CASE STUDY

Improving Decisions: Using Big Data to support property development and sales

The US real estate business is a growing and vibrant industry, with over 200,000 residential brokerage firms and 35,000 commercial firms. The industry is worth an impressive $235 billion per year in revenue!

Across the hundreds of agencies and the major online search platforms across the US, there are some exciting opportunities which can be unlocked through detailed analysis of all this data. This data includes information about specific neighbourhoods, property lots sizes, numbers of bedrooms, utility costs, property market valuations and average cost of living.

Our client is a growing US house building firm. The business manages its own property sales which has always been a challenge competing with established realtors.

The firm was already successful but lacked the access to the kind of big data being used by competitors in the marketplace.

Whilst most of the firms projects were very successful, a number of previous projects had not delivered the revenue the firm expected.

All of this information is invaluable to realtors looking to provide advice to clients looking for properties, and for builders developing new housing estates where the data is able to support decision making around the best properties to build in a particular area to maximise yield from each development.

At Loginworks we bring together colleagues with years of experience and knowledge to develop and deliver valuable insights through big data analytics to support effective management decision making.

A Significant Challenge

Our client, a large property developer and realtor had recognised the potential benefit of big data analysis to support both the development and the retail side of the business. They were keen to unlock the potential of big data to make more effective decisions about what type of property to build in a specific area to meet likely customer demand.

If successful, the business expected to see an increase in profitability and a much improved return on investment.

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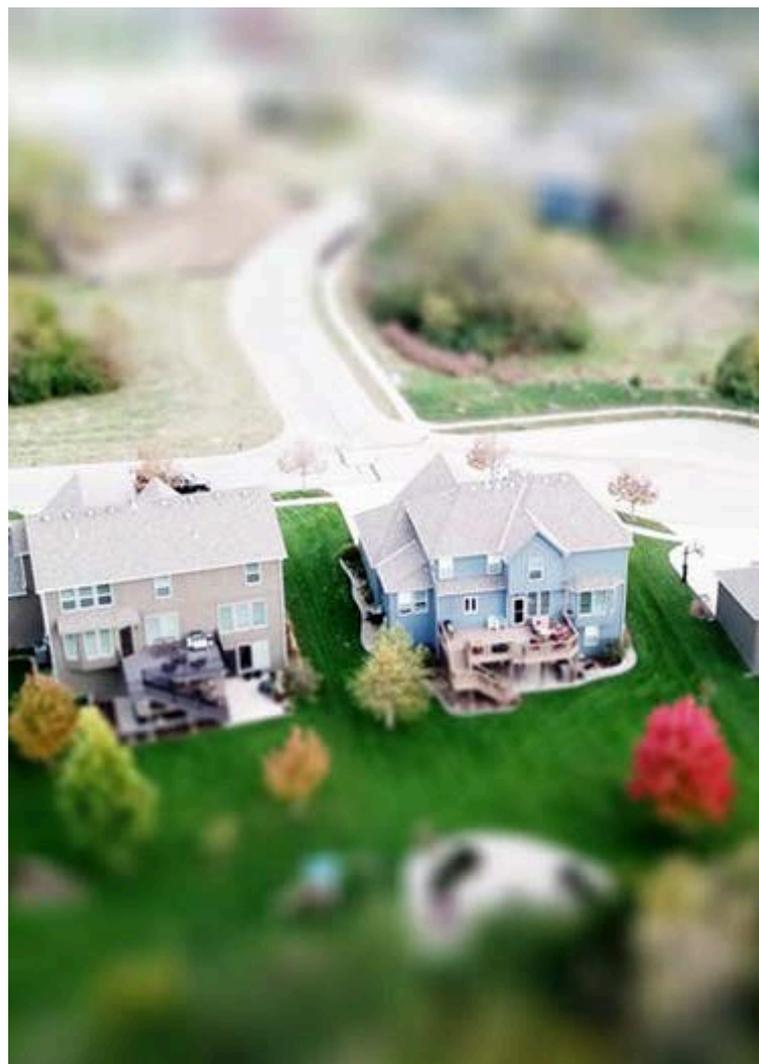
A Strategic Approach

Our projects all begin with data collection. Good quality data is essential for the construction of meaningful data analytics. The data that we used for this project is all information which is publicly available, but not brought together in a way which provides quick interpretation and analysis of different factors.

Using data scraping techniques we are able to pull this data together to produce a detailed spreadsheet with numerous columns of data.

> *"Big data has changed the way we work, ensuring we can make much more effective and informed decisions about the types of properties to build to meet likely consumer demand for each of our development sites. In future we will also be able to use this data before purchasing any land"*

Because our client was keen to explore both development data and retail data we had to establish which data sets were most relevant for each data analytic. We were also able to compare purchase and rental data to help our client to assess the potential of developing properties for the lettings market as a potential opportunity for business diversification.

Once we have completed this level of data analysis we were then able to process the three different data sets to create visualisations for property development, property sales and property rentals.

As we process this data we are able to explore the interrelationships between all the data that we have collected to produce a dashboard where different factors can be compared. This makes it possible to choose specific locations and development sites, or

specific properties, to identify the most likely consumers and the best fit with the local neighbourhood, directly informing the design of individual buildings and larger estates, this helping the business to make informed and accurate decisions.

A Satisfying Solution

The dashboard we developed is able to assess selected sites based on a range of complex data collated from a vast array of sources.

The dashboard firstly provides information about the most effective use of a particular plot of land based on data about neighbouring properties and the local area. It is then possible to assess information about the potential retail market for different types of property in the neighbourhood based on online search data and property valuation and mortgage data which is collated through the datasets. This can also be repeated using rental market data.

The visualization of this data is designed so that the key information is presented in an easy to understand format, ideal for our client to use to make decisions during senior management group meetings.

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A Series of Substantial Benefits

The availability of the data we have analysed and developed into detailed visualisations has changed the way the business works. No longer do the senior management group rely on anecdotal evidence and experience alone, but also now make decisions based on detailed analysis.

This has given the business confidence to expand their activity into new neighbourhoods where they previously lacked insight and data to develop new sites and to maximise the yield that can be generated from sites that might have been difficult to develop previously.

Results

- 15% improvement in sales values
- 27% improvement in return on investment
- More effective planning for each site which maximises the number of properties
- The opportunity to now look at new sites where a lack of information was a limiting factor in the past.