SLIDE 1

Team 76 would like to explore the drivers of innovation.

SLIDE 2

HQ1 – our objective

Innovation is more than just creativity or new technologies. It’s about making an impact and implementing change to deliver value, enabling a brighter future for people and even nations. Our objective is to determine the factors that drive innovation and define those relationships in a quantifiable manner. We want to craft a means to identify and visually showcase the “what”, “why”, and “how” of innovation at a country level.

HQ5 – the impact

If successful, we can not only introduce a new perspective into how and where to spark innovation worldwide, but illustrate those relationships. We will be able to validate our findings by comparing them with existing efforts such as Lee et al.’s Bohemian Index, and Lopez-Claros & Mata’s ICI.

HQ4 – who cares

Innovation is so important in a country’s development and has the potential to improve quality of life across the board. The potential impact of our research and approach may be useful to government officials in developing countries, as well as investors across the world as they look to build a global marketplace.

SLIDE 3

On of the left-hand side, we have a brief literature survey, summarizing how innovation is currently quantified. On the right, we summarize our approach.

Q2: current practice

Since innovation is intangible with direct and indirect relationships to a wide array of concepts, there are many interpretations of how to quantify it. Here are a a few examples. Innovation can be quantified through a country’s cultural economy, or through combining predictors into a synthetic variable to avoid collinearity, or through using a fuzzy ranking instead of an absolute value ranking.

However, there are also limitations associated with these studies. From a data perspective, the data may be a bit outdated and won’t really show the impact of things like big tech, or is confined to a specific region. The fuzzy-set ranking can help to explain the possible differences between low- and high-income countries, but it may be difficult to identify the threshold.

Q3: our approach

What is new in our approach compared to how innovation is currently quantified is that we will be incorporating a unique combination of datasets. We are looking at both creative factors, like film and music, and economically-significant measures, like patents, allowing us to look at innovation from a more holistic view. Once we have the data, we will be performing regression and graph analysis to compute an innovation index, with the intention creating effective visualizations to communicate our results.

We will be successful because we are leveraging previous studies to not only narrow our focus to start with creative factors, but in starting with creativity, we will be able to mitigate the impact of economic factors on developing nations.

SLIDE 4

HQ8: the timeline

Our entire project will take about seven weeks, excluding the proposal period. There are four main components of our project: activities associated with starting this project, the data component, the analysis and visualization component, and the written materials for the project. We have an array of activities in each main component and have also included the main team members responsible for each activity.

HQ7: the cost

The financial cost of obtaining the data, performing the analysis, creating the models, and designing the visualizations are negligible at this time.

HQ9: progress/success

There are three main checkpoints for process and success: first, in terms of building and validating the innovation index relative to creativity against existing research; second, the interactive visualization showcasing our findings; and third, the completed report and presentation