

ACCOUNTING ANALYTICS CAPSTONE

UNEARTHED PRODUCTIONS



ABOUT

Unearthed Productions (UP) is a Singapore's award-winning events agency, which offers a full-service event management solutions with extensive industry experience hosting some of the largest hybrid and virtual events.

BUSINESS CHALLENGE

As the demand for physical events rebounds after COVID-19 period, UP has successfully organised 110+ events. Now the management aims to optimize profits by prioritizing most profitable target customers and event types.

ROLE OF ACCOUNTING ANALYTICS

By using accounting analytics, UP can gain valuable insights into the revenue and profitability for each customer and type of event. The insights will empower informed decision-making by the management.

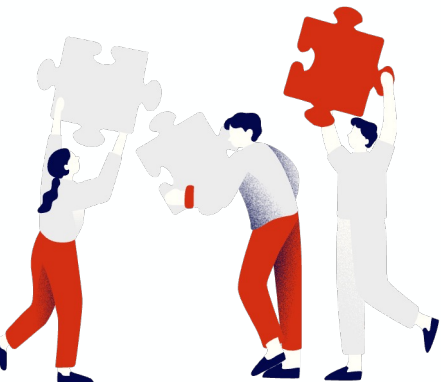
PROBLEM STATEMENTS

We identified 3 major challenges in analysing the most profitable customers and event types.

- 1 We extracted data from two databases which were not linked to each other.
- 2 There were no existing classification of customer's industry and types of events in both databases.
- 3 The current dashboard created by accounting system showing broad business performance but lack of granular-level insights.

OUR APPROACH

- 1 **PRE-PROCESSING**
Create an industry classification based on Singapore Standard Industrial Classification (SSIC) codes.
- 2 **DATA CLEANING**
Clean data using Python. Merge data from two different sources based on common project IDs.
- 3 **DATA VISUALISATION**
Use Tableau to create a set of 6 dashboards, enabling insights from a high-level overview to granular details.



ILLUSTRATIVE DASHBOARDS

These are sample dashboards from our models. All visuals and charts shown here are hypothetical and based on proxy data.



INSIGHTS

- OVERVIEW**
Executive summary provides insights on whether majority of revenue and profit are made up by existing or new customers. Management can also know immediately how much revenue and profit they earned from each deal on average and the top 3 leading customers, event types and industries.
- INSIGHT ABOUT INDUSTRIES**
Management can gain insights into the most lucrative industries to focus on. They can delve deeper into specific industries with just a click.
- INSIGHTS ABOUT EVENT TYPES**
Management can gain insights into the most profitable type of events. Clicking on a specific event type, another dashboard will emerge providing in-depth information about the customers for that type of event.
- INSIGHTS ABOUT CUSTOMERS**
Management can gain insights into the most profitable customers. Using the profit margin filter, the dashboard will flag out the customers with abnormal margins. Clicking on a specific customer, the Customer Card will emerge providing details about that customer.

MOVING FORWARD

To enhance the sustainability of our analytics solution, we have proposed 2 additional implementation options to improve data quality for our clients.

UTILISE SINGLE DATA SOURCE

Management can consider implementing 2 additional fields (industry classification, event type) into existing accounting system. This would help reduce the need for manual adjustments and enhance the accuracy of data.

IMPROVE DATA ENTRY PROCESS

Management can use a common platform (e.g., Google Workspace) for sharing Event ID between sales and finance team. This would streamline the merging of datasets using a common Event ID tag.

OUR LEARNING

During the SMU-X Accounting Analytics Project, our group has gained several valuable insights.

CLIENT-CENTRIC MINDSET

It is important to keep the business needs in mind in order to deliver features that are valuable for the client.

IMPORTANCE OF DATA INPUT

Having the right data is the most crucial step before starting the analytic projects. Only accurate data inputs can create accurate data outputs.

OUR TEAM & APPRECIATION

We sincerely thank our project sponsor Unearthed Productions, our project advisors including Prof. Gary Pan and Prof. Benjamin Lee, and our project manager Chen Shan Shan for your support in this learning journey.

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