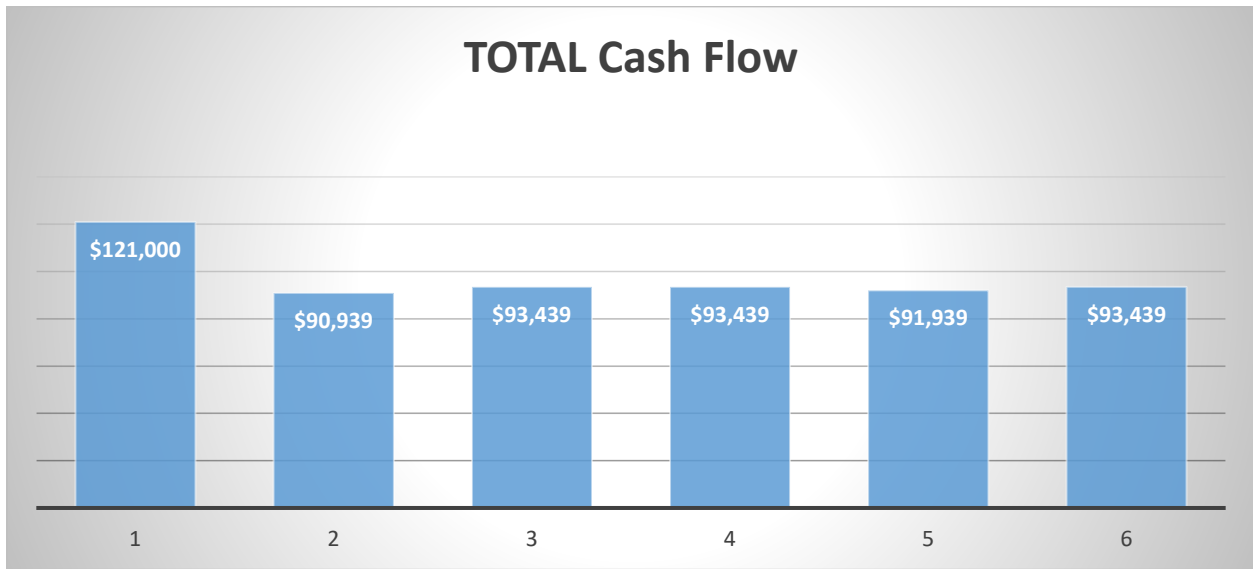


Figure 5: Analysis # 2 Total Cash Flow

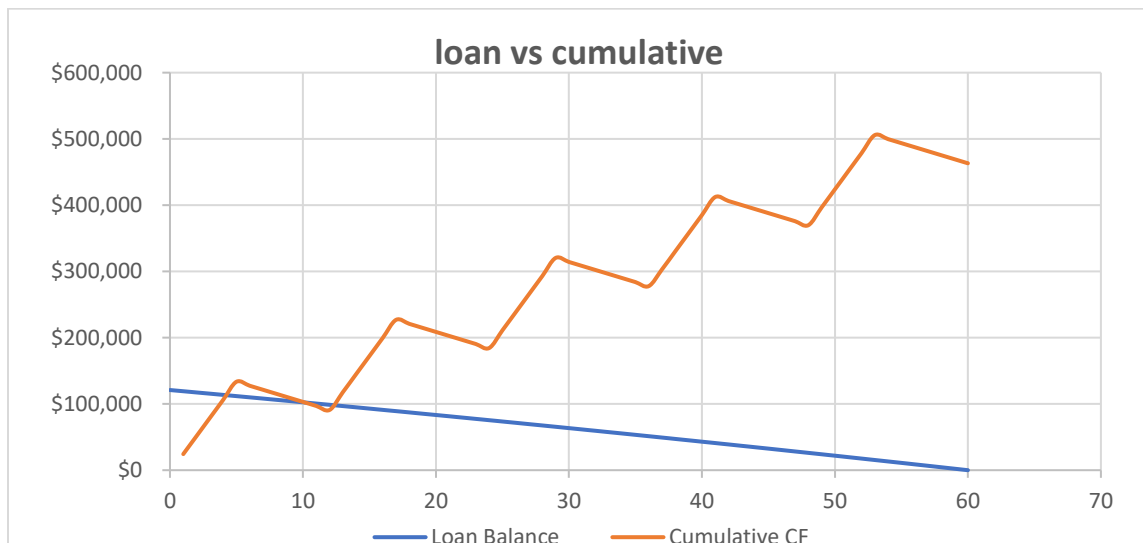


Figure 6: Analysis # 2 Denali Loan vs. Cumulative Cash Flow (b)

This is from the second package with my own design. I assume 20% of profit with my own tourist package revenue. It seems to be beneficial. I will get good revenue too. I get more revenue than I owe the bank. My Cash Flow seems to be almost equal, must be because I assume, I will sell the minimum amount of tourist packages. (600 packages).

Good NPV = \$337,745.68. And Positive IRR too. For the good CF the second year I could improve my business too, and get good profit

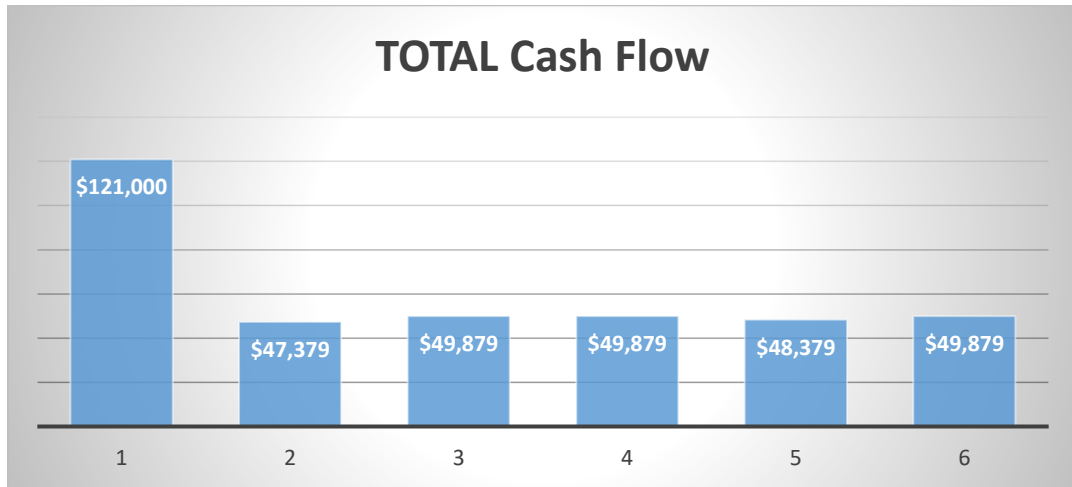


Figure 7: Analysis # 3 Total Cash Flow (a)

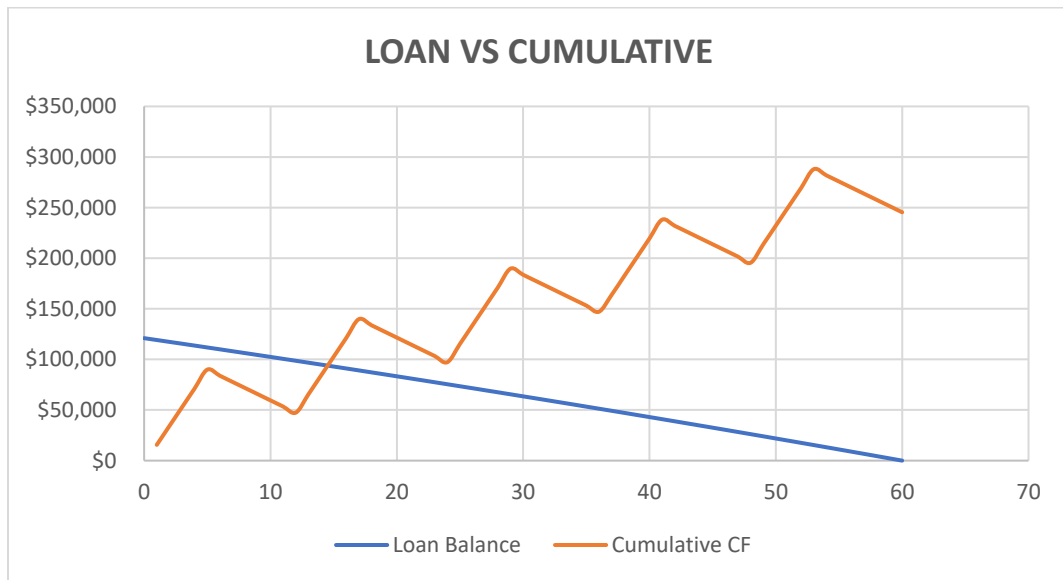


Figure 8: Analysis # 3 Denali Loan vs. Cumulative Cash Flow (b)

This is from the package I did not design; the agencies and the same local tour operator sell, then I assume 10% of profit. It seems to be beneficial too. Less revenue than the first and second Analysis. I will get good revenue. I get more revenue than I owe the bank. My CF seems to be almost equal, must be because I assume, I will sell the same amount of tourist packages. (600 packages) NPV = \$244,253 and IRR Positive too. With this NPV and IRR positive and very good numbers. Got the pay back fast too.

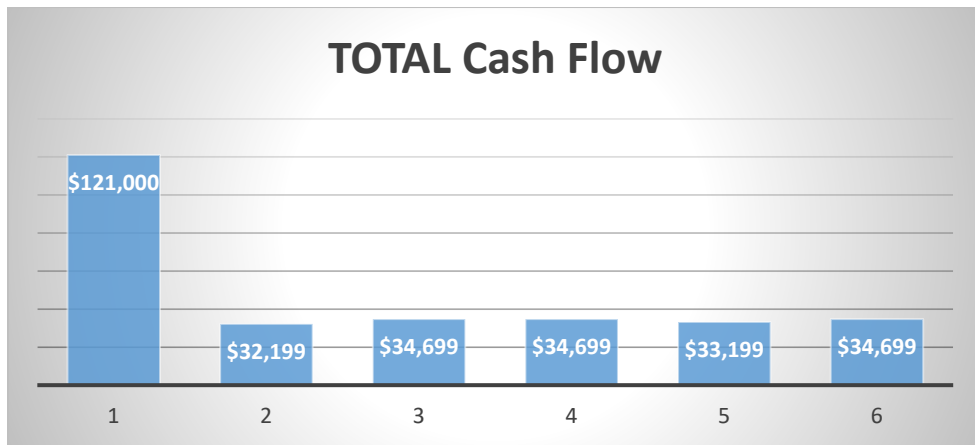


Figure 9: Analysis # 4 Total Cash Flow (a)

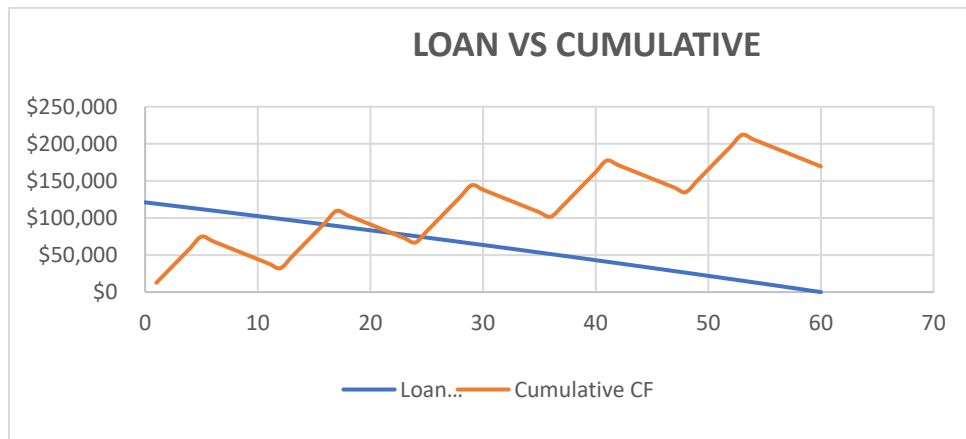


Figure 10: Analysis # 4 Denali Loan vs. Cumulative Cash Flow(b)

This is from the package I did not designed either. I assume 10% of profit. It seems to be beneficial. I will get less revenue. I get more revenue than I owe the bank. My CF seems to be almost equal, must be because I assume, I will sell the same amount of tourist packages. (500 packages) NPV = \$211,672 and IRR positive too with this NPV and IRR positive.

Result

I have analyzed the 4 types of tour packages that sell Denali National Park which is the main competitor, in the 2 forms that are sold commissioning 10% or the comparatives to which they are sold but with my own design.

The analysis # 1 and # 2 got the best Revenue. Must be because both tourist packages that I designed with 20% of profit. I start getting good revenue since the second year. My CF always is positive NPV and IRR are positive, it is means it is a good business. I will get pay back and good or excellent profit. I can manage my own profits. 20% is the minimum profit. In analysis # 1 my designed packages is more expensive than the one is selling in Anchorage # 4.

Analysis #4 according to the research (Buhalis, 2000). I can get 10% profit to start. But I will not get more revenue that the Package #1. The packages will be managing for another travel agencies and according to their rules.

The same with Analysis # 3, I can only get 10% profit. Analysis #1 and # 2; I got the best Revenue. And Analysis # 1 is the best option. Also, if I assume in Analysis # 1, I will sell only 500 packages less than Analysis # 2 (600). I got more revenue.

These are the main packages that sell Denali National Park who is its main competitor.

In general, the 4 Analysis have a positive IRR and NPV, fast grow on revenue. In the first 2 analysis I will get good revenue. This was the first step of my research. With the most popular packages.

Next step is analyzing my Geotourism business model with my own packages in King Salmon



Figure 11: Location of King Salmon on Alaska Map

Geotourism Business Model in King Salmon:

A business model was developed for the prospective Geotourism tour operator agency based in King Salmon, AK. The following information provided the scenario for the base case, which will be presented here:

- A loan of \$185,000 is secured to cover costs in the first year of operation. This loan uses a 4% interest rate and a 5-year period. Rate for tourist business (Alaska Department of Commerce Financing, 2018)
- Office rental costs amount to \$2,000 a month
- Insurance incurs a cost of \$1,250 a month
- 7 employees working 40-hour weeks at \$15 per hour (Fisher, 2014)
- We are able to serve approximately 900 visitors out of the nearly 29,000 that visit the area during the course of a summer. (National Park Visitor Spending Effect, 2013)
- Capital acquisitions will remain low enough to handle depreciation under Section 179 rules. (Alaska Department of Commerce Financing, 2018).

- The agency will operate only during the summer months.

Activities provided by this Geotourism tour operator agency were decided to be:

- 1) Bear viewing: This would include costs for 2 hours of engine time in a twin-engine propeller-driven aircraft, rented from a local business, and a pay premium for the pilot. Cost to the consumer for this would be a \$600 per person charge, competitive with other bear viewing offerings outside of the Anchorage area. (Alaska.org,2018)
- 2) Guided fishing: The \$150 per person price includes a \$12 deduction that would be put towards providing a lunch for customers, as most fishing trips last 4-6 hours. The acquisition of rods, reels, tackle and a small fishing boat were included in “Outdoor Equipment” costs of the model and deducted from revenues each year.
- 3) Guided hikes: \$100 per person can get the consumer a guided hike led by one of our employees, and also includes costs for a lunch.
- 4) Cultural activities: These activities are also priced at \$100 for the base case, and will cover local culture, history of the former Air Force, base and possibly the Auroral Radar Network site located here.

Other costs incurred in providing the above activities were employee training, which included costs to train all employees in emergency medicine to the level of Emergency Trauma Technician, and for two employees to be certified as bear guards. Advertising, office equipment and leases of office space and a truck were also included in costs.

Table 10: Utilization of Loan Funds

Loan amount	\$185,000
Loan rate	4%
Loan period	5
Office rental	\$2,000
Wages	\$15
# Employees	7
Employee Training	
Truck lease	\$250
Insurance	\$1,250
Man hours/day	10
# Employees working/day	4
Advertising	\$500
Depreciation	Sec. 179
Effective Tax Rate	40.20%

Table 11: Tour Activities

	Daily Customers	Price	Revenue	
Bear Viewings*	4	\$600	1870	
Fishing Trips	6	\$150	828	
Cultural Hikes	4	\$100	352	
	4	\$100	352	
* Valid values = 0-12			3402	Daily Revenue

Number of employees selected was the minimum for:

4 employees available every day

No overtime

The model accommodates changes in numbers of employees

Table 12: Employees Per Day

		Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Employee	1	[Red]						[Red]
	2	[Orange]						
	3		[Yellow]					
	4			[Green]				
	5				[Dark Green]			
	6	[Light Blue]				[Light Blue]		
	7	[Dark Blue]					[Dark Blue]	

Table 13: Visits, spending and economic contributions to local economies of NPS visitor spending. (National Park Visitor Spending Effect, 2013)

Park	Total Recreation Visits	Total Visitor Spending (\$000)	Contribution of all Visitor Spending			
			Jobs	Labor Income (\$000s)	Value Added (\$000)	Output (\$000)
Katmai	28,966	\$42,854.6	592	\$21,338.6	\$35,828.5	\$59,675.2

Table 14: King Salmon City Data Population in 2010

Population in 2010: 374. Population change since 2000: -15.4% [7]
Males: 220 (58.8%)
Females: 154 (41.2%)
Median resident age: 34.3 years
Alaska median age: 33.5 years

- Tax Calculation State tax follows Alaska state schedule
- Federal tax for the revenue range is 34%
- Uses the formula (Fisher 2014)

● $T_e = f + s - (f * s)$

Equation 1 Tax Calculation

- Effective combined tax rate is 40.20%

Table 15: Tax Calculation: Tax Rate Table B

TAX RATE TABLE B (tax years beginning on or after 8/26/13)				
(1) At Least	(2) But Less Than	(3) Your Tax is	(4) Plus	(5) Of The Amount Over
-0-	25,000	-0-	-0-	-0-
25,000	49,000	-0-	2%	25,000
49,000	74,000	480	3%	49,000
74,000	99,000	1230	4%	74,000
99,000	124,000	2230	5%	99,000
124,000	148,000	3480	6%	124,000
148,000	173,000	4920	7%	148,000
173,000	198,000	6670	8%	173,000
198,000	222,000	8670	9%	198,000
222,000 or more		10,830	9.4%	222,000

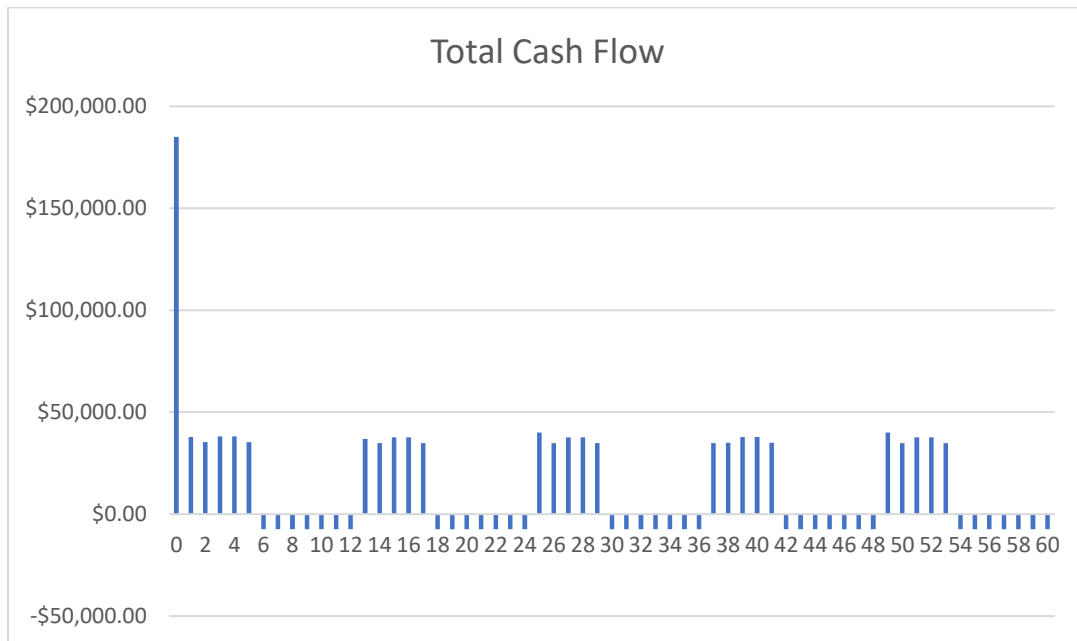


Figure 12: King Salmon Analysis: Total Cash Flow(a)

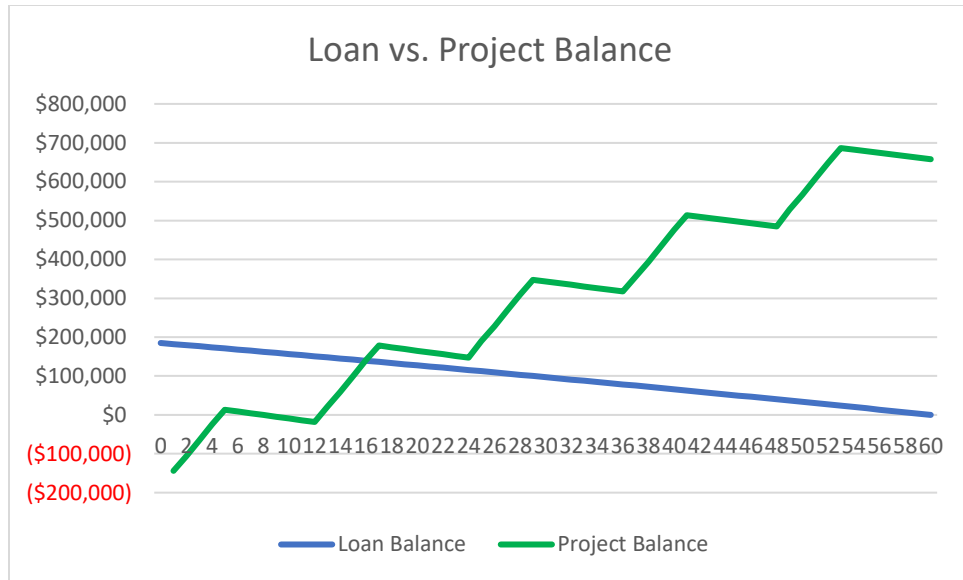


Figure 13: King Salmon Analysis: Loan Payment (b)

Model Base Case Outcomes

Information derived from the use of this model and base case combination indicate that this business will break even toward the end of the second operating season and has a modified internal rate of return for the 5-year period of 8.56%.

King Salmon Sensitivity Analysis

In order to provide better prediction, sensitivity analysis was performed on major variables. This allows the manipulation of these variables to maximize the business' profitability using the least effort. Measured the influence of 4 variables

- Loan Amount
- Loan Period
- Interest Rate
- Revenue
- Used linear trendline to provide formulas.

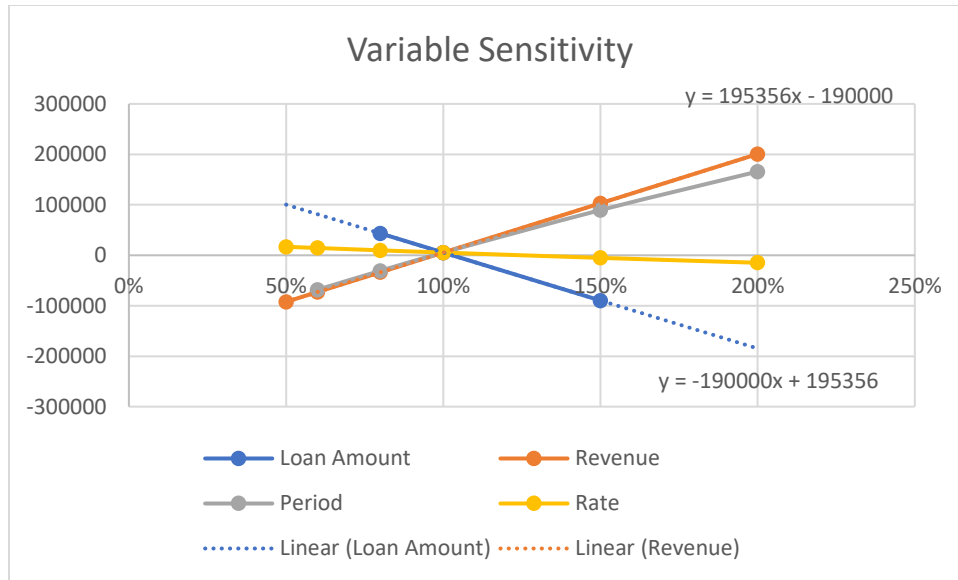


Figure 14: King Salmon Variable Sensitivity

In this case we can see that the most sensitive variable is revenue, indicating that in order to increase profitability we would want to change factors that have an effect on total revenue, like advertising. The amount and period of the loan were the next most sensitive variables. While the period of the loan was set at 5 years to match the scope of my project, it appears that increasing the period would have a large effect on the profitability of the business. The amount of the loan likewise has a large effect on the business, but due to the seasonal nature of the Geotourism business, cannot be decreased further without finding another source of funding, such local or state government, or an outside investor. The population of King Salmon, Alaska has begun to decrease. We want to reverse that.

Conclusion

The findings of our analysis of the situation allowed us to conclude that not only did opening a tour agency in King Salmon provide the possibility of financial gain, but that through increased commerce in the area, a tour agency would benefit the local economy, and the Alaskan economy as a whole. This endeavor is not without a certain degree of risk, however

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