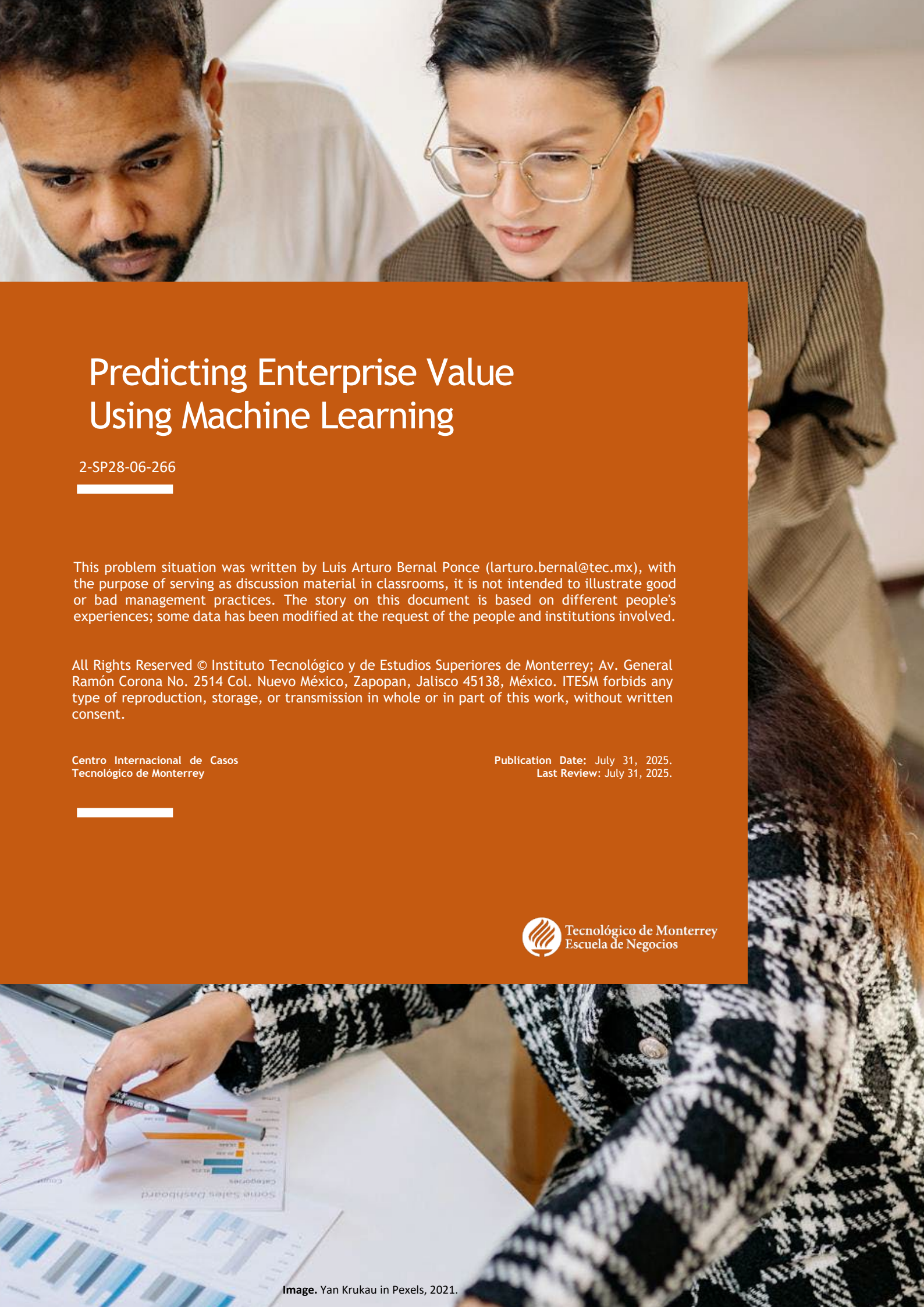


A man and a woman are looking at a document. The man is on the left, wearing a white shirt, and the woman is on the right, wearing a brown blazer and glasses. They are both looking down at a document that is partially visible at the bottom of the page. The background is a solid orange color.

Predicting Enterprise Value Using Machine Learning

2-SP28-06-266

This problem situation was written by Luis Arturo Bernal Ponce (larturo.bernal@tec.mx), with the purpose of serving as discussion material in classrooms, it is not intended to illustrate good or bad management practices. The story on this document is based on different people's experiences; some data has been modified at the request of the people and institutions involved.

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The Company

OYZ Capital is an investment banking firm based in Santiago, Chile, specializing in mergers and acquisitions (M&A), corporate debt issuance, and strategic advisory services for mid-sized companies across Latin America. Since its founding in 2010, the firm has advised on over 150 transactions in diverse sectors such as manufacturing, technology, financial services, and consumer goods.

One of the most in-demand services from its clients is the valuation of private companies, an essential activity in negotiations, financing processes, restructurings, and strategic analysis. OYZ Capital has a team of financial analysts who apply traditional methods such as discounted cash flow (DCF), market multiples, and comparable transactions.

The Problem

In a recent executive committee meeting, the CFO of OYZ Capital expressed concern over the efficiency of current valuation models, especially when it is necessary to quickly estimate the fair value of dozens of companies for screening or sector comparison purposes. As the CFO stated:

“Our current models are accurate, but not scalable enough. Each analysis takes days, even weeks, and sometimes assumptions change midway through the process. What if we had an automated model that could estimate a company’s fair value based on multiple historical, sectoral, and financial indicators in minutes?”

The firm’s advanced analytics team then proposed a pilot project to incorporate machine learning models capable of predicting a company’s value (enterprise value or equity value), using historical, open-access, internal, and sectoral data sources.

Image. The company wants to incorporate machine learning models.



Source. Meta AI, 2025.

Required Model

The pilot team must build a model that can automatically estimate the market value of a company based on financial historical data such as sales, EBITDA, total assets, and debt; qualitative variables such as industry, country, and company size; observed multiples from other transactions; and macroeconomic data such as interest rates, projected economic growth, or country risk.

The model should be able to adapt to different sectors, detect nonlinear patterns, and provide predictions with a certain degree of interpretability. In addition, the team is expected to conduct rigorous data cleaning, select and justify the machine learning algorithms used, choose appropriate regression performance metrics, and compare the results of the automated model against the traditional methods currently employed by the firm.

The executive committee of OYZ Capital expects a functional version of the model to be presented within three weeks. The pilot team must use the current historical databases to demonstrate the model's accuracy and predictive power. If successful, it will be integrated into the standard workflow for screening and pre-valuation processes.

Datasets

For this project, the team has access to a simulated historical database containing financial and sectoral information from more than 1,500 Latin American companies, the data set data.xlsx, including both listed and private firms with previously estimated valuations. Inside the data set there is a description of each variable.

See DataBase [HERE](#).