



CASE STUDY PRE-ASSESSMENT

A PRE-ASSESSMENT OF A SOFTWARE PRODUCT COMPANY

BACKGROUND

DTG Ltd.¹ is a small company that has been around for 5 years building a product based on a set of algorithms to quickly and cheaply analyse huge amounts of data. What makes it different from anyone else is that the data does not need to be organised in any special way (like, for instance, a business intelligence engine where you need significant amounts of specialist technical knowledge to make sense of the data before you can start drilling down and obtaining meaningful data.

DTG initially had some success in the financial and retail sector by using their product to detect fraud, but has recently concentrated on Customer Insight to show the versatility of their technology.

XYZ Capital asked Pantheon Management in the first instance to investigate whether the technology was unique enough to be a viable investment before proceeding to a more detailed discovery assessment.

THE ENGAGEMENT

The initial engagement was 3 days with a 7 day due diligence exercise to follow should the first be successful.

The first part of the engagement was research into similar technologies and applications. The technology on the face of it looked interesting although it was quickly evident that DTG were not alone in the Customer Insight space, with some large players making significant inroads with the large international retailers.

¹ This case study is a real Pantheon engagement but all names of companies in question have been modified.



Therefore, the initial research had to concentrate on the technology itself. Data discovery algorithms are complex and rare, since most companies take the view that the results are not verifiable and can produce misleading results. Once a list of possible equivalent products was made, a list of outstanding questions was compiled to bring into the face-to-face meeting.

THE MEETING

The Pantheon interview assessment consisted of an ex-CTO and a retail software specialist. The meeting itself took place in XYZ Ltd. offices in central London and lasted 3 hours during which many aspects of the product were discussed. The nature of the algorithms was not up for discussion as no formal agreement had been reached between DTG and XYZ at this early stage of discovery.

DTG gave a full demo of their product, showed the main features of the retail solution and the fraud detection.

THE FINDINGS

DTG maintained that their technology was unique in that it could inexpensively target clients with large transaction volumes at a price which the competitors could not match and therefore could take advantage of a significant gap in the market for small and medium-sized retailers.

The findings were as follows:

1. There is indeed a gap in the market for small and medium-sized retailers. All the main players (Dunhumby, LMG, EYC and emnos) target the biggest players and sell their products for significantly more than is affordable by the target sector.
2. The whole technology was based on the widely used commercial database. So far, the database manufacturer has been subsidising DTG by charging them only a nominal license fee. Looking at the history of this database company, it is a strategy to help small product companies in the development stage only to significantly raise the license fee once their product is commercialised. Under these circumstances the current hope to provide a cheaper product for their target market may be at risk.
3. On further investigation, it is clear that the product resembles an existing one. However the competitor uses their own database technology, giving them a significant commercial advantage.
4. The hope to use this technology for customer insight is flawed. According to a top insight analyst, “train of thought” algorithms build on the previous assumption. The final “answer” is usually the result of several such queries and assumptions. If any one of these queries is wrong, then the answer will be incorrect and give misleading information which, in retail, could cost millions.

BOTTOM LINE

Although attractive on the surface, this product is neither innovative nor is likely to deliver on its promises. The findings were based on:

- a) An ability to quickly coordinate disparate sources of information (some based on a large network of experts)
- b) Experience of the product market and the likely pitfalls.
- c) Product architecture and best practise which can determine fundamental flaws in design or construction
- d) Recognise the difference between technology and solution. Investing in a solution is radically different from investing in a technology. Although not necessarily unprofitable, it is a good idea to know this ahead of time.

Considering the cost of failed investments, Pantheon Management can help avoid costly mistakes or provide the right information at the right time so that Private Equity companies can adjust their investment strategy early enough thereby saving millions. Having a team of experts at one's disposal for a fraction of the price it would cost to hire just one experienced CTO has been literally invaluable to our clients.