**Business Case**

**Focusing on Data and Expanding the Team**

**Travelport**

**9200 E Panorama Cir #200**

**Centennial, CO 80112**

**Date**

**August 6th, 2021**

**Table of Contents**

[1.](#_gjdgxs) Executive Summary 3

[1.1.](#_30j0zll) Issue 3

[1.2.](#_1fob9te) Anticipated Outcomes 3

[1.3.](#_3znysh7) Recommendation 4

[1.4.](#_2et92p0) Justification 5

[2.](#_tyjcwt) Problem Definition 6

2[.1.](#_3dy6vkm) Problem Statement 6

2[.2.](#_1t3h5sf) Organizational Impact 6

# 3. Project Overview 7

# 3.1 Project Description 7

# 3.2 Goals and Objectives 8

# 3.3 Project Assumptions 8

# 3.4 Project Constraints 8

# 4. Strategic Alignment 9

# 5. Cost Benefit Analysis 9

# 6. Conclusion 9

# 

# 

# 

# Executive Summary

Data is an integral part of any company. It is constantly collected with every action that a user, agent or employee takes. Travelport is sitting on massive mounds of untouched data which can be used to benefit the growth of the company. Using the data that Travelport can collect will increase revenue, improve customer relations, improve employee productivity and overall company satisfaction.

## Issue

While Travelport has been making progress towards data utilization, not enough emphasis and direction is put towards it. Travelport isn’t doing as much with the data that it currently has and is not collecting the data that it can be collecting. That is inefficient and counterproductive.

## Anticipated Outcomes

The benefits of data utilization within the company include:

* Improving its’ products
* Improving its’ processes
* Direct actions based on emerging trends
* Identify future opportunities

Doing so will put Travelport ahead of the curve, taking market shares and being a leader in its field.

## Recommendation

Various options and alternatives were considered and analyzed to determine the best way to leverage data to improve the business processes.

Areas of focus and descriptions:

* Data Collection
* Data Optimization/Normalization/Organization
  + Standardizing the data and putting everything on a single dashboard
* Data Management Strategy/ Data Governance
  + Need a roadmap, how will data improve the company and figure out how to collect, store, analyze and present the data
  + Improve data quality
* More Data related hires
  + More Data Scientists, Data Analysts, Data Engineers, etc

Based on the recommendations above, these areas of focus include fixing the data, hiring on more data professionals, and having a data management strategy.

## Justification

To elaborate on some points from the previous section, data collection and data normalization is extremely beneficial; the more data we have, the better we can enhance or sell our products to target customers. To achieve this, there needs to be an efficient method to collect a company’s metadata, this includes data such as name, phone number, addresses, their target customers (e.g., business or leisure travelers) and if a company has changed names or was bought out.

# Problem Definition

## Problem Statement

The business problem arose when a large percentage of the Data Science team was let go at the start of the pandemic. That was a business decision to keep the company afloat, however the overall impact of this decision was a deprioritization of data related projects which revealed a lack of emphasis on data. Through further investigation, it was discovered that not only was there a lack of interest, but the data team was also disorganized, scattered and non-collaborative towards the greater whole.

## Organizational Impact

Organizational Changes: Currently, there are no data representatives on Agile Release Trains to ensure that products have a method to collect, analyze and use data, the structure of the teams will change as we add more data focused people on the team.

However, since data isn’t obtained from a single source, it is vital to have an overarching data team that overlooks all of the Agile Release Trains to define dependencies, methodologies and priorities. In addition to this, depending on the scale, a new data branch could be set up who would be responsible for the data teams such as a new CTO who is responsible for Travelport’s overall data or a Chief Analytics/Data Officer or the new teams could also continue to report to our current CPTO.

Hardware/Software: There are three approaches to this, Travelport could continue as-is and use its existing tools, invest in a more efficient tool, or standardize the tools across the company to improve current processes and reduce and/or avoid technical debt

Existing roles: This would not change, the focus would shift to openly communicate the current projects and requirements, which could easily be incorporated in the PI planning process.

# Project Overview

Focusing on data helps the company. It will grow the company, improve its’ products, improve its processes, direct actions based on trends, define goals, identify future opportunities, refine its targeting for general improvement, either on the consumer side or company side. Doing so will put Travelport ahead of the curve. As we are improving our products and identifying future opportunities, this is a movement for financial and corporate growth. As of 2018, Travelport has $2.5 billion dollars of revenue. The global revenues for companies who utilized big data and business analytics went up by 12.4%[1]. That number should be higher since Travelport has a multitude of products that we could collect relevant consumable data from and profit from it. The alternative is to continue the path that Travelport has been doing and not focusing on drastically improving its data science team and not analyzing and evaluating the data needed to improve Travelport as a company.

Goals: Collect existing data from product, improve and expand the data professional teams to handle the future workload and increase revenue

Performance Criteria: As the data teams are up and running at full force, utilize their skill sets to improve company performance, increase company revenue, and make the company a competitive force.

Constraints: Cost of hiring more employees, time to evaluate the current tools, time to train the new employees and a slight reorganization of the company.

## Project Description

* Data Collection
  + Data needs to be collected and stored
  + Missing specific company metadata
* Data Optimization
  + Reduce the complexity of retrieving data and reduce the physical processing needs of retrieving data.
* Data Organization
  + Organize the data so that way it can be accessed quickly
* Data Normalization
  + Reduction of data redundancy and improve data integrity. Since data is spread across multiple different resources and different data warehouses and data sources, one terminology could mean different things across the warehouses and sources. This also improves the management of the central data repository.
* Data Management Strategy/ Data Governance
  + Need a roadmap on how to use data to achieve Travelport’s goals. Since there isn’t a hyper focus on how data at Travelport could be used and taking an initiative on all the data that is available, there is much to be done and many areas could be improved.

- Language for production should be quick and easy to use

* + Having one language streamlines the process and makes it consistent across all teams.
  + Since we are moving over to AWS, it should be taught formally to all users, not just admins
    - ex. Query efficiency and Cost Monitoring should be available to all
* More Data Hires
  + More Data Science hires to look at different problems and make better predictions
  + More Data Analysts hires to analyze the data to present to stakeholders
  + More Data Engineer hires to organize and process the stored data
  + More hires means that problems can effectively identified, tackled and moved to production much faster. They can also spread themselves out amongst the data and find more opportunities for growth
* Invest in project teams
  + Each team would be attached to various functions or projects across the company
  + Each team would be better equipped to know how to move forward with its’ specialized data area
  + This will allow Travelport to tackle larger projects
* Consolidate and update current tools
  + Can be an extension of data normalization, this improves processes and increases efficiency.
  + As newer versions are developed, they offer new and more efficient features to get work done.
    - ex. Qlik View to Qlik Sense

## Goals and Objectives

|  |  |
| --- | --- |
| **Business Goal/Objective** | **Description** |
| Increase data hires | Need more employees to handle the future workload |
| Increased revenue | A minimum of 12.4% global average increase |
| Improve business process | Make more processes efficient, stop bottlenecks, speed up processes |
| Improve customer satisfaction | Using data to figure out what processes could be |
| Increase company innovation | Using predictive analysis to improve company products, prospects, benefits |

## 

## Project Assumptions

The assumption is that there is data that is available to analyze, evaluate and capitalize on.

## Project Constraints

The constraints that would occur due to a focus on data would be time and money.

* One of the largest constraints would be data collection and incorporating this into the existing structure
  + Ex. NDC has one of the largest gaps in data collection as well as most of our current products. There needs to be an effective method to collect the data as they are being used by clients.
* Taking the time to build out a data management strategy and ensure it aligns with business goals
* Finding a respectable budget whilst increasing profitability
* Finding the right personnel to implement the data management strategy
* Finding the right tools to meet the company and/or specific project needs
* Finding the time to investigate the company data lake and identifying how it can be optimized

# Strategic Alignment

Travelport’s four values are:

1. Put People First

* By focusing on data, we are putting the customers first. We are investigating the customer’s data and how we can use it to improve their business
* We are also putting our employees first. We can use data to understand how to to improve our current systems which in turn improve employee productivity

1. Keep Things Simple

* Standardizing tools
* Data will show you the path that makes the most sense
* Data can be investigated, utilized, and presented in a simple way

1. Be Bold to Win

* Travelport has had a history of either focusing on data or not. Data utilization has always been around, but data analytics can drive innovation. Predictive modeling can shape the company’s future, determine patterns, and make definitive future decisions based on the data that will let us win more of the market share.

1. Stay One Step Ahead

* By using predictive modeling on customer data, we can stay a step ahead of the market. We can predict outcomes, future anomalies and predict metrics
* We can also use predictive modeling on predicting the competitors reaction to a product that we release or on future events and stay ahead of the curve by reacting to their reaction[2].

# Cost Benefit Analysis

According to GlassDoor, the cost of hiring a Data Scientist in the US is approximately $116k/year, a Principal Data Scientist would cost approximately $150k/year, a Senior Data Scientist is approximately $130k/year, Data Engineers are $105k/year and Data Analysts can range between 66-75k/year. If Travelport had had a total of 10 new Principal Data Scientists, the total cost in paying them would be approximately $1.5 million.

If we were to take the average increase of 12.4% in revenue a year by adding on the 10 data scientists with our 2018 revenue of $2.5 billion, that would be an increase of $310 million dollars per year. The cost of hiring 10 Principal Data Scientists is roughly 0.0048% out of the total profits that could be gained if Travelport effectively utilized their skills. Even if Travelport only saw an increase of 5% in revenue, that is $125 million, a 1% increase in revenue is $25 million, both increases are still less than the 1% cost of hiring the team. There is significantly more benefit to hiring on more data professionals than not.

# Conclusion

In conclusion, data is not effectively utilized and collected by Travelport. If Travelport effectively investigates all areas of data collection and increase the number of data professionals, Travelport can increase revenue, improve business process, improve customer satisfaction, and increase company innovation. Travelport can increase company revenue over $300 million by following the guidelines listed in this document.

s

Sources:

1. <https://www.conceptatech.com/blog/how-data-science-can-help-your-enterprise-generate-more-revenue>
2. https://hbr.org/2009/04/predicting-your-competitors-reaction