M9L9. Lesson Learned

Slide #1

Slide #2

Learning from iBuying Case

- Zillow Group collected data on ~110 million homes across the US
- iBuying incorporated graphic technologies into their pricing methods
- Zillow Offers deployed pricing analysts to double-check the computer-generated numbers

Zillow Group and Opendoor were competent and prepared to launch their iBuying businesses, respectively.

The online real estate service providers had spent 10 years polishing their fundamental home pricing algorithms used by millions of customers.

Zillow Group collected property data on roughly 110 million homes across the United States.

To fine tune customized offers, iBuying Services incorporated new graphic technologies.

Zillow offers even deployed 100 pricing analysts to double-check the computer-generated price numbers.

Slide #3

Learning from iBuying Case

Root Causes

The failure of the algorithms can be attributed to:

- Highly unpredictable short-term fluctuations of home prices
- Inadequate adaptation to changes in supply chains
- Zilllow's decision to retool the algorithms against analyst recommendations

Zillow management and staff's reasoning about the failure appeared to be logical.

To summarize key causes, one, the short-term fluctuations of home prices are highly unpredictable.

Two, rapid changes in labor and materials supply chain are not adequately addressed by the pricing method.

And three, the company overruled analysts by retooling the algorithms.

From a technical perspective, real estate experts explain that the complexity of the housing market makes it difficult to predict home prices months in advance.

Data science faces difficulties in accurately incorporating some time sensitive factors impacting a home's value into pricing algorithms.

Slide #5

Learning from iBuying Case

Limitations of Data Analytics Driven Business

- Home prices are highly sensitive to location.
- Local market conditions such as supply and demand dynamics play a crucial role.
- Population growth or economic development tend to increase prices
- Declining industries or limited growth may see stagnant or decreasing value.

Home prices are highly sensitive to locations due to a multitude of factors.

Local market conditions, such as supply and demand dynamics, play a crucial role.

Regions experiencing population growth or economic development tend to have escalating prices, while areas with declining industries or limited growth may see stagnant or decreasing values.

iBuying service providers must develop and keep improving multiple localized pricing models, making it expensive to expand business nationally.

Slide #6

Learning from iBuying Case

Limitations of Data Analytics Driven Business

The unusual fluctuations and unprecedented market dynamics, computation analytics need real-time data feeds, generated dependent on the system, to continuously update algorithms.

Data-driven systems trained with historical data can predict future prices based on repeatable patterns and correlations captured by computing powers.

To address unusual fluctuations and unprecedented market dynamics, computation analytics need real-time data feeds generated dependent on the system to continuously update algorithms.

It's reasonable to assume that those challenges are eventually resolvable as data science advances and computing power develops.

However, many businesses proved that a thoughtfully developed business model can be successful before its computer-driven system becomes perfect.