LINDSELL TRAIN

Save The Data!

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A question that we have been asking ourselves recently is: how valuable is the data that our portfolio companies amass and have available at their disposal in the general course of what they do? For most, it simply helps to inform management, leading to better decisions and more efficient deployment of resources, most obviously in relation to procurement, inventory, sales and marketing. The collection and subsequent interpretation of data to determine correlations and trends can help businesses become more efficient in an incremental way, continuing a trend well established over many years as computing has become ever more powerful. And then a few of our companies have put data collection and interpretation at the core of their business in an aim to monetise either the data itself or the insights derived from the data. Even better, can some companies go further and accumulate data whose subsequent use can raise barriers to entry or afford that business some permanent competitive advantage?

Arguably it is the sheer multitude of customer interactions recorded by large web based businesses, such as Amazon, Google, Facebook and eBay that gives this cohort just such an edge. The analysis and interpretation of such a vast quantity of data and the direct interactions those companies have with their customers allows those businesses not only to target product promotion strategies and advertising but also then to measure their effectiveness. Other companies trying to compete in the same space typically lack the critical mass and the high volume of data that is necessary to inform such strategies whereas these companies can discover patterns and correlations in the data that offer unique and valuable insights. For example, when tackling a problem, no longer is it necessary to make assumptions which would invariably be subject to prejudice or flawed intuition. Instead, with so much data available it can all be viewed objectively and often the correlations that arise can be surprising, unpredictable but relevant and more insightful. For instance, Google can 'predict' flu epidemics before they occur just from monitoring the increased volume of search requests for cold remedies and other related products and services. In this way size itself (or the quantity of the data that these large corporations yield) becomes a barrier to entry, which may help to explain the race to grow to establish scale at the expense of most other considerations (for example, Amazon is notable for prioritising growth over profits). It is then worth considering the nature of these interactions and the degree of advantage it gives these different companies when it comes to predicting and stimulating consumer behaviour. A Google interaction might be through a search inquiry, arguably even better is a Facebook one though an expressed opinion such as a 'like'. But perhaps the best of all is an eBay or Amazon interaction which is an actual recorded transaction. Whether or not this assumed ranking is correct there is no doubt that the sheer quantity and frequency of the data is important and valuable in of itself, possibly more so than the nature of the individual data points. More difficult to determine though is whether volume itself provides these companies with a permanent competitive advantage. After all, over time promotional strategies deduced from analysing data can be copied and leaked through employee defections. Perhaps even more important is the attempt to build long term dynamic customer relationships through conventional brand loyalty and a regular stream of high volume customer interactions, which over time enriches that data, keeping these companies continually ahead of others.

Of the four companies to which we refer above, we currently only own eBay. The others are all in our universe but thus far we have not been able either to fully evaluate the potential from their business models or persuade ourselves that we have been offered an adequate entry point to buy a position.

Which other companies do we own that might possess data that could help to raise barriers to entry?

Well, Reed Elsevier's most profitable division is Lexis Nexis Risk Solutions ('LNRS'), which gathers data from public sources mainly in the USA for interpretation and sale to customers to allow them to better manage risks and develop market intelligence particularly within the insurance and financial industries. Some of the data is however publically available, so arguably a competitor could do the same as it does. Yet a first mover advantage is important here, not only in learning how best to interpret and analyse the data but also in building binding relationships with the end customers. In addition many clients, especially insurance companies, recognising that manipulating data is not their core competence, have chosen to share

with LNRS the relevant data they collect, enriching LNRS's central database and providing a higher barrier for would-be competitors. As the product's efficacy is improved with more customer data this network effect itself helps to reinforce that barrier to entry. A testament of its competitive position is the division's sustained high margins, averaging 40% in line with the other main company in this business in the US, Verisk (which does not really compete but instead specialises in different niche areas from LNRS) and Daily Mail & General Trust's RMS, that specialises in catastrophe insurance risks.

Pearson and Meiko Network are both educational companies. The former sells educational content and services globally, to universities, schools, language training centres and vocational specialists whereas the latter runs and franchises extracurricular classrooms in Japan. Both use data to inform and improve teaching methods and ultimately the results achieved by pupils using their services. The data is however owned by the educational establishments and though Pearson does own some schools and universities most of its business is selling products and services. Yet even when Pearson does not own the data it has use of it to optimise the efficacy of its products and services and through that use understands the relevance of it having devised tools to analyse it, something few putative competitors can boast. Thus the data is not readily available to others (unless a competitor is specifically supplied it by an educational establishment), creating a barrier to entry. As Meiko runs its schools it owns the data. But it runs a largely analogue business model still today and is way behind compared to Pearson that has been striving to digitalise its business (currently 60% of sales, up from 37% seven years ago), a process that itself is informed and enhanced by the data it collects. Both businesses are large participants in the context of the size of the other companies in the industry even if market shares are low in what today remains a fragmented market. The challenge for both is to work out how best to use this valuable data to improve teaching outcomes. For instance, Pearson's digital monitoring can analyse a student's ongoing assessments, which indicates to the teacher when aspects of a subject have not been fully understood. This allows the teacher to take remedial action far sooner than in a conventional classroom. In this way the data allows tuition to be personalised. Although digital techniques today are more effective with quantitative subjects such as maths and the sciences, even in subjective disciplines such as English, technology is making strides. For instance once an examiner has marked say 100 essays, Pearson designed software can pick up the key words from those scripts in order to mark and grade 10,000 more, saving an inordinate amount of man hours and cost.

Intuit, Obic Business Consultants ('OBC') and Sage all provide business application software to small businesses in the US, Japan and Europe respectively. In the future the software will be accessed on line from the cloud. Intuit is furthest advanced in this change. Of course, once delivered from the cloud all data is stored on the host company's systems. As with Pearson the data is not owned by Intuit but it alone has privileged access, leading to the potential to improve and enhance its products. And then Intuit should be able to monetise some of the inferences it draws from the data in order to generate a secondary source of revenue. For instance Intuit's payroll services are so embedded in US companies that its customers' sales represent 20% of US GDP. It's easy to conceive that trends derived from that data could be useful to a number of users such as the government or financial companies. Intuit's other business is to provide US consumers with online tax filing software that today accounts for 20% of all US tax returns. In completing these returns customers have multiple interactions with the company which, when analysed, are being used to improve product design. If successful, improved customer satisfaction should lead to better customer acquisition, retention and market share.

The secondary sale of data is also earning important revenues for the two exchanges we own - the London Stock Exchange ('LSE') and the Japan Exchange Group ('JPX'). Not only do they generate proprietary data, package it and license it as part of their index business, but in addition both companies sell raw data derived from all aspects of market activity. Both companies are quasi-monopolies capturing the majority of trading in securities in the UK and Japan respectively. Although other competing trading platforms exist, especially for UK securities where the LSE's market share is c.60%, to our knowledge those platforms do not or are unable to sell the data as the legitimate source is always regarded as the traditional exchange.

Additionally, Thomson Reuters is data rich. With Reuters, data is generated in the same way as the exchanges above and the company also competes with Reed Elsevier in risk solutions. Like with Reed, its legal publications business ('Westlaw') has value in the sheer scale of its database built on a multiyear heritage. That provides a significant barrier to entry as do the cross referencing tools and increased utility to exploit the database now available to users through the move to full digitalisation of the content over the last few years.

If it is right that data derived from actual sales transactions is more valuable than data derived from other interactions then payments processors are well positioned. For instance eBay's Paypal franchise has 143m users worldwide. From a plethora of real transactions processors can make inferences about consumer behaviour, whether or not they retain this information for their own use (as eBay does) or sell that data to third parties to extract the value from it (as some credit card companies would likely do). Other companies we own also generate transaction data for their own use: Juventus, Celtic, Tsutsumi Jewelry, International Speedway, Aderans, Burberry and Hargreaves Lansdown. For example, when we met with Burberry recently, they told us that customer data is used to make decisions about shifting stock from low to high selling areas - so if pink is selling better in Germany than France some pink stock will be moved to Germany -and this has tangibly improved the gross margin and will become more important to merchandising decisions in the future. Of course all these companies have the benefit of direct interaction with their customers but a number of our companies don't. Will Unilever, Diageo and Kao in time feel disadvantaged by the lack of data on end sales on account of their reliance on distribution chains over which they have little control?

Increasingly companies will look at ways of moving from indirect to direct interaction with their customers. For instance, World Wrestling Entertainment ('WWE') has just introduced its own internet based network channel that will provide it with a rich data flow on customer usage and preferences, information that they previously sourced from third parties or surveys. Nintendo now has increasing data on its customers and how they interact with their products. Customers now register when they buy hardware, on-line connections allow the company to gather data on how and when they play software whilst GPS data reveals the locations of use for handheld hardware and software. This more direct interaction should help Nintendo enhance and improve the game experience and give it a competitive advantage against other competing third party suppliers of game software.

We recognise that over the last half century corporate value has shifted from physical infrastructure such as land and capital equipment to intangibles such as intellectual property and patents. That value is now expanding to data, which is becoming a significant corporate asset, a vital economic input and the foundation of new business models. Our working thesis today suggests that proprietary data commands the highest value closely followed by data not readily accessible to others, then data based on transactions and finally data based on a whole variety of other interactions. Tools to interpret data will command value in addition but perhaps most valuable of all is simply the ability to generate and store vast quantities of data as its uses are multiplying and developing all the time. Like content, this data has material hidden value made more potent by the high margins that companies like Reed, Google, Intuit and the exchanges earn in monetising this asset.

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Sources: Reed ; Pearson; Intuit; London Stock Exchange; PayPal/eBay

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