INSIGHTS

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THE END OF BANKING

Is Data Driving the End of Banking?

WELLINGTON
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I started my career at IBM in the 1980's in the banking Branch in Toronto, Canada. One of my first jobs was to help sell and then install a new IBM 4341 mainframe computer and one of the key features of this system was one thousand megabytes of Direct Access Storage Device or DASD. This storage was revolutionary in two ways. First it was direct access, this was as opposed to the other forms of accessing date like tape and card readers which required manual intervention and secondly it was one thousand megabytes, which was a massive amount of storage for at time. Notice also that we called it one thousand megabytes and not one gigabyte, I'm guessing one thousand megabytes sounded more impressive in those days. And the cost of this amazing technology was approximately $120,000 USD.

COST OF 1,000 MB

1984: $120,000
2019: 2.5¢

Figure 1: IBM 4341 Mainframe computer with one thousand megabytes of IBM 3370 DASD

Storage was so expensive in those days that we were constantly looking for ways to reduce the amount of data we stored and of course one of the things we did was store the year component of any date as only two digits as opposed to the full four digits. If we had used 4 digits many of our business cases would have been blown out of the water because we would have needed more DASD.

Flash forward to today. My son likes to build PC's from the ground up. He recently built a new PC and he purchased eight terabytes of storage for his new computer at a cost of around $180, which works out to around 2.5¢ for one thousand megabytes.

This dramatic drop in the cost of data has had profound effects on how we do business. If we look at the top 10 corporations by market capitalization in December of 2009 (Figure 2) we can see that 4 of the top 10 were petroleum or mining companies, 3 were banks, 2 were technology manufactures and 1 was a retailer. In other words, they were all traditional companies that manufacture or sold goods or provided financial services. A savvy businessperson from the early 1900's would understand all of these businesses, with the possible exception of MicroSoft and Apple.

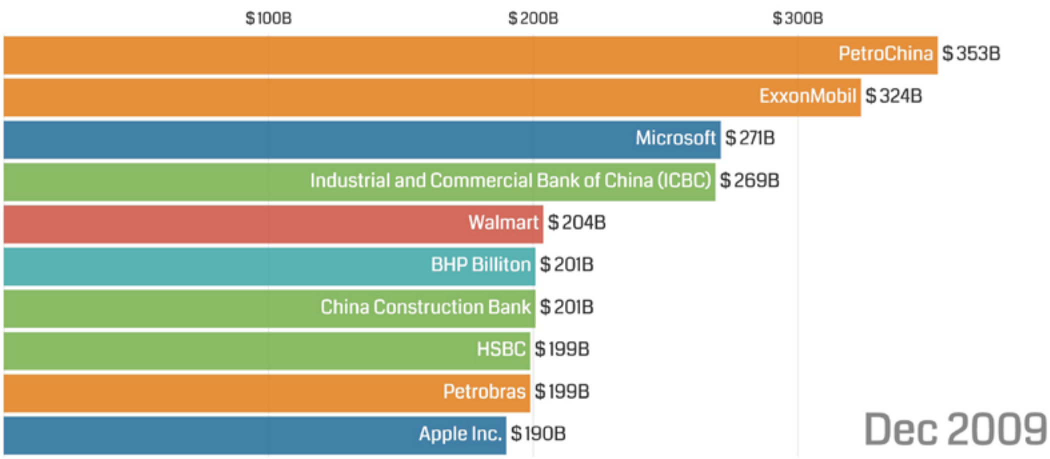

Figure 2: Top 10 Corporations by Market Capitalization – December 2009

If we look at that same list today (Figure 3), our savvy business friend from the early 1900's would easily grasp Berkshire Hathaway, Johnson & Johnson and Exxon but the other 7 would be a mystery. Very little of the revenue of these companies comes from the products they produce, most of it comes from the packaging and reselling of data. The dramatic drop in the cost of data has enable these data companies to emerge as the most valuable companies in the world. You should also note that there are no financial services companies on this list, however, that does not mean that financial services are not available from these companies.

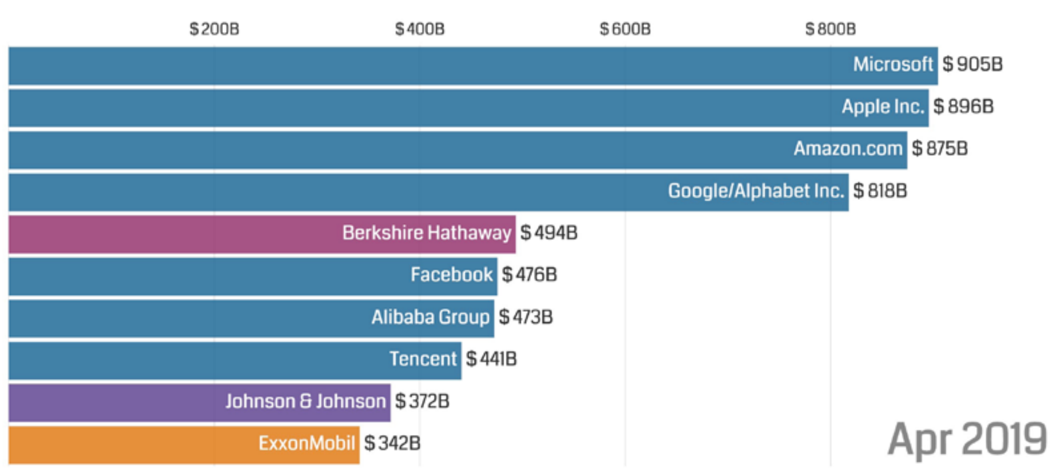

Figure 3: Top 10 Corporations by Market Capitalization – April 2019

If we look at these disrupter companies, we see 6 of the seven are heavily into financial services (Figure 4). Alibaba's Ant Financial and Tencent's WeBank are Chinese based but in the past year have attempted to launch, successfully launched or are in the planning phase to launch financial service offerings in the U.S., Europe, the U.K., and Australia.

Service	Apple	Amazon	Google	Facebook	Alibaba	Tencent
Consumer Payments	✅	✅	✅	✅	✅	✅
Small Business Payments	✅	✅	✅	✅	✅	✅
Retail Deposits	✅	✅	✅	✅	✅	✅
Wholesale Payments	✅	✅	✅	✅	✅	✅
Insurance	?	?	?	?	✅	✅
Consumer Wealth Management	?	?	?	?	✅	✅
Consumer Lending	?	?	?	?	✅	✅
Corporate Lending	?	?	?	?	?	✅
Corporate Deposits	?	?	?	?	✅	?
Mortgages	?	?	?	?	?	?
Private Banking	?	?	?	?	✅	?
Digital Currency	?	?	?	✅	?	?

Figure 4: Banking and Financial Services offered by the Data Disrupters

Like Apple decimated the record label companies, Netflix disrupted the cable companies, Amazon devastated the brick and mortar retailers and Uber upended the taxi industry, these disruptors now have their sights set on the financial services sector, there is simply too much profit for them to ignore.

In just one month, November 2019; Amazon announced the partnership with Paymentus, which will soon allow you to track and pay bills with Alexa, JP Morgan announced it will partner with Amazon & Airbnb to make them look more like banks, and Citibank and Google announce a Co-branding strategy.

The financial services industry in North America, Europe and Australia have enjoyed a long period of low innovation. We've become an industry of fast followers. Innovation has consisted of company A announcing some new product and two to four months later competitors launch a look-a-like product with some tweaked features to make it look better. These new competitors don't play by these rules.

How do Financial Services respond? The good news is that recent regulations like BCBS 239 have started many financial services firms, specifically banks, down the road of understanding their data better. But as I talk with executives on the business side of these Financial companies, I hear a common theme. “We’ve spent hundreds of millions on data projects like data lakes, data lineage, data governance, and master data management but other than the regulatory “tick” mark I don’t see any benefit. When will I finally have a full 360-degree view of my customer or get rid of that ugly KYC process”?

You need to become Amazon faster than Amazon becomes you.

Innovation: Acceleration vs. Innovation

Acceleration: Requirements known, Low Risk

Incubation: Concept Known, Requirements Vague, High Risk

Innovation is the key. If we divide innovation into two aspects, Acceleration and Innovation; Acceleration is a program or transformation that is well understood and at the macro level is low risk, that is, you will do what is necessary to make it successful. For example, digitizing your multiple KYC processes into one process and eliminating all paper is an Accelerator project. Internally it may be considered high risk because of complexities but it will not be allowed to fail. On the other hand, Innovation projects are concepts where the requirements are not well known. Becoming Amazon faster than Amazon becomes us, is a concept and we don’t know exactly what that looks like. We will logically break this into sub projects some of which will totally fail.

Acceleration projects are absolutely critical to keep pace with your traditional competitor but will fall well short when competing with digital disruptors.

For Canadian FI's there are six incubation projects that you need to be launching.

1. **Data White Space:** What data don't you have that would give you significant insight? Especially in understanding your clients. How or from whom do you get this data? How do you ingest it? How do you analyze it and then take action?

2. **Partnering Opportunities:** What can Google, Amazon, Facebook, bring to your offering and what can you offer back to them. In the Citi / Google Co-branding announcement, Citi explains that although they touch 100 million clients many of those are credit cards only. Google provides Citi with the ability to expand their reach geographically, deepen their wallet penetration and provides an efficient way to bring in new clients, especially younger clients.

3. **New Frontiers:** What are the new frontiers that you need to participate in? Many Fintech's are turning their client relationships upside down. One example is the Democratization of Financial Advice, that is, making financial advice available to all regardless of your income or net worth and taking full control of your finances to help you meet your objectives. In the US a company call Wealth Front (www.wealthfront.com) is using technology to achieve this objective. They will take care of all your banking and investments based on providing them financial and billing information, and a financial goal set by you. Your paycheck gets deposited in a Wealth Front FDIC insured account and they will automatically pay all your bills, and will put the remaining money into the right investment accounts based on goals. (e.g. buying a car, buying a house, saving for college, retirement, etc.)

4. **New Geographies:** The Canadian market is relatively small with a few large, well established competitors, this makes it challenging to pick up market share in the Canadian space. However, other markets, e.g. US & China are much larger and have many competitors. Expanding to other geographies is complicated but necessary especially in light of the disrupters.

5. **Technology:** Are you fast following or leading? I believe the Canadian financial landscape has enabled our financial service companies to be fast followers. Innovation by any one Canadian FI is quickly copied by others. In the fall of 2019 CITI announced that it is hiring 2,500 coders in 2020. JP Morgan and Goldman Sachs have also announced significant increases in their investment in technology in response to the threats presented by the digital disruptors. AI, and Machine Learning in particular have the capability to significantly improve many areas of the banks operations which can reduce cost while improve client service, a rare combination.

6. **Data and AI Ethics – This final area for incubation is just emerging as we write this article.** The emergence is being driven by the exposure of bias built into the AI systems. Amazon was using AI to help in its hiring process until it was discovered that the AI was biased against women or people involved in women's issues. Similarly, Apples new Apple Card was also shown to be biased against women and giving them lower credit limits compared to equally qualified males. AI has tremendous potential but every story like the ones above rightfully erode our trust in the technology. For AI to succeed we need to figure out how to ensure there is no bias in the data it uses, or the algorithms built into the AI and we need to monitor the AI to ensure no bias creeps in as it learns.

The good news for Canadian FI's is that there is still a tremendous amount of trust in our financial institutions and their ability to safely handle our banking and broader financial needs. We have time to address these challenges, but the scope of technical and cultural change will take years to implement. The best time to start was two years ago but the second-best time to start is now.

ABOUT THE AUTHOR

Brian McConnell
President/Founder

Brian has built Wellington on a foundation of integrity, professionalism and passion for building and managing team to solve complex business problems. In helping large and medium size enterprises effect change over the past 25 years, Brian believes Wellington thrives when it successfully completes projects and, at the same time, helps to strengthen a client's people and organization. It is an approach that saw Wellington rank as one of Profit Magazine's HOT 50 companies and landed them on the Profit 500 in 2015 and 2016.

ABOUT WELLINGTON

At Wellington, we understand that most business transformations fail. Our business model is built with one single purpose: The successful implementation of your strategy.

We pride ourselves on having a long list of clients that understand that first and foremost we are there to make them successful as they implement their strategies and to prepare them to work without us when the implementation is done.

For more information e-mail us at Info@WellingtonCG.com

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Consulting Group

C 416.564.5330 O 416.901.3393 | info@wellingtoncg.com | wellingtoncg.com