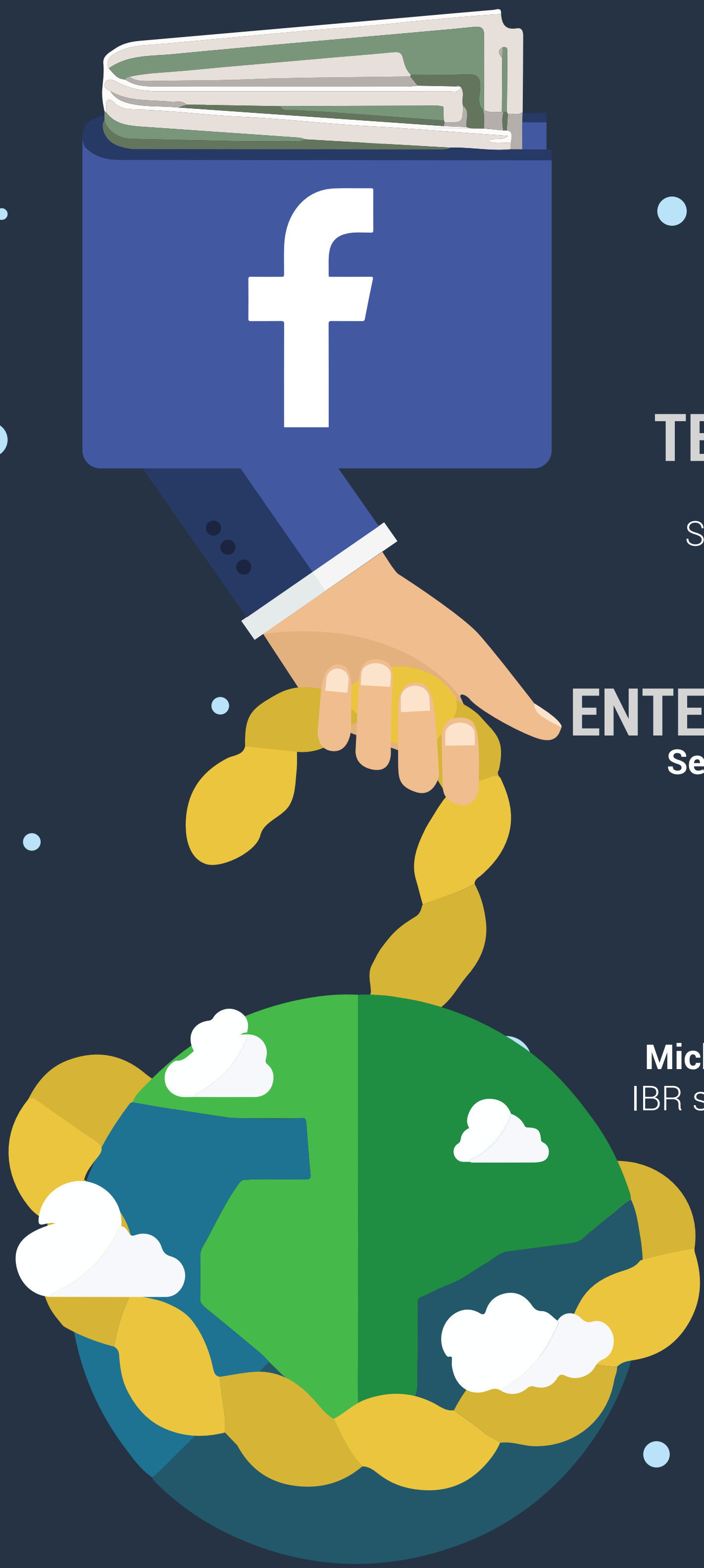
IVEY BUSINESS REVIEW

SHOULD WECHAT ABOUT FACEBOOK'S NEW WALLET?

Bringing the world closer through the Facebook eWallet **| P. 30**



THE IVEY HBA STUDENT BUSINESS STRATEGY MAGAZINE

Editorial Board

Ivey Business Review is an undergraduate business strategy publication conceived, designed, and managed exclusively by students at the Ivey Business School. Its mission is to provide a forum for tomorrow's business leaders to develop, voice, and discuss their thoughts on today's business strategies, threats, and opportunities. Articles are written by undergraduate students in the Ivey HBA program, and have been created specifically for the publication after several months of intense collaboration between student writers and members of the Editorial Board. Additionally, the publication's blog platform allows students and young alumni to further the *IBR* mission year-round.

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Note from the Editors:

"Bracing For New Tides"

As select industries become mature and others are disrupted, businesses are faced with the challenge of thriving in rapidly changing environments. This issue of *Ivey Business Review* focuses on the bold strategies that mature giants and high-growth businesses must deploy in order to differentiate themselves in uncertain times. The articles ahead outline feasible and tangible solutions to real business problems, and offer fresh perspectives on ways for those firms to stay ahead.

Our cover article discusses how a social media giant can use the growing fintech space to continue connecting society. Meanwhile, our Spotify article discusses a unique way that the company can apply blockchain technology to streamline their operations. As well, the piece on IBM discusses a new channel for the company to monetize its AI system, Watson.

However, these strategic solutions are not limited to technological applications. We learn how retail giant Costco can battle increasing competition from e-commerce superpower Amazon.

On the theme of innovation, the *Ivey Business Review* also focused on entrepreneurship and the disruption that it can bring to an industry. Our interviews with Michael Hyatt and Mike Katchen reveal unique perspectives into the journey of entrepreneurship, and details the advice these founders have for aspiring entrepreneurs. We hope you enjoy and take inspiration from the ideas presented by us and our team.

Sincerely,

Dan Wei & Joyce Chan

Editor-in-Chief & Publisher

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Organizations that embrace thought leadership position themselves well for the future. Thought leadership runs to the very core of *Ivey Business Review's* mission. We thank our sponsors for their continued support as we execute this critical mission.

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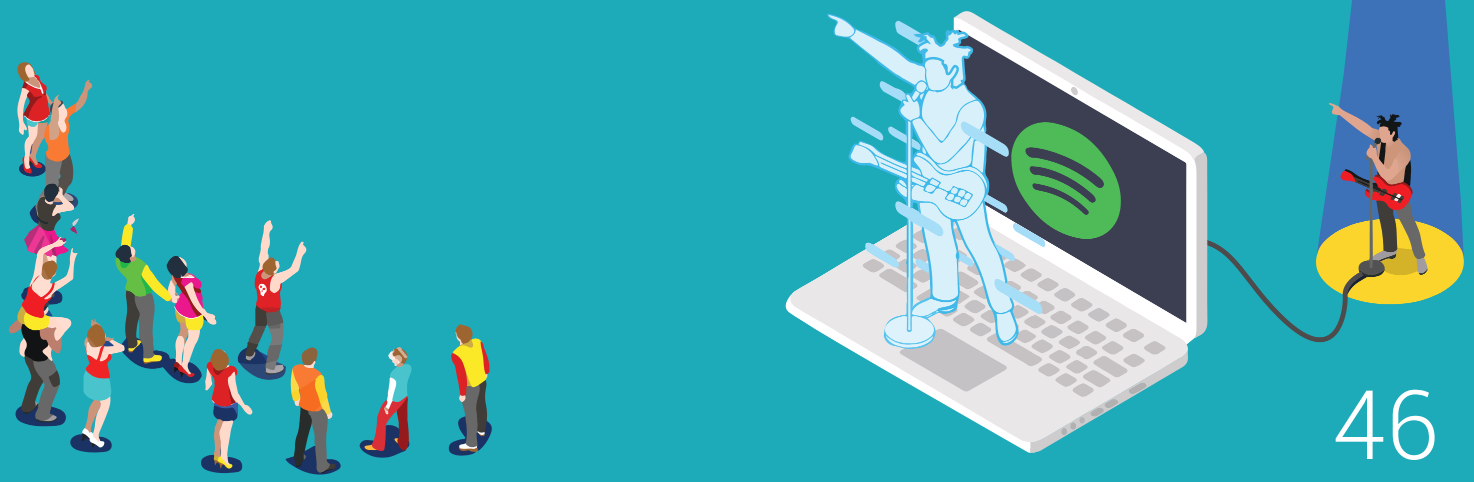

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amazon

CASHIER
SALE
NEW
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CINEPLEX

Interview: Michael Hyatt

Founder and Chairman of BlueCat, "Dragon" on Next Gen Den

IBR: Your transition into entrepreneurship came after four years of studying science at Western University. What motivated you to make such a bold decision?

MH: I did a four-year Biochemistry degree at Western and I remember giving my fourth-year thesis presentation to my professors. At the end of it, they looked at me, stunned, and said, "Mr. Hyatt, you should go sell cars." I realized at that point that continuing with sciences just wasn't for me. More than that, it was a recession, so getting a job wasn't going to be easy.

My motivation was simple — I just wanted to have my own money, my own independence. I wanted to make it in life. There was no technology community at that time, or proven methodologies on how to create a start-up. Entrepreneurship was a journey that wasn't well accepted as a career path. I thought that if I could remotely make it as an entrepreneur, that would be more meaningful to me than working a day job.

IBR: How do you think university plays a role in the development of an entrepreneur?

MH: I think the most important thing about university is that it's the first time in your life where you have to live on your own and make something of yourself. You learn to build relationships with other students and professors, run on a schedule, and deliver on time. I don't believe that specific majors matter as much as the university experience at large. For many, it's the first time you're really an adult.

When I went to school from 1992-96, there was no Internet. From an information perspective, there was almost a bubble around the campus, and you lived in this bubble. This relative isolation prepares you because it's your first time away from you parents. But the real world is tougher. In the real world— you sleep in, you get fired. You don't deliver, you get fired. There's no makeup exam in the real world. It's just not as protected. University's a great stepping stone, but not entirely reflective of reality.

IBR: Was there a time when you thought that you might lose it all? If so, was there anything that kept you going?

MH: There are so many times in business when things go bad. Your ability to absorb a punch is very important. When you watch the best poker players in the world, you'll notice that they don't get too excited when they win, but they also don't get too disappointed when they lose. In business, you sometimes have to divorce emotion from what's happening and just stick to the facts.

There is no problem I haven't overcome because I'm still here and the business is still growing. However, I'd be lying to say that we haven't had tremendous challenges over the years. That's part of it. You get a company the size of BlueCat and you'll realize there are not many software companies like us in Canada. That's because it's that hard to get here.

IBR: IHS Markit acquired your first business Dyadem in 2011. Not many people get to say that they were able to scale up a company and subsequently sell it. How did you feel about this whole experience?

MH: I felt great. I felt it was the right time. It was a terrific business, and it allowed me to build an even bigger business called BlueCat. It felt great to be able to share successes with the employees, investors, and management team that supported me throughout this journey. We were able to collectively share the returns of this sale, and that meant a lot to me.

I think there's a misconception that entrepreneurs should stay with their businesses at all costs. Sometimes you run your course in your business and then transact it. Then, you're enabled to start something new. That's a very natural and even important process, because sometimes someone can take your business and move it to a place better than you can yourself. Taking some profit for yourself and leaving some profit for the next person isn't a bad thing.

IBR: Do you think that interdependence is important in the business world?

MH: It takes a village to build a company. BlueCat, as good as it is, is not solely the product of mine and Richard Hyatt's goals. If you look at BlueCat today, you'd say that Michael and Richard founded something wonderful, but that's not entirely true. You'd have to acknowledge the tremendous efforts made by the current executive team that took BlueCat to the next level. I'm also very grateful for the efforts of our employees – many outwork me, which is humbling.

Another example of this dependence is when I decided to hire an external CEO to run my first company, Dyadem. I left it to him to decide what's best for the company, and in the end, he decided that selling it was the best path. Often times, it becomes difficult when the outgoing and current CEO have differing opinions. But, good leaders understand that when you hire others, you have to trust them to be effective. At the time, I was already building BlueCat with my brother, so I wasn't operationally involved in Dyadem. In the end, I trusted his decision to sell and it was a fantastic move for the company. He was right.

IBR: What are some key changes you expect to see in the technology industry in the near future?

MH: We're living in a world where exponential change is the soup du jour. I expect there to be radical change in just about everything simply because Moore's law still applies. Computing power is still doubling every 18 months and getting a lot cheaper. Artificial Intelligence (AI) is stepping up for the first time. AI is moving from narrow intelligence towards something more general.

Our future is changing exponentially due to rapid innovation in computing power. The average person thinks that we're seven to 10 years away from having autonomous cars. But we're not. We're actually a few years away, since technology is moving exponentially and not in a linear fashion. As Ray Kurzweil at Google says, and I'm paraphrasing, we think our future is like our linear past – and it's not.

Rapid innovation will also bring about the ability to make smarter decisions. We are going to add billions of people to the Internet for the first time in the near future. There are going to be hundreds of billions of connected devices all doing something for us. This creates a tremendous amount of data, all of which will go to engines that will carve out logic and decision-making effectiveness from the vast data pool.

The core message here is that our lives are going to get much better. We're going to get healthier, we're going to live longer, things are going to cost a lot less. For example, if I start making trucks autonomously driven, it's going to make things a lot cheaper, and that passes on to you, the consumer. That's a small example, but the supply chain is going to get dramatically cheaper. The same applies to the energy needed to transport those goods. Life is going to get a lot cheaper as we bring in more intelligence. Your children are going to be doing jobs that you can't imagine today – we simply do not know maybe even understand their job titles – yet.

I truly believe that the future is amazing, and that will be due to technology. I am very much an optimist about humankind. It's going to be shockingly different. In 1912, we'd look at the Titanic and say that's the world's biggest ship, no one could ever build a ship bigger than that. That's simply wrong, because the average cruise ship today is many times that size, but in 1912 you couldn't have imagined it.

We have a hard time imagining the exponential future. But it's always happened that way. You can imagine technology as evolving in an S curve. You will see innovation plateau as you reach top of the S. Then, something radical is developed and suddenly you're on top of another S curve that you did not know existed. We're about to undergo that massive shift in terms of AI and leveraging data through the Internet of Things. The future will be an exciting time.

IBR: There are many Ivey students who wish to start a business one day. What advice would you give them? What are some of the ways that they can better prepare for the world of entrepreneurship?

MH: First off, my most important piece of advice is to slow down and don't feel pressured. I feel bad for this generation because there's a tremendous and undue amount of pressure that the youth feels. You must have a very successful business by age 19 and maybe a non-profit on the side. I don't even know how they do it. What's funny, is that if you look at the most successful people in the world like Mark Zuckerberg, Bill Gates, and Elon Musk, they don't get up every day to do all those things. They do one thing very well. Mark Zuckerberg clearly does one thing well — Facebook. For a very long time, Bill Gates did one thing well — Microsoft. The same goes for Elon Musk and Tesla.

The pressure that I see young students put on themselves to be successful by doing multiple things as early as possible is a recipe for disaster. I think they need to slow down, finish their education, and work at a company for a couple of years. This way, they would meet people and make relationships. Eventually, they'll find a real problem they want to solve. Once they find that problem, then they should start their own business.

My second piece of advice is that the most important thing you can do right now is spend an enormous amount of time building relationships. You are worth as much as your relationships. You should give, you should donate, you should push, you should console, you should get involved with your relationships. You should pay for lunch, pay for coffee, connect people, give into your relationships. Invest time and money into the people you want to spend time with. That is the most important thing you can do when you're young.

IBR: How do you personally define success, in your personal careers and the entrepreneurial ventures you have taken part in?

MH: I think success should have very individual definitions based on the person you ask this question to. Money is only one dimension. I was a millionaire by 25, I lived in Richmond Hill, I had my own house, but I was unhappy. For a long time, I couldn't find my way out of this unhappiness. Money doesn't buy you happiness, but it does make life a lot easier. Money helps you out tremendously, but only in some respects.

Here's my advice: make money, but don't value it. The minute you start placing substantial value on accumulating money, you're in the wrong place psychologically. Success shouldn't be about the money you gain, but the problems you're able to solve and the personal goals you're able to achieve.

IBR: Being involved with both the Next Gen Den, and Rotman's Creative Destruction Lab, it seems like you judge a lot of promising ventures. What do you typically look for in a venture that you've typically seen results and success?

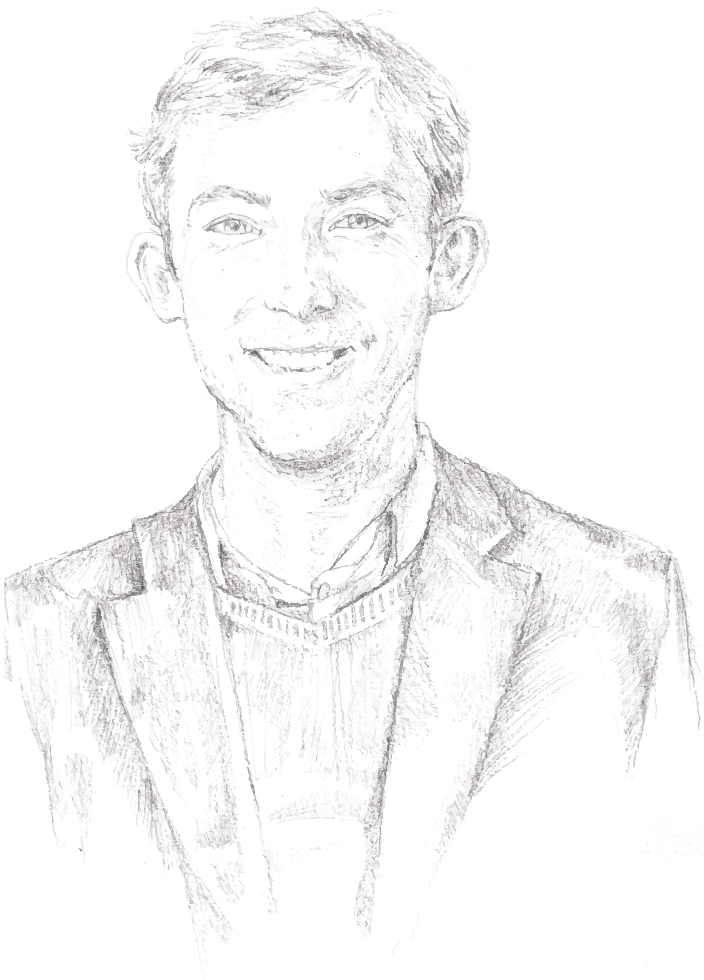
MH: I look for people who I can work with. Typically, that comes down to finding the entrepreneurs who have ambition, but also flexibility. Most of the time, the company that they're starting out with is not going to be the company they're ending with. All I'm doing is looking very carefully and asking myself, can I work with this person? Are they ambitious? Can they pivot if they have to? I have to like the general direction of the company, but the real question I have to ask when partnering with new ventures is whether or not I can work with them.

IBR: What would you like your career legacy to ultimately be?

MH: I just want to be known as the guy who built something from nothing and made a difference for our country. I truly believe that Canada is the greatest place in the world to live in and I care very much about our country and building companies here. That's why I spend a lot of time speaking across the country about entrepreneurship. I believe that we need to think very carefully about being more than just an oil and manufacturing country. We need to think about shifting our focus to becoming more involved with building technology companies that support all industries. Those new jobs will have high wages and that helps everyone. We're a relatively small population on a very big landmass and we're very spread out. That's a big disadvantage, but our advantage could come from leveraging the technology culture that has developed to create value for our country.

Interview: Mike Katchen, HBA '09

Founder and CEO of Wealthsimple



IBR: In what ways do you think your Ivey education has helped you succeed as an entrepreneur?

MK: I think that Ivey played a major role in helping me get to where I am today, and in a number of different ways.

Firstly, Ivey is really good at teaching you how to think. The Case-Method Learning encourages debates amongst your peers and colleagues when you're in school. I learned how to think and how to be confident.

Secondly, I learned what really smart peers and colleagues look like. When you're building a business, so much relies on the team you hire and the team that you work with. Ivey gave me a really good sense of what awesome colleagues look like.

Lastly, Ivey provided me with an incredible network. It's interesting to say, but I currently work with an executive coach who happens to be my entrepreneurship professor from my time at Ivey. Ron Close, HBA '81, is an incredibly close mentor and coach of mine and I wouldn't have had the chance to meet him without the world-class network provided by such an incredible school.

IBR: Do you wish that Ivey prepared you better in any way?

MK: Of course. I think Ivey has a lot of ways it can improve teaching entrepreneurship. I now work in technology, and I didn't learn anything about technology and the technology industry during my time at Ivey. I think having closer ties with the engineering department to provide students with more awareness of the amazing world of startups and innovation would be phenomenal as they are changing the landscape of every industry around the world.

You know, that might be there today, but when I went through Ivey, it was certainly not a focus. I certainly did not know how to get into that world and I kind of had to find it out on my own.

IBR: Leaving McKinsey to go into entrepreneurship must have been a difficult decision. What motivated you to do this?

MK: I've always wanted to be an entrepreneur. Both my grandfathers were entrepreneurs, and my dad was an entrepreneur - I always had a fascination with building and starting things. I never started a business before, but even at Ivey I founded clubs and the Ivey Israel Trip. I put that passion off for a while by going to McKinsey but I always knew that I wouldn't be fulfilled until I was working on a problem that I was passionate about.

IBR: You joined your friends in building 1000Memories. What is it about ancestry and memories that fascinated you?

MK: When I joined my friends in 1000Memories, they were just accepted into Y Combinator, which is now the pre-eminent start-up accelerator that everyone knows about. However, at that time, no one had heard about it. Through YCombinator, they raised some VC money, and I knew that the team was incredibly strong. I was excited about the team and I was excited about the problem.

The original problem that we tried to solve sounded morbid, but at the same time, was very powerful. Everyone in life unfortunately goes through losing their loved ones, whether they be friends or family. Having experienced that personally, I found it incredibly awkward online to memorialize them. Facebook for instance was uncomfortable. People post on there, then they like it - there was no dedicated beautiful space that captures someone's stories and someone's life. We were trying to bring that to the internet - a beautiful place for people to remember the loved ones that they lost. We found that it solved the needs of people going through tragic experiences in their lives.

At the same time, it was hard to grow a business that relied on 'death'. I was responsible for growth, and I would speak at conferences and hear feedback like:

"We love such a beautiful idea and we're so supportive of what you're trying to do, but I hope I never see you again."

Because of that, we pivoted the business based on the ways we saw people using it. We launched an app called Shoebox, that turned your phone into a photo scanner. The idea was that everyone has this box full of photos somewhere that they considered their most precious possession. But, that box sits in the closet and we're forgetting all the stories that give them meaning and relevance in our lives. And so, we tried to help people preserve them by digitizing the process. We had a lot of success with the genealogy community. Everybody has a family history and genealogists in the family who like to build family trees. We grew the business rapidly in that community, and we ultimately sold the company to Ancestry.com which we believed was a natural fit to the business.

IBR: What were some of the most notable learning points from selling 1000Memories?

MK: Selling a business has a lot of appeal to it. From the outside, selling a business seems like a very "cool" thing to do. If anything, the learning experience is that it's harder to sell the business than it appears. The selling process is longer than what people might expect.

Once the sale is done, you become an employee again. For a lot of people, that transition is very difficult, especially if you're an entrepreneur and the part you loved was building the business. Suddenly, you're an employee of a much larger organization, and with that comes bureaucracy, bosses, and a much slower pace of working. And so, most people don't stay long after mergers. I stuck around for a year, and I learned a lot at Ancestry.com. It's incredible to work for a company that has millions of users every day operating at such a large scale. But, I was anxious to start a new business and I was ready to leave.

IBR: You mentioned that when you co-founded Wealthsimple, you did it with a team that you had in 1000Memories. What do you look for in your co-founders and early partners when setting up a company?

MK: Firstly, I don't think that I would be here today if it wasn't for the fact that I had such a strong team helping me out through every part of the journey. When I first worked with my future co-founders in 1000Memories, I felt comfortable being able to delegate critical tasks to others. Finding co-founders isn't about finding coders and programmers; it's about finding those that you can trust. It's about being able to find someone who's honest and direct. Unless you can find that person, you won't be able to grow your company effectively.

IBR: What was the fundraising process like for Wealthsimple? You recently raised a $30-million investment round from Power Financial Corporation. Why did you choose to partner with them instead of a traditional VC?

MK: Since we started, Wealthsimple went through two rounds. The first was in May 2014, when we raised a $2-million seed round. That took us 2-1/2 weeks, and we raised money from 15 investors in Toronto which included David Ossip, Dan Debow, and Roger Martin. We were fortunate to have found our investors early. Through their guidance, we were able to become the largest and fastest growing online investment manager in Canada. The $30-million investment round from Power Financial Corporation was different. We were thinking more long term regarding an online investment manager in Canada. The $30-million investment round from Power Financial Corporation was different. We were thinking more long term. Because robo-advisory was such a new concept, we needed to do something significant to legitimize ourselves. Power Corporation is an interesting company because it's a massive financial services business that gets what we're doing, and because it's family owned. Those two things came together to create a very long-term view. We were extremely aligned with the business that we were building and that's been powerful for us.

IBR: Moving forward, how do you see Wealthsimple co-existing with the big Canadian Banks?

MK: I can't predict the future. We're just going to keep doing what we do. WealthSimple works very well for everybody, but we're especially focused on young professionals, and we think that we can service that segment of the market better than anyone else in the world. We're going to keep focusing on that segment and work to over-deliver on their expectations every day. If we do that and stay nimble, push the envelope, and push to innovate, it's going to be hard for these banks to compete.

The banks have a challenge - they think of everybody as businesses or clients. Banks offer the same service to the 12-year-old who just opened his first bank account and the 75-year-old retiree. Trying to solve all of those experiences and all of those different needs is incredibly challenging. Moreover, banks have a legacy fee structure that's not competitive with ours, branches everywhere, and technology that's 30 years old in many cases. So, our benefits are much more than our competitive fees. We have the ability to focus on who our clients are and deliver a digital experience that's exclusive to them.

So, I feel really good about where we're positioned in the marketplace. I think that the banks are certainly signaling that they are going to work harder to come after us, but we don't worry about that. We just worry about our clients and if we do that better than anyone else in the world, that's how we're going to win.

IBR: What's your current take on the state of fintech in Canada?

MK: I think we're coming of age. I think that it's a super exciting time. Regulators are signalling their support for new, innovative solutions that increase access to great financial services that bring down costs and increasing transparency. The OSC recently started "LaunchPad", a new innovative arm that helps fintech companies launch and scale up. We have massive amounts of capital coming to markets. Just within the last two weeks, two new venture capital funds have been announced.

Most importantly, I think that the Canadian market is finally ready to adopt and trust these new services and solutions that they never had before. I think this new generation has very different expectations of their banks than their parents and grandparents do. They don't want to walk into a bank branch, and they don't want to fill out 50 pages of paperwork to open an account. They want it to be simple, seamless just like Uber and Facebook, and I think that's where companies like ours are able to deliver. I personally think that there's a full cohort of amazing fintech companies that are coming up, and I think we're at the very start of a new phase for Canadian fintech companies.

IBR: Where do you see Wealthsimple going in the future?

MK: We aspire to be one of the largest and most innovative financial services companies in the world. You can expect that we do not plan to be a Canada-only company. We are looking to build a global enterprise, and we're very excited about that. You can expect more in terms of what we offer clients. Today we do investment management, but we'd like to help our clients be successful across all their financial needs at the same time, and bringing that simplicity and experience is what we do best. We're just getting started.

As enablers in this industry, we have a direct-to-consumer model that works very well, and we intend to keep growing that. However, we're not looking to eliminate financial advisors all together. We have a place in WealthSimple that's designed to help any advisor who works in the industry offer great personal experiences to their clients. This allows them to more efficiently run their local business, and it's been growing exponentially. I think that it's a powerful model for how we're going to scale this business to support other advisors across the industry.

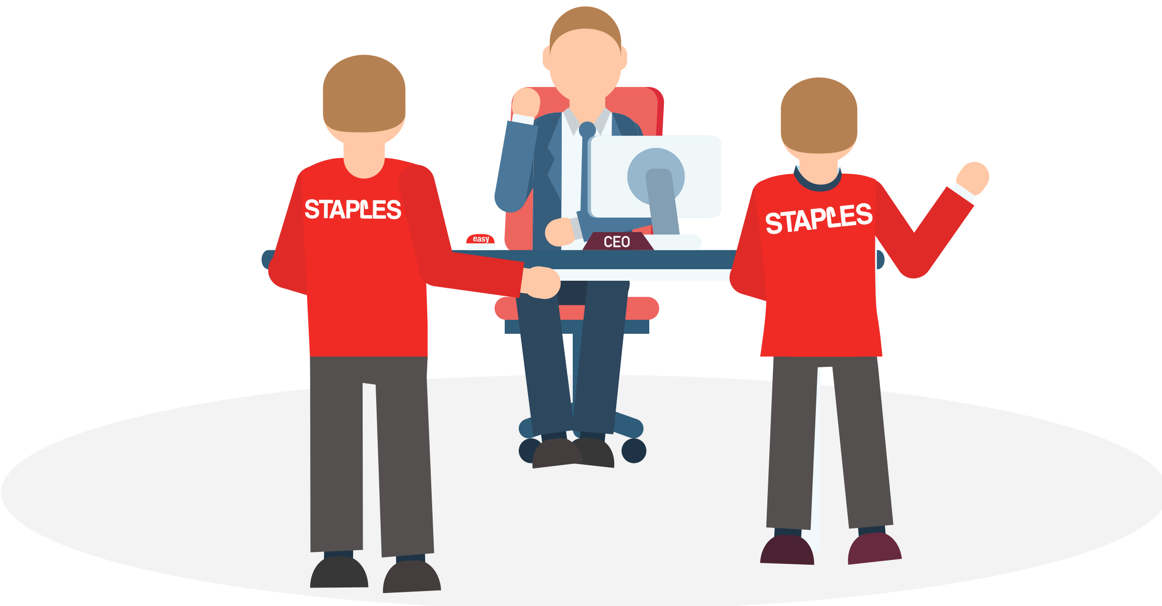
IBR: There are a lot of aspiring entrepreneurs at Ivey. What advice do you have for them?

MK: While you're at Ivey, go make friends with as many computer science students as you can or pursue the dual program to learn those skills yourself. Software engineers are huge enablers in the startup space, and combining the business knowledge that you gain from Ivey with the programming skills that you learn from pursuing a dual program is extremely valuable. I'd also advise them to go build things. It doesn't have to be a business, but you can learn what it's like to start something from scratch and see it through.

STAPLES: CHANGES ARE THAT EASY

Hope remains for the office giant as a pure play

Ann Kamau & Lambros Tetoros



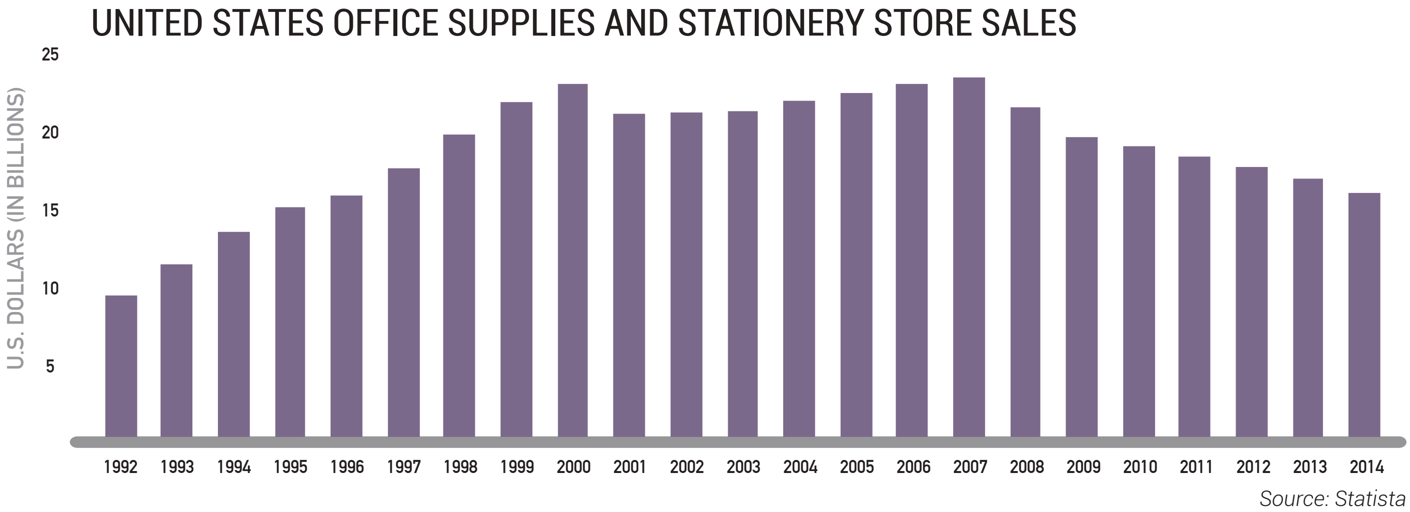
The Pointed Truth

Staples has had a tumultuous year. After announcing an optimistic solution to merge the company with Office Depot in 2015 in an attempt to offset severely declining sales, a 2016 ruling against the merger sparked the resignation of CEO Ron Sargent. In the following months, the company's stock price plummeted 20.7 per cent in two days as investors lost trust that the once-dominant superstore could make a comeback. Faced with competition in the office supply industry from Amazon, Walmart, and Costco, Staples is struggling to retain its share of an ever-shrinking market.

To mitigate the damage of sales decreases on its bottom line, Staples has been working to lower operating costs by closing brick-and-mortar stores across North America. The company has relied on its e-commerce platform to prevent revenues from declining at a faster rate than its costs. However, although operating margins have increased from 1.3 per cent in 2015 to three per cent in 2016, competing predominantly in the e-commerce space may not be a sustainable solution. To mitigate the threat of increased losses from its consumer segment and differentiate itself from e-retailers, Staples should refocus resources on building out a consulting service for its business-to-business segment.

Paper Cuts

The office supply store market in the U.S. has seen a 5.5 per cent decline from 2011 to 2016. The trend illustrates the shift to a technologically-integrated society with less need for the products provided by traditional office supply stores. The core concept of a specialized office supply store has begun to fade to irrelevancy. As a result, competitors in



this industry are emphasizing convenience to consumers looking for a simple, in-store purchasing experience. Individual consumers are looking to competitors such as Walmart, Amazon, and Costco, which are successfully cross-selling product lines, to eliminate the need to visit specialty office supply stores. This increased competition is why Staples sought to amalgamate with Office Depot. The combined office equipment conglomerate would be well-equipped with the financial flexibility to take on higher-risk opportunities, including shifting its business model to excel under challenging market conditions.

Staples has seen a decline in market share, giving large e-retailers such as Amazon and eBay the opportunity to enter this market with a more convenient one-stop shop offering. While Staples has actively worked to cut costs, there has not been an aggressive push to increase revenue which is imperative to improve profitability. The company can drive this change by creating more value for corporate customers in its business-to-business segment. Staples' sales mix includes key focal points in office supplies, business technology, and services. Business technology and core office supplies have decreased as a percentage of cumulative sales over the last five years, moving from 18 per cent and 29 per cent in 2011 to 13 per cent and 25 per cent in 2015, respectively. In contrast, the services segment has seen significant growth from 5.7% in 2011 to 9.5% in 2015. These patterns are in line with Staples' plan to close select stores. In 2015 alone the company closed 50 more of its 1,607 North American locations.

Staples has become less competitive in these areas due to market saturation. Currently, Staples' North American in-store and online segment represents 46 per cent of sales, where in-store and online sales represent B2C channels. On the other hand, B2B entails the company's comprehensive service offerings to commercial clients, such as customized account support. Staples mediates its B2B interactions through Quill.com, an online storefront directed at small- and mid-sized businesses, and Staples Business Advantage, a platform for large corporate customers. The growth Staples needs to succeed as an organization can be found in this B2B space. The company's ongoing focus should be in the service area, which has gained consecutive increases within Staples' overall sales mix. In this area the knowledgeability and expertise Staples embodies is a valuable asset it can harness in order to stand apart from the competition.

Progressing Past The Ball Point

Increasing focus to its business-to-business operations will not restrict Staples' current strategy of closing brick-and-mortar locations, as cutting underperforming stores will help the company retain profitability. However, since Staples has a well-recognized brand name, especially among businesses, the company can expand to new verticals in the B2B space. In particular, the company's sales force expertise can be exploited to create a unique value proposition big-box stores cannot provide. Staples can differentiate itself by exploring a B2B consulting service which that will allow customers to work hand-in-hand with Staples to identify and solve inefficiencies in their own organizations.

Staples should position members of its sales force as expert consultants within small- to medium-sized businesses as a means of capitalizing on their valuable knowledge. Having a Staples expert consultant work with B2B customers will allow businesses to maintain low operating costs while encouraging companies to explore which new technologies that are best suited for their needs. Expert consultants would work on site with business customers to gain an understanding of what their needs are for office supplies and technologies, and identify the Staples order that would optimize the client's day-to-day work.

In order to maximize the value added to the consumer, Staples should consider targeting small- to medium-sized businesses, who often have few or no staff dedicated to optimizing company throughput. Having an employee work with customers as a professional advisor will also help Staples push marketing strategies. The consultant would determine a need or area of improvement and make a recommendation from Staples' product offerings. This could stimulate the buying cycles of Staples' customers, leading to more purchases and achieving a reliable revenue stream.

If pursued, this option would help Staples give customers the tools they need to solve existing problems. Internal consulting will benefit the customer by providing the expertise to make cost-saving improvements that customers are unable to identify themselves. This allows Staples to fully deliver on its mission statement to help businesses succeed in every aspect of operations.

Consumers' buying patterns will change. Continuous purchases throughout the year will be less prominent. Taking its place would be lower frequency, higher volume purchases as a result of guided expert advisory. Staples could expect to see its services category represent a larger part of its sales mix. The business technologies segment could also grow and rebound from previous declines due to up- and cross-selling.

The Easy Button

To build adoption of this B2B consulting service, Staples will have to convince the small- and medium-sized businesses that they need advisory. With inertia having a huge impact on restricting new technology in family-owned businesses, the cost would have to be low to onboard those businesses as consulting customers. To mitigate the cost barrier for smaller businesses, Staples could incorporate the cost of consulting within the price of the products purchased as a result of the service. For some orders, Staples would be able to use volume discounts, possible through upselling, to negate the costs of consulting to the end consumer and even offer discounted products. In either case, optimizing business results for the customer is necessary for this segment to add value.

The roll-out timeline for the service would be around one to two years. There are two necessary actions to ensure a successful launch. First, Staples should establish a consulting network at remaining locations. The existing sales force can leverage its expertise and additional training to provide this service, supplemented by external hires. Second, Staples needs to maintain connections with existing B2B consumers, cultivating a network of businesses that already shop in-store or online, and assign new advisory staff to these clients. Revenue growth for Staples must be synonymous with revenue growth or cost-cutting for clients. The successful impact of these consultants would not be observed until after early financial reporting periods.

The new, internal consulting practice would allow Staples to realize a larger percentage of overall revenues through B2B operations. In conjunction with closing down North American stores, launching into B2B consulting will decrease the B2C sales mix, further removing Staples from this segment. Over a three-year period, the service-based segment will see cost savings of over 1.5 per cent, representative of the streamlining of sales processes associated with old stores.

In terms of customer adoption, financial estimates are moderate. Understanding that this new service likely would not be adopted immediately, sub-50 per cent adoption into perpetuity was applied. At a 3 per cent fee to all completed sales after using advisory services, the implied sales impact averages around $50 million in revenue at the start, increasing by 200 per cent two years thereafter.

For Staples' long-term success, there must be recurring revenue in this segment as it grows. In the next 10 years, it is predicted that the new segment could attract up to 10 per cent of total current sales.

Tackling Virtual Pens

The consumer market for Staples is not what it used to be. The dated business model it uses in the big-box and e-commerce dominated landscape is proving to be unsustainable. The divergence into a new vertical service stream allows Staples to transition from an office supplies store to a business partner. This can help it differentiate its offerings to B2B clients. This implementation will encourage sales of its business technology segments and provide new cross-selling opportunities. As a whole, Staples will benefit from the ability to understand the needs of its client organizations before looking to a competitor to purchase. To separate itself from the e-commerce giants and big-box retailers, Staples must utilize a revamped service focus with its traditional broad office supplies backing. Through this initiative, Staples will find itself on an arduous but worthwhile path to recovery.

COSTCO: BREAKING DOWN THE BULK

Costco can gain a new target market by staying true to its business model

Richard Wang & Eva Xu

An Aging Company

With 700 stores and more than 80 million members globally, Costco has gained an exclusive following with its iconic membership model and unbeatable prices. This has established the company as a dominant player in the warehouse club sector with annual revenues of $118 billion. However, despite Costco's previous geographic and financial advancements, the company's revenue growth over the past year has stagnated. The retailer reported flat quarterly comparable sales for the first time in six years, subsequently failing to meet analyst growth projections.

Changing Tides

Costco serves both retail and business clients. However, despite the company's relatively strong retail membership base, millennials represent a small percentage of this group. This is due to a prohibitive membership system and problems with storing and finishing bulk quantities of perishables. As a result, the Costco model does not resonate with younger people who identify as individuals as opposed to families who prefer bulk buying: a survey of 175,000 shoppers conducted by InfoScout reveals that millennials spend the least at Costco compared to retailers like Whole Foods and Kroger, while Baby Boomers spend the most. CFO Richard Galanti has downplayed the urgency of the situation by advocating for incremental change: "We are not going to do anything rash but we are also not going to have our heads in the sand." This inaction may be due to the fact that Costco's membership has historically been replenished by the younger demographic as it ages, starts families, and purchases memberships. However, Costco should show more initiative in addressing the oncoming demographics challenge. While revenues from its current target market have been healthy, a significant problem lies over the horizon.

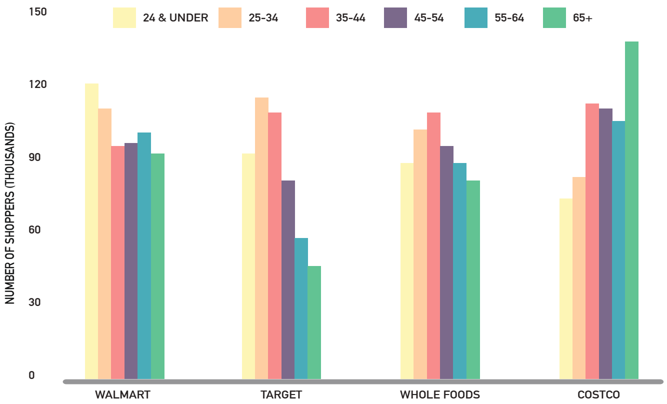
Costco's challenges with the younger demographic may be exacerbated by the emergence of digital players, as the convenience provided by online platforms may push younger consumers towards these alternative purchasing channels. Costco's hold on this future market is gradually slipping, and an unwillingness to act will leave it unable to adapt to a rapidly changing industry. It is critical that Costco takes initiative in capturing younger shoppers to protect its membership base.

The Race Against Digital Retailing

Certain retailers such as Walmart, Kroger, and Amazon have created digital offerings that have emerged as notable threats to Costco's membership base. Amazon Prime in particular has revolutionized the delivery scene, more than


COSTCO
WHOLESALE
COSTCO
WHOLESALE
amazon
amazo

RETAIL POPULARITY INDEX BY AGE GROUP



Source: InfoScout

doubling its membership among U.S. households in four years from 20.3 per cent to 44.3 per cent. As services like Prime gain popularity, households may begin to cancel memberships with the warehouse club.

Although Costco offers household perishables in bulk formats, Amazon's Prime Pantry service now allows shoppers to have staple pantry items shipped directly to their homes for a small delivery charge; this convenience of delivery is attractive to millennials. Furthermore, Amazon caters specifically to this group by offering a Prime Student program, which provides a free trial for students followed by a 50-per-cent discount from the full $99 annual price. As young shoppers grow accustomed to the convenience of Amazon Prime, they become inclined to renew subscriptions even when they no longer qualify for the student discount, thereby threatening Costco's ability to recruit members in this age group.

Nonetheless, what distinguishes the club retail giant is the classic Costco experience: walking amongst the wide expanse of product skids, taste-testing free samples, and ultimately having access to a diverse, tactile marketplace environment. As such, the wholesale giant emphasizes its shoppers as members rather than just customers, differentiating Costco's model from those of online retailers. For many of the company's 80 million members, this in-person shopping experience is something no online substitute can replace: the ability to curate a distinctive sense of community and customer involvement.

Delivering Another Perspective

At its core, Costco's business model emphasizes group purchasing. Rather than altering this fundamental approach to attract the younger market, the company should leverage it. Costco must realize that millennials, although typically considered as individual actors, also belong to natural groups: they are roommates and teammates. To be successful, the company should purposely group millennials into the larger purchasing units that it is traditionally familiar with.

Through establishing these groups, the retailer would be able to redefine the Costco appeal to one not limited by bulk purchases, but a holistic shopping event that is engaging for a group of individuals. To achieve this, Costco must find a way to establish group dynamics while catering to individual purchasing preferences.

Costco currently cannot offer the same level of convenience as online retailers due to its warehouse-centered model. Despite the company's engagements in experimental delivery partnerships with Instacart and Google Express in the U.S., these initiatives have been fragmented and distribution has been limited. Although delivery and convenience are intuitive problems for Costco, they should not be primary fronts that the company uses to differentiate itself, especially against a logistics giant like Amazon. Instead, Costco must focus on the holistic shopping experience.

Without a delivery arm, access to transportation remains a concern given the sparse distribution of warehouses and a volume-based purchase model. Still, this obstacle tends to be overstated. In large urban centres, where owning a vehicle is expensive and inconvenient, robust public transportation infrastructure and car-sharing services have made travelling easy for millennials. These alternatives to owning a vehicle are compatible with Costco's warehouse model and place the retailer in a favorable position to capture the millennial market.

All In This Together

Costco's membership model is what allows the company to be profitable in spite of its low margins. Its current standard membership costs $55 per year and allows for one additional spousal cardholder. Membership fees accounted for 72 per cent of operating income in fiscal 2016, indicating that profit is primarily driven by the number of members.

To continue growing its member base, Costco should consider a group membership tier aimed at individuals aged 18-29. This initiative lowers the barriers to entry for students and youth, allowing them to share the cost of the membership and shop together. The annual fee of the new millennial group membership should be fixed at $99, providing individuals with an incentive to maximize the size of their group. Additionally, Costco should offer discounts that scale with the total purchase amounts made by groups: each shopper could earn a discount if the group's cart is more than $200, which promotes impulse buying. This would encourage group members to all shop together, ensuring that shopping trips are a more social experience. By extending membership access to this underserved demographic, Costco would not only increase current memberships, but also become well-positioned for long-term revenue growth as these individuals graduate from the millennial pricing system and adopt full-price memberships.

These millennial groups would buy collectively, adhering to Costco's bulk purchasing model. However, unlike families, millennials are typically unable to make buying decisions on behalf of other group members; therefore, Costco needs to incentivize as many group members as possible to enter the warehouse for this recommendation to succeed.

A Little Something For Everyone

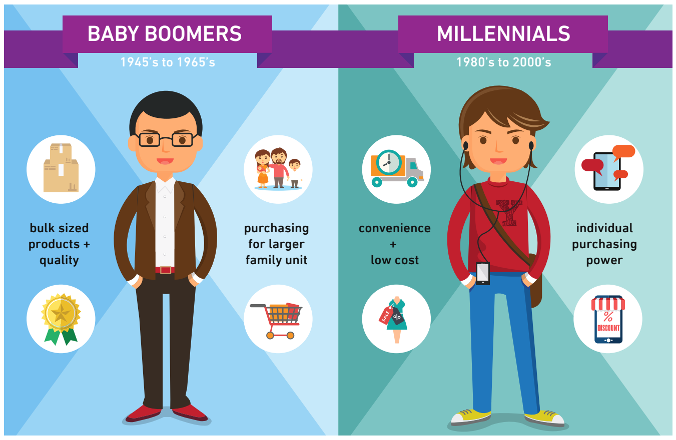
Costco should periodically hold quick, heavily discounted "fire sales" for millennials to purchase popular items at low prices. Although these items would be loss leaders, fire sales would be exciting, one-time marketing events propelled by word-of-mouth advertising through the millennial social network. With this initiative, Costco could draw the attention of millennials previously uninterested in bulk purchasing. Products, such as protein powder and electric razors, should appeal to young shoppers and be of reasonable value so that savings are material. In order to minimize the financial impact of these heavy discounts, the company should feature in-house "Kirkland Signature" branded products with higher margins. Additionally, Costco can discount older models of selected products: this way, despite a necessary loss on the SKU, the company will be able to clear up inventory to make room for new models.

A risk for the group purchasing model is that oftentimes, a group must make unanimous buying decisions. If one roommate wants to split a product but the others do not, this may discourage the first roommate and prevent purchases from being made. In the worst case, this may push a group to visit a traditional grocery store instead of Costco. As such, Costco should reserve a small portion of floor space for products to be sold as individual units at a higher margin. This section would help Costco cater to individual preferences, containing SKUs such as organic produce and speciality health products like vitamins. Cannibalization would likely be insignificant since traditional Costco customers would still prefer to purchase in bulk to maximize savings. Instead, this recommendation mitigates the concerns of millennials who are skeptical of the group buying platform.

Success In Groups

The impending demographic challenge is an underappreciated problem for Costco. The company must take action now to protect market share moving forward.

BABY BOOMERS VS. MILLENNIALS



Source: IBR Analysis

Currently, Costco is inaccessible to millennials due to the inconveniences of bulk purchasing and a restrictive membership policy. Rather than respond by adopting digital strategies like Amazon, Costco should instead focus on what it does best. With millennial memberships, group discounts and fire sales, Costco will be able to create a social shopping experience that is capable of reaching younger demographics. Millennials will be able to share the in-person shopping experience with friends while also making individual decisions, establishing Costco as an inclusive ecosystem. This strategy will push millennials to choose a Costco membership instead of digital alternatives once they age.

Demographic trends represent a further opportunity for Costco. The rate at which American suburbs are growing is faster than the rate in metropolitan areas, and urbanization has plateaued in the U.S. and Canada at one per cent in recent years, down from 2.2 per cent annual growth between 1950 and 1970; this number is projected to decline further to 0.8 per cent in the next two decades. As millennials age, many continue to gravitate towards suburbs, purchase homes and establish families. This process expands Costco's target market over time.

Historically, Costco has managed to maintain annual renewal rates of more than 90 per cent due to conditioned buying habits and brand loyalty. By capturing millennials in their youth, the company would benefit as young shoppers graduate into regular memberships and form their own families. This forms a sustainable advantage for Costco over the digital competitors that lack the wholesale giant's iconic in-store experience. By taking serious action today, Costco could secure a dominant share of the shoppers of tomorrow.

WALMART: NFC-AVING PRICES

Walmart can aid CPG brand loyalty by implementing smart packaging for ease of repurchase

Monisha Kishinchandani & Sharat Ramamani

Dashing Away From The Stores

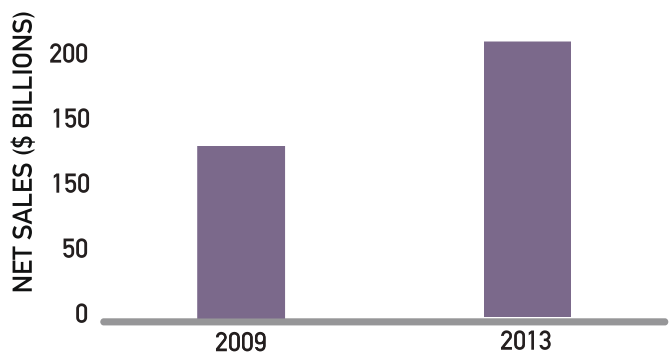
The $4.8-trillion retail industry in the U.S. stands at a crossroads. As customers increasingly demand convenience as a cornerstone of the buying experience, e-commerce platforms are becoming a critical piece of the retail industry. E-commerce has become a new sales channel for retailers to reach consumers. This platform has disrupted the retail industry's traditional brick-and-mortar sales channel, causing significant declines in foot traffic and in-person sales. Retail store visits fell from 35 billion in 2009 to 17 billion in 2013. In contrast, retail sales from e-commerce platforms are growing rapidly; having accounted for $130 billion of total online sales in 2009, sales grew to $211 billion by 2013.

In the retail industry, two firms occupy opposite ends of the e-commerce spectrum: Walmart and Amazon. Walmart has long been a behemoth in the brick-and-mortar retail space. With $353 billion in 2015 U.S. revenues and 5,163 stores in the U.S., it has three times the sales of its closest competitor. Amazon, only founded in 1994, has dominated the e-commerce space, commanding 68 per cent of the mass merchant e-retailer market in the US. Walmart, by comparison, represents just 10 per cent of this market. However, Walmart is poised for growth in the sector with its latest acquisition of Jet.com, an online market place that discounts more as customers shop more

Behind Amazon's success as the leader of e-commerce is the technological innovations it brings to customers

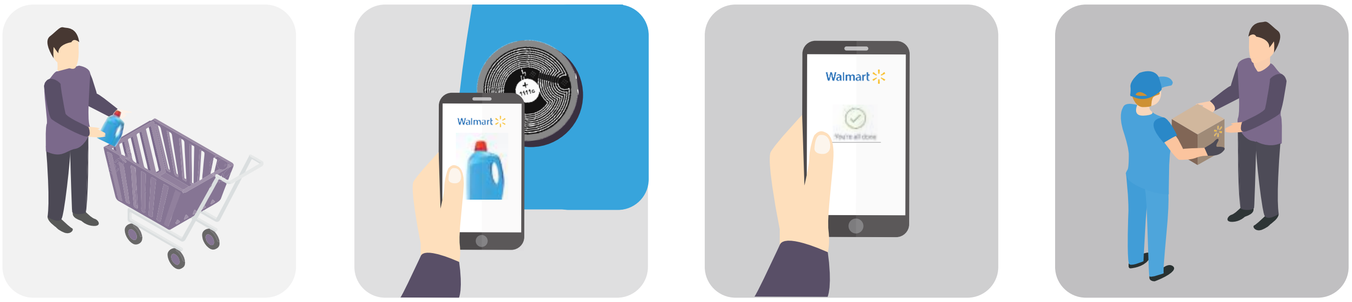
RETAIL STORE VISITS

SALES FROM E-COMMERCE PLATFORMS



Source: Market Realist

NFC PURCHASING PROCESS



Sources: IBR Analysis

that streamline the purchasing process. Amazon, over time, has been able to establish itself as a credible force within the retail industry, advancing the industry as a whole. To maintain a competitive advantage, Amazon has focused on improving the customer experience with the introduction of features such as one-click purchasing, open B2B marketplaces, and, most recently, the Amazon Dash Button

Dash Button, launched in March 2015, is a goods-ordering service which uses a small handheld device to facilitate the purchase of specific consumer-packaged goods (CPGs) from Amazon.com. Each device features an embedded button and is embellished with the logo of the brand from which the device purchases products from. Pressing the button sends a Wi-Fi signal to the Amazon Shopping app, which places an order for a specified quantity of the respective item, to then be shipped directly to the customer's home address. The value proposition of this product is the faster rate of product replenishment, leading to an increase in product loyalty.

While the most tangible benefit of Dash Button is its convenience, Amazon's is poised to pull consumers away from brick-and-mortar channels and further integrate e-commerce into customers' daily experience. Retail giants operating predominantly offline are the first to be exposed to this threat. It is this impending threat that suggests that Walmart should proactively embrace the e-commerce ecosystem before Amazon and similar online giants begin to nullify its power in the retail space.

Despite its high hopes, Dash Button has not realized the success it initially sought. In a study, it was discovered that only 0.1 per cent of the sample size have purchased a Dash Button. Additionally, fewer than 50 per cent of those who own the button have even used it. The failure of this technology to capture consumers presents an opportunity for Walmart.

With declining consumer interest for the traditional sales channels Walmart offers and rising threats from Amazon, Walmart should capitalize on trending e-commerce growth. Its acquisition of Jet.com provides new customer-friendly features and its underlying brand equity within the retail space will ensure it gains traction. However, Walmart will need to complement its existing e-commerce platform with technological innovations to directly compete with improvements like the Dash Button. There is opportunity in Walmart maintaining its share of consumers by converting existing brick-and-mortar shoppers to their e-commerce platform. The bridge lies in creating a portal to e-commerce from the brick-and-mortar stores by targeting shoppers in a way that the Dash Button could not. A technology exists that will spearhead Walmart's evolution to an e-commerce giant: Near Field Communication (NFC) product packages.

Being Intelligent With Packaging

Smart packaging includes the embedding of technology into product packages. This includes technology such as QR Codes and augmented reality, both of which allow consumers to interact with packaging to learn about a product. Of the technologies that exist today, one innovation that can help solve the issues Walmart faces is NFC chips.

"As customers increasingly demand convenience as a cornerstone of the buying experience, e-commerce platforms are becoming a critical piece of the retail industry."

NFC chips operate as part of a link. Activated by another chip, small amounts of data between two devices can be transferred when held inches apart. One application of NFC technology is the triggering of mobile devices for payment services like Apple Pay. Integrating NFC with product packaging could help Walmart revolutionize the way that its customers re-order products through the e-commerce marketplace.

If customers hold an NFC-enabled phone against the packaging of a previously purchased container of detergent at home, it can trigger the e-commerce site to open, add the detergent to their online cart and ship it to their house. The convenience to the consumer is the value proposition of intelligent packaging. Customers will be able to reorder a preferred item without leaving their homes.

NFC could also provide additional product information, recipes and expiration dates for food items, and authenticity checks for premium goods. According to a Deloitte study, 84 per cent of retail store visitors use their smartphones before or during their visits to stores for product information. Those who do are 40 per cent more likely to spend money. By enhancing its digital ecosystem a to include NFC technology, Walmart can migrate from the largest brick-and-mortar store to a key driver of retail innovation.

NFC is the technology of choice due to superior versatility when compared to existing intelligent packaging technologies. Packaging featuring QR codes and Bluetooth beacons, while targeting similar functionality as NFC packaging, have not been well received by consumers because they are inconvenient. QR codes require the customer to download an app to scan the code and Bluetooth beacons push product notifications to the customer's phone, removing the locus of control form the consumer. In a study by Strategy Analytics, NFC technology produced a 61-per-cent preference when reordering consumables, compared to 20 per cent for QR codes. Furthermore, there is a growing trend in the mobile phone industry towards the integration of NFC chips in phones, and it is estimated that 1.9 billion phones will be NFC-compatible by 2018.

Getting Close To Technology

NFC technology has an edge over the Dash Button because of its low cost, re-programmability and ease of packaging. Brand loyalty and sales channel diversification in the CPG industry are falling in the United States. NFC-based intelligent packaging streamlines the customer purchasing experience to address these issues.

Among the top 100 US CPG brands, 90 have experienced market share declines in the past year. A more fragmented market has resulted in increased consumer brand-shifting, accounting for a 4.4 per cent decrease in sales volume for declining brands. NFC packaging would address the issue of brand loyalty by encouraging the re-purchasing of an item due to the convenience it provides to the consumer. Despite the Dash Button's commercial failure, studies have shown that the button leads to at least an 80-per-cent brand repurchasing rate for the products it helps reorder. If NFC packaging could emulate or improve on the Dash Button's figures, then CPGs would be more than likely to partner with Walmart to generate brand penetration and sustainable revenue sources. The Amazon Dash Button program requires a $200,000-licensing fee from participating CPG firms, as well as an 8-15 per cent commission to Amazon on every product sold. Walmart should structure its membership costs to be competitive with these fees.

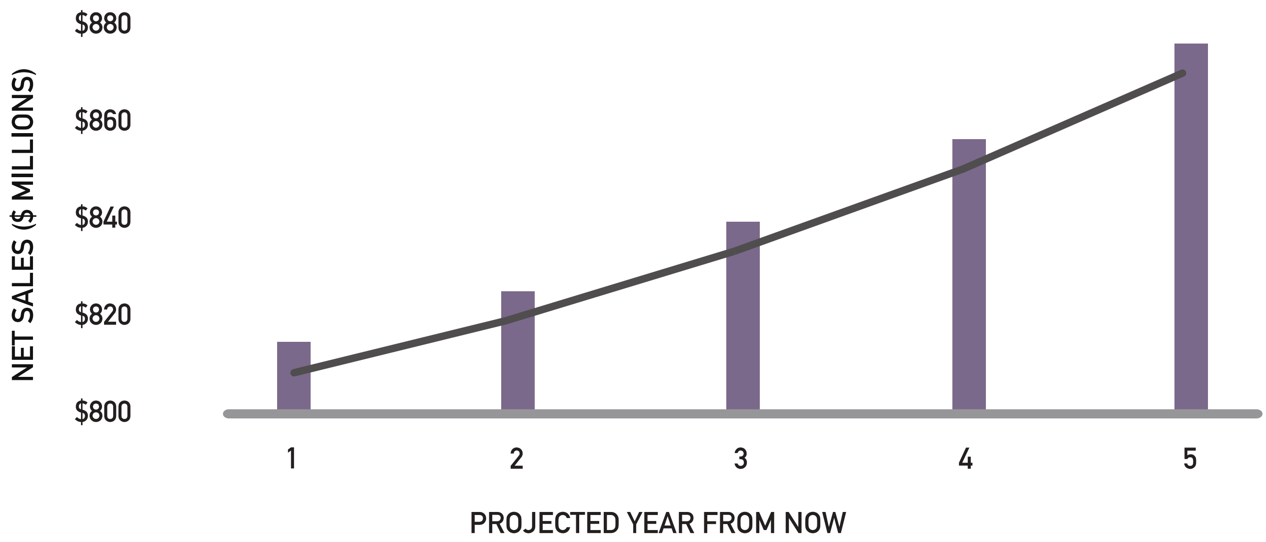
Buyer shopping habits are changing as well. Traditional weekly one-stop shopping trips at big-box stores are disappearing. In their place, drug stores, premium grocers and discount chains offer consumers alternative options and are quickly capturing retail share. The diversification of sales channels has pulled consumers from traditional retailers, and an increasing number of consumers are spreading their purchases across a larger number of channels. NFC packaging would transfer these consumers from brick-and-mortar stores to the e-commerce sites where it's easier for CPG companies to target ideal customers and present their entire product portfolio in one place.

Declining brand loyalty and sales channel diversification presents an opportunity for Walmart to push CPG firms to adopt NFC packaging. The incentive for CPG firms to undertake this technology is the increased repurchasing of same-products and the ease of operating in e-commerce over physical locations.

The introduction of this portal also connects traditional customers to Walmart's existing digital sales channel. Walmart's promotion of its e-commerce channel is limited, instead choosing to focus on flyers, print ads, and other traditional advertising which continue to decline in popularity and effectiveness. Flyer readership and

"NFC technology has an edge over the Dash Button because of its low cost, re-programmability and ease of packaging"

WALMART: FIVE-YEAR PROJECTION



Source: IBR Analysis

response rates have been plummeting in recent years. Walmart's reliance on traditional channels restricts its reach to younger generations and restricts traditional shoppers from adopting technological advancements. By promoting the use of this new sales channel through known and loved brands, Walmart sets itself up to gain traction in the digitized world and convert traditional shoppers into online shoppers.

> *"CPGs would be more than likely to partner with Walmart to generate brand penetration and sustainable revenue sources."*

The most tangible benefit Walmart stands to realize is the growth in e-commerce sales it makes from every purchase made through NFC chips. Synergies between CPG firms and Walmart can be strengthened by offering attractive shelf-space or looser credit terms to companies that adopt intelligent packaging. Under this approach, Walmart can better track customer purchasing habits through online profiles, giving it access to valuable payment data. Customer purchase data could be sold to CPG companies in exchange for discounts or support in growing Walmart's e-commerce platform. Further, the creation of a direct sales channel linked to a specific good, benefits consumers through convenience and introduces the opportunity to make a transition into e-commerce. Most importantly, these sales channels facilitate interactions between Walmart and its users, creating room for better personalization.

Moving Forward

NFC-enabled intelligent packaging would kick-start Walmart's e-commerce strategy. By embracing this digital era, Walmart sets itself up to compete directly with online players and helps the brand appeal to younger consumers who buy online.

Moving forward, successful companies will need to integrate new technologies to defend their market shares in the face of a more digitized world. The retail industry has long protected known and loved brands inside the brick-and-mortar stores. A move to e-commerce now threatens that stability. Retail giants must take a proactive approach to tackling the new era of digitization.

GROUPON: **GOOD DEAL HUNTING**

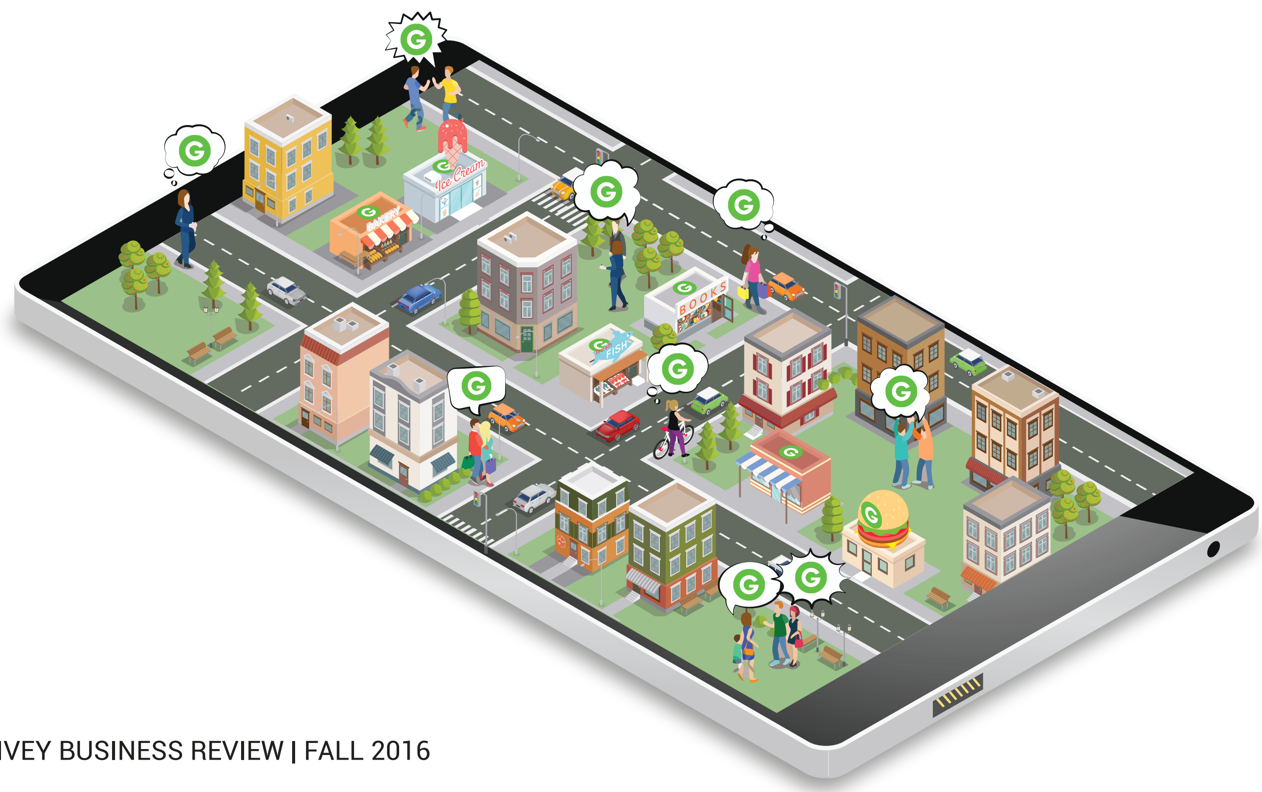
Social media partnerships capture the "future-oriented" socialization others have failed to achieve

Eunseo Namkung & Alafiya Shabbir

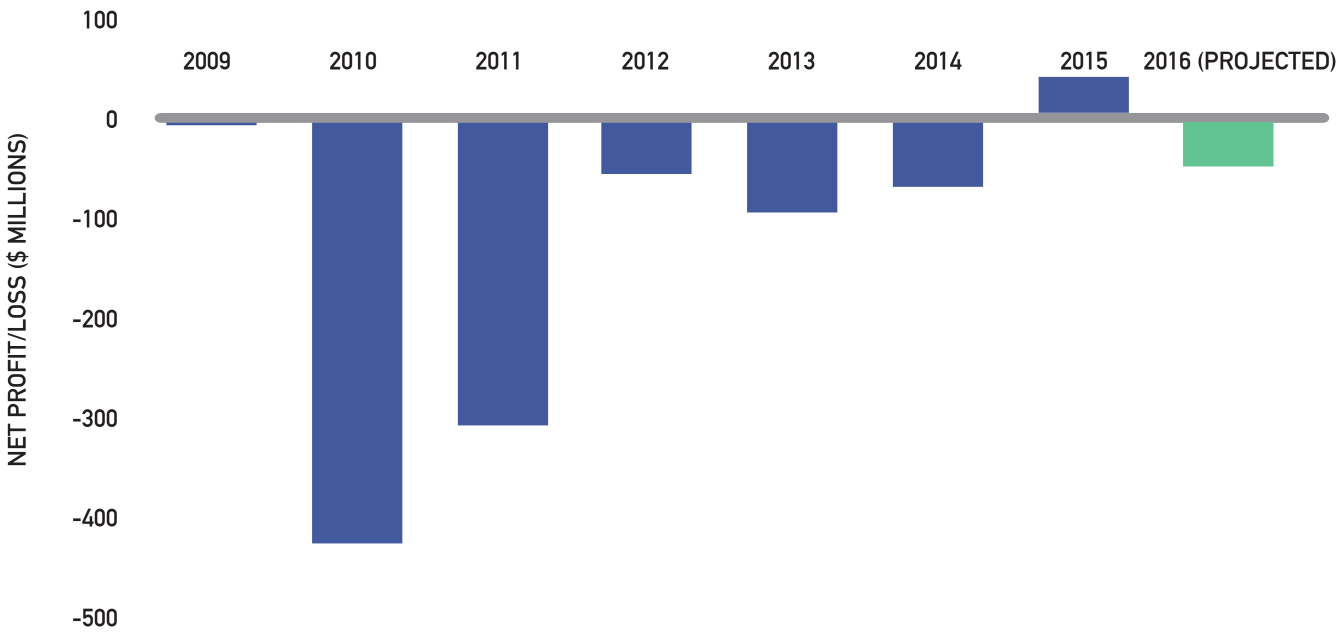
Short-Lived Fame

Once the Internet's darling of startup ventures, Groupon, an international online couponing and discounted goods marketplace, had been unprofitable for four years since its IPO in 2011. Furthermore, Groupon has since faced a slowdown in popularity and growth despite once boasting buzz over its rapid growth and unique business model. After scaling at what was widely regarded as an unsustainable rate, Groupon's problems have manifested themselves in poor year-over-year financial performance and dismal customer and business retention. Both these issues can be attributed to disproportional marketing expenditures that have failed to deliver expected returns.

Marketing expenditures made up 13 per cent of revenues and 29 per cent of gross profits in the first half of 2016, compared to 9 per cent and 23 per cent in the second half of 2015 respectively. Groupon's approach to marketing has been focused on online advertising campaigns, traditional advertising, and promotions, which has attracted new customers to the platform. However, Groupon's issue has never been attracting new customers. Its customer base has grown by 51 per cent over the past five years from 34 to nearly 51 million, but the company has struggled to generate repeat buyers. Gross billing per average active customer has decreased by 10 per cent from $137 in 2014 to $123 in 2016 as a result of Groupon's inability to foster positive customer-business interactions. With



GROUPON ANNUAL NET PROFIT/LOSS



Source: Statista

high customer turnover, Groupon's ability to generate sustainable cash flows is weak.

Couponing Problems

Groupon faces competition from similar market players that replicate its value proposition. The emergence of competitors such as LivingSocial, LiveDeal, and Woot.com forced Groupon to increase its marketing budget and price more competitively. As a result, margins have shrunk from 84 per cent in 2011 to 51 per cent in 2014. With a parity of competitors in the market, Groupon has not been able to differentiate its operations in a significant way.

Couponing is neither unique nor sustainable. Once customers become accustomed to using coupons to buy at a discount, they become less willing to pay regular prices in the future. This notion was illustrated when JC Penney altered its marketing strategy from offering weekly discounted goods to consistent "fair and honest" prices without discounts. The company received backlash from customers who had become used to the feeling of saving, resulting in the failure of JC Penney's new strategy. Groupon suffers from similar problems, with just 36 per cent of customers spending beyond the deal value upon redemption of the Groupon and only 20 per cent returning to the business for a full-price purchase.

Getting Down To Business

Groupon appeals primarily to small businesses as a marketing platform. Using the platform is seen as a way for business clients to gain exposure to consumers at a low cost with low risk. There are no upfront costs for businesses to offer deals through Groupon, and it bears no liability if the posting is not purchased. However, if a deal is purchased by an end consumer, Groupon takes a minimum of 50 per cent off the face value of the coupon from the client. Because of this, Groupon's business clients rarely make any substantial profit from the coupons used. Further, Groupon's policy of delaying its accounts payable results in a slow repayment cycle that only exacerbates the financial burden placed on its business clients. While these consequences were created from purposely enacted policies, there are business-side issues Groupon did not foresee.

Groupon's business clients frequently experience negative interactions with individual "Grouponers." The current Groupon user base is focused primarily on saving money and is not familiar with nor concerned about how small businesses work. They often expect the efficiency and scale of large businesses, and are disappointed with the services received from couponing. Small business owners are also less inclined to prioritize Groupon users over customers who are willing to pay full price; following their first experience, 40 per cent of businesses say they would not offer coupons through Groupon again.

Opportunity To Socialize Online

Online-to-offline (O2O) commerce refers to a business strategy whereby customers are drawn to physical

"Online-to-offline (O2O) commerce refers to a business strategy whereby customers are drawn to physical locations through online channel interactions."

locations through online channel interactions. For example, Uber uses a O2O business model: users hail a ride online through an app and a driver will arrive. On the other hand, O2O socialization can refer to the process by which groups interact online and subsequently pursue real-world social interactions. While there is a wave of online platforms organizing independent users into offline groups, no single platform has fully captured this new O2O socialization process.

Apps like Facebook and Twitter focus on the past and present, sharing past memories or current experiences. On the other hand, future-oriented socialization opens an opportunity for businesses to understand customers' intentions and take an active role in decision-making for future purchases. By better matching these customers' future events with business offerings, businesses are more likely to find success with their advertisements. With a range of activities at its disposal, Groupon is in a position to capitalize on this trend. Meanwhile, people join activity-based or fandom communities online to feel connected with other people with similar interests. Connecting these online communities to offline activities through a widely available and connected platform such as a phone can be the next step for O2O socialization.

Building A Stable Base

Focusing on Groupon's customer retention problem is the best way for the company to recover from its financial woes. The socialization of Groupon will help the company retain the user base that it desperately needs, while differentiating itself competitively. Leading the next wave of online socialization can set Groupon up for the success that so many had originally predicted.

Groupon must refocus its marketing budget on customer retention rather than customer base expansion. Furthermore, the company must pivot from being an online coupon marketplace to becoming the last link in the O2O socialization process. It needs to expand beyond its discount marketplace branding and shift towards new features: smarter suggestions for repeat users, better ways to explore local businesses, and an interface that allows it to become the haven for all online users who ask: "Hey, want to hang out sometime?"

PAST/PRESENT/FUTURE OF SOCIALIZATION

Source: IBR Analysis

For Groupon to capitalize on "future-oriented" socialization, it needs to appear in more platforms that facilitate O2O socialization. These platforms include websites and applications such as Meetup.com, Like a Local, LocalMind, Bumble, Eventsions, Gravy, and Vamos, and connect like-minded people by suggesting suitable group activities.

These apps can be grouped based on three general functions: organizing people who want to meet in person, advising users on local attractions based on crowdsourced suggestions, and sharing events and outings based on the activity of the user's friends.

"Focusing on Groupon's customer retention problem is the best way for the company to recover from its financial woes."

Each of these social network styles have shortcomings. The first, while good at forming groups, lacks the functionality to suggest or plan activities. The second and third, while good at suggesting locations to visit, lack incentives for users to try new activities and do not provide any coupons or discounts.

For platforms specialized in organizing users looking to meet in person like Meetup.com, Groupon should serve as an activity suggestion tool. Initially, it will need to use user-supplied data, provided through questionnaires, combining the interests of group members to make activity suggestions that appeal to the broadest range of people. As individuals in the group continue buying Groupons, the company can use past buying histories to tailor future suggestions for group activities. As suggestions become more accurate, consumers will trust both the social platform and, by extension, Groupon to help make socialization decisions.

> *"The type of customers Groupon can attract will then shift from value-hungry buyers to customers who value the business."*

For platforms good at suggesting or planning activities, such as LocalMind, Groupon will serve as the incentive for users to follow through with their buying intentions. When an activity or restaurant is suggested, users will be shown Groupon options and can decide what they are interested in exploring. Because these options are accompanied by appropriate discounts, users will be more willing to try a new activity. Furthermore, with its location-based model, Groupon can suggest additional activities for similar businesses or experiences nearby. With this feature, Groupon can be associated with finding local, enjoyable and discounted experiences.

CATEGORIZATION OF SOCIAL APPS

ORGANIZE PEOPLE	LOCAL ATTRACTIONS	FRIEND'S ACTIVITIES
Meetup.com	Like a Local	Eventsions
Vingle	LocalMind	Social Radar
Comeet	LiveDeal	Highlight
Pipo	Vamos	Peoplehunt
	Gravy	

Source: IBR Analysis

While multiple socialization apps may exist to serve the same area, they are generally varied in purpose. Due to these factors, it is possible for Groupon to partner with numerous platforms without fearing reproach for a lack of exclusivity. On the other hand, by partnering with Groupon, social apps can expect to increase user retention in addition to receiving a portion of profits from transactions.

Lasting Impacts

Groupon can reallocate the marketing budget spent on user base creation by integrating with social media platforms and tapping into pre-existing user bases of platforms it partners with. This would allow Groupon to attract new customers and increase customer retention without investing in an organic strategy. This will increase revenues by two per cent to $6.24 billion while decreasing marketing costs by 75 per cent to $112 million, leading to a two-per-cent increase in gross profits of $2 billion. Groupon can then reallocate the capital derived from the 75 per cent marketing cost-savings to relationship building and app development.

By tapping into activity-based groups, Groupon can match businesses with customers who have genuine interest in the product or activity offered as opposed to customers who are simply looking for a good deal. The type of customers Groupon can attract will then shift from value-hungry buyers to customers who value the business, improving previously strained relationships between Groupon and its business clients.

By partnering with social apps, Groupon can facilitate users on social networks pursuing real-world interactions. Groupon will use individual interests and buying patterns to suggest local activities. The partners' social apps and Groupon will each take a portion of the profits, and Groupon will collect multiple sets of buying data from each transaction. All that is left is for people to meet.

SHOULD WECHAT ABOUT **FACEBOOK'S NEW WALLET?**

Facebook is best positioned to develop the North American eWallet and can start with its Events platform

Shachar Dahan & Mark Ren

The Perplexing Plunge

What transpired after Facebook released its latest quarterly earnings report left a lot of people scratching their heads. Despite posting revenue growth of 56 per cent and net income growth of 166 per cent, Facebook's stock plunged by seven per cent and is projected, by one analyst, to fall by as much as 30 per cent. To bearish investors, the justification behind the price drop is less of a, "What have you done for me lately" question, and more of a, "What are you going to do for me tomorrow" problem. Comments made by CFO Dave Wehner indicate that Facebook expects to "See ad revenue growth rates come down materially". A slowdown in ad revenue growth is worrying, especially for a company that made 95 per cent of its revenue from advertising in its last fiscal year.

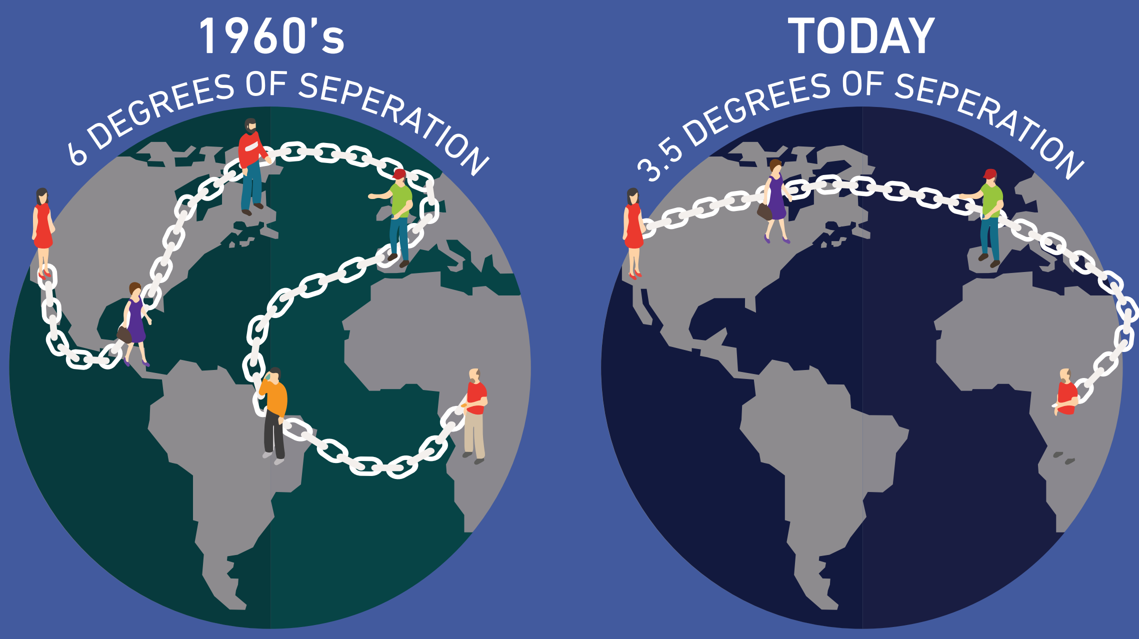
While advertising revenues are expected to continue contributing to the majority of Facebook's top line, Facebook needs to look at other monetization strategies in order to diversify revenue. Recent partnerships with Shopify in Facebook Messenger, as well as the rollout of business chatbots on Messenger, cement Facebook's ambition of becoming a major e-commerce player. But to truly solidify Facebook's position in the competitive e-commerce market, Facebook needs to introduce a social media eWallet so that the entire consumer buying process becomes integrated into Facebook's platform and ecosystem. To successfully create a "Facebook Wallet", Facebook should look East and learn from Tencent, which owns WeChat.

Since its creation in 2011, WeChat has grown from a simple messaging app into what has been referred to now as a super app. WeChat realized early on that continued growth could be stimulated by moving laterally into other markets such as video games, payments, and banking. Its most striking and groundbreaking innovation was the introduction of WeChat Wallet in August of 2013, which wholly transformed the way Chinese consumers interacted with money.

If there was a city where residents could hail a cab, pay for groceries, send money to friends, order products online, and request a bank loan - all conveniently in a single app - most people would be thinking of cities like New York, Chicago, or Los Angeles. Instead, it is in Shanghai, Beijing, and Hong Kong where the cashless economy has truly come to life. WeChat Wallet has the ability to make cash and coins obsolete and in the process diversified Tencent's revenue streams.

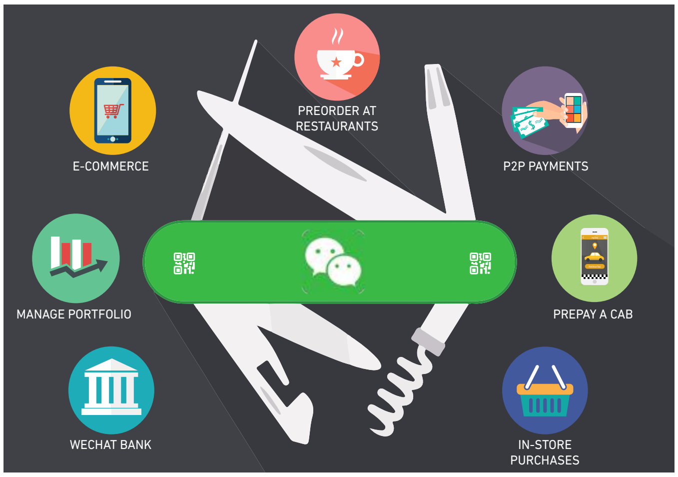
Facebook is not an American version of WeChat, nor can it become one. Facebook is fundamentally different than almost every other company because, as founder and CEO Mark Zuckerberg has stated, Facebook's focus is on building communities, with the ultimate goal of becoming the identity infrastructure of the planet. With around 1.79 billion monthly active users, Facebook has succeeded in its goal. While this is a difficult feat to quantify, an idea called "degrees of separation" can provide insight into Facebook's success. Researchers at Facebook and the University of Milan announced that users on their platform are only separated by 3.7 immediate friends, vastly reduced

DECREASING DEGREES OF SEPARATION



Source: Facebook and University of Milan

WECHAT: A SWISS ARMY APP



Source: IBR Analysis

the theory of six degrees of separation where there are six people between any two strangers. As the social network expands, the distance between any two individuals in the world shrinks. In effect, Facebook has brought the world closer together than ever before.

To Zuckerberg, creating socially-interactive communities is only phase one, "Over the next three years, we're focused on continuing to build our community and help people share more of what matters to them. The next five years are about building our newer products into full ecosystems, developers, and businesses. And in the ten years, we're working to build new technologies to help everyone connect in new ways". Facebook Wallet's functions will add more value to Facebook's communities by creating an integrated and connected e-commerce ecosystem among its products. If Facebook Wallet manages to penetrate and capture a dominant position in the battle to become the e-wallet of the West, then aggregating further financial technology services can become a paradigm-shifting way for Facebook to further connect communities and markets together in the future.

Warring eWallets

The eWallet of the East, WeChat Wallet, is what VP of Facebook Messenger, David Marcus, enviously expresses as simply "inspiring." WeChat is a super app - it's a Swiss Army knife that basically does everything all contained in one app. By rolling an extensive number of functions into one single app, WeChat has the ability to collect a staggering amount of personal data. It is precisely this kind of data that will be valuable to Facebook, as the company can use it to drive both its advertising and e-commerce revenues.

Unfortunately for Facebook, what worked in China for WeChat occurred in 2013 and in a much different market that cannot simply be copied into the American market. In 2013, Tencent introduced WeChat Wallet at a time when the eWallet payments market was largely dominated by Alibaba with their Alipay. By 2015, the overwhelming success of WeChat Wallet had allowed Tencent to capture over 20 per cent of the market share. With the way the Western eWallet landscape is shaping up, Facebook would not find success nearly as easily. This is due to the nature of China, unlike the West, haing a large population of unbanked customers coupled with a large number of smartphone users.

In 2015, the Chinese mobile transactions market more than doubled to $235 billion, surpassing the slower growth of 42 per cent in the U.S. market to $231 billion. As of 2016, more than half of WeChat's 700 million users have been persuaded to link their bank cards to WeChat Wallet. Only nine per cent of all UnionPay cards, the largest payment card network in China, is categorized as credit cards and less than half of the population owns a credit card to begin with. In contrast, more than 70 per cent of Americans own at least one credit card. Because consumers still perceive credit and debit cards as being just as convenient for onsite transactions, digital wallets like Apple Pay, Android Pay, and WeChat Wallet will need stronger value propositions to displace entrenched card-based payments. Even those who have tried a mobile payment service do not use it regularly. Only 5% of people who have Apple Pay use it when they can. The percentage of people who use the service more than once has fallen from its peak a year ago and is now sharply lower than what had been seen at launch.

In the West, the fintech industry is highly fragmented. Without a system that dominates, the market has become incredibly disjointed, making it difficult for merchants to determine which systems to invest in. The hypercompetitive nature of the market has already drawn casualties. Amazon Wallet proved to be unsuccessful and was removed from the market six months after release. The developers behind these products have found that consumer are tired of installing apps to provide limited functions. Simply replicating that functionality in a mobile device does not add any additional benefit to the customer. It is an extra step many are too lazy to take. EWallets in the West have also had a tendency to wrap themselves into their own platforms. Android users have Google Wallet, iOS users have Apple Pay; an app that can link across multiple operating systems, platforms and ecosystems will be far more robust and ubiquitous. Facebook has the ability to do that.

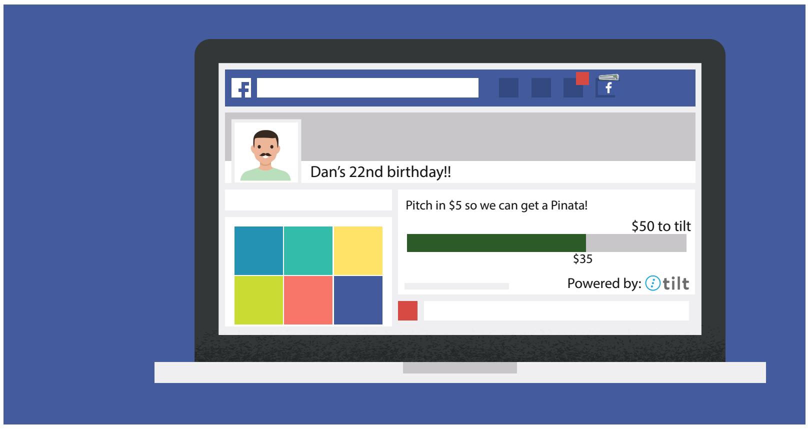
Incumbent eWallets have largely failed in the war of becoming the dominant market leader in the mobile payments industry. Facebook Wallet can avoid the mistakes these incumbents made by fundamentally differentiating itself with a competitive advantage that only Facebook itself possesses: its social network. Facebook Wallet is more than just replacing a physical wallet with a mobile credit card, it is the total and complete utility of being able to have one central digital wallet. This central wallet can aggregate all the fragmented FinTech specialities into one platform. These fintech services can leverage the existing social network, making it exceptionally easy to adopt. As a case example, a proposed partnership between Facebook Events and Tilt will depict how adding an eWallet service to a Facebook product would vastly improve the user experience.

Tilting Over

Facebook Events is a tool that is currently underutilized. The company wants to be able to monetize this application, but to do so, Facebook must first create a larger user base for Events. Although 650 million users have used Events, only 267 million users actively engage with a Facebook Event each month. The first phase in getting Events anywhere near monetization is to add features that offer small businesses and users more value.

Facebook should turn to Tilt in order to help build out Events into a more valuable tool. Facebook could easily create the crowdfunding technology in-house, in fact it already possesses a crowdfunding service for charities on Facebook collecting money for fundraisers. However, there are significant advantages to partnering with Tilt. 75 per cent of Tilt's users are either in college or are recent graduates. Tilt has had trouble branching out to the more mature demographic, Facebook wants to keep the younger demographic; it is a perfect match. Facebook offers Tilt a social network platform to tap into 1.79 billion users. In the process, Facebook easily offers a new service to its eWallet, removes a growing competitor.

INTEGRATION OF TILT INTO FACEBOOK



Source: IBR Analysis

Ultimately, enhancing Events' capabilities by integrating Tilt will add considerable value to Facebook's platform. Attending social, cultural, and professional events that were funded by the entire community creates memories people attribute to Facebook's help. Events brings people and communities together where they can, as a unit, fund memories.

Facebook's Promising Fintech Future

Creating a more frictionless user experience, and enhancing the interactions among communities is important, but eventually Facebook will need to monetize its eWallet.

Having its own eWallet will have a huge effect on Facebook's ecosystem, especially with regards to e-commerce. Today, Facebook already dominates as a source of social traffic and sales. Facebook is already a huge player in the e-commerce space, with almost 67 per cent of Shopify sales directed from Facebook. Additionally, 85 per cent of e-commerce sales directed from social media platforms come from Facebook. Plus, an average of 85 per cent of all orders from social media come from Facebook. The possibilities are endless. Being able to message a friend about ordering lunch, having a chatbot suggest a new pizza restaurant, opening the restaurant's menu directly on Facebook, selecting toppings and paying with Facebook Wallet, then giving the restaurant a review – all without once leaving Facebook's ecosystem. Being involved in all steps of the consumer buying process is extremely compelling for Facebook.

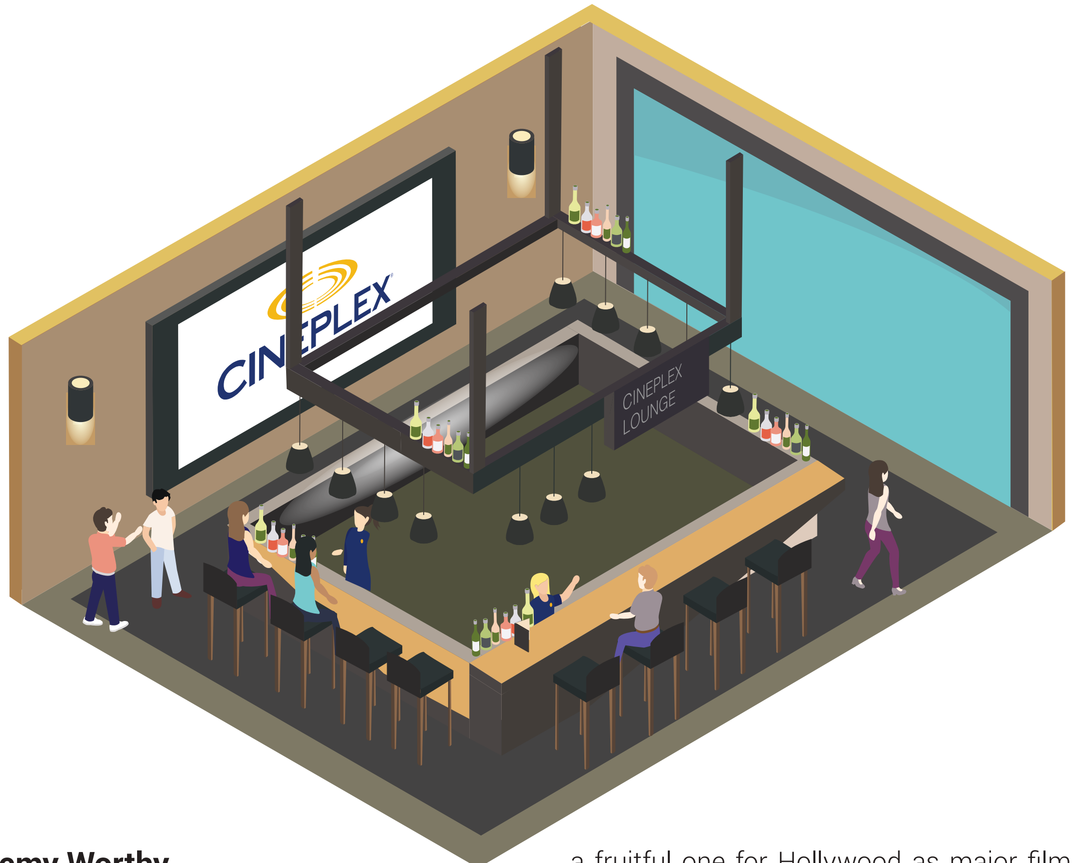
Facebook Wallet will be able to succeed where other eWallets have failed. It will match the success that WeChat Wallet has achieved, but succeed in a different way, and it does not have to end there. After all, the financial technology industry is much larger than just payments and crowdfunding. Most fintech startups pick existing financial verticals, such as lending, investments, payments or currency transfer, and choose to stick within their four walls. Most existing fintech startups focus strictly on their area of expertise, whether it be payments, lending or investment advisory. However, what consumers need is a platform that is less fragmented and more convenient.

The next phase after Facebook Wallet is successfully implemented is to have Facebook become the aggregator of all the available fintech services. The Facebook Bank will be a platform where you can shop for different insurance rates, trade different investments, pay for new VR investing services on Oculus Rift, and give a loan to a developing entrepreneur halfway around the world. So far with its social network, Facebook has brought people within a distance of 3.7 degrees; with a social media wallet, Facebook can bring people, and the world, even closer.

CINEPLEX: SERVING UP ACADEMY AWARDS

Understanding trends in socialization can help Cineplex smooth their blockbuster bets each year

Gordon Sun & Alex Wu



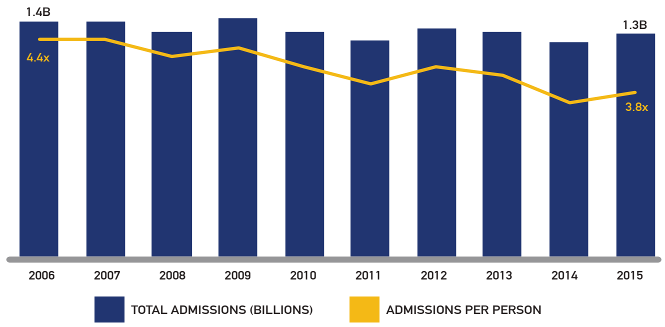
Not Academy Worthy

The North American motion picture industry is a prime example of how strategic decisions from the top of the value chain can trickle down and affect the end retailer. The top of the chain starts with production studios that release a majority of movies in the summer and holiday months, leaving low-budget independent films to be screened in the off-season.

This structure leaves the financial success of movie theatres heavily dependent on the success of blockbuster box office performance which can cause large volatility in theatre revenues. For instance, the summer of 2015 was a fruitful one for Hollywood as major films like Jurassic World, Inside Out, and Straight Outta Compton contributed to a total of $4.48 billion domestic box office, marking the second highest grossing box office performance in the history of cinema. Conversely, the summer of 2016 was a disappointing one with box office revenue declines of 22 per cent compared to 2015 due to underwhelming Hollywood sequel attempts and poor critic ratings. Compounding the movie industry's reliance on volatile blockbuster films is a declining annual ticket sales per person, which has fallen from 4.4 in 2006 to 3.8 in 2015.

Simply put, movie theatres are struggling to develop a sustainable business model to attract more attendees, in particular millennials who have chosen to rapidly adopt home entertainment services like Netflix. This is due to the personalization capabilities, content exhaustiveness, and affordable pricing that Netflix offers, compared to the traditional movie theatre and cable television experience. Capturing millennials is especially important as they are expected to have the most annual spending power out of any generational cohort at $3.39 trillion by 2018. In order for theatres to re-engage the valuable millennial segment, they must re-position their value proposition to maintain relevance in this generation's eyes. Currently, major players in the movie theatre industry have struggled to achieve this.

NORTH AMERICAN THEATRE ATTENDANCE



Source: Business Insider

Play Fights

Major movie theatre chains have attempted to combat the declining moviegoer interest by using a variety of unsustainable growth methods and lacklustre strategic decisions. Several attempts have been made to improve the theatre viewing experience in an effort to stimulate foot traffic. Internal developments include a push by major theatres to provide a "premium theatre offering" that operates with current offerings. Some examples include Cineplex's VIP Theatres and AMC's high-tech ETX theatres. Although the features range anywhere from "Breathtaking Sound" to "Incredible Screen Resolution", the intent is identical across competitors: to enhance the viewing experience and attract viewers.

With these premium features, theatres have experimented with tiered pricing strategies to increase the average margin per patron. The rationale here is that movies are priced based on supply-demand dynamics and the value of unique offerings like 3D or IMAX screens. A perfect illustration of tiered pricing is Paramount's $50-ticket package for the action movie World War Z, which included early screening in 3D and a digital download of the movie. While tiered pricing strategies can be used to unlock value for specific consumer segments, they are considered unsustainable for the long term.

Inorganic methods of solving the theatre attendance volume problem have also made headlines in the industry. Notably, AMC's pending acquisition of Carmike will make it the largest theatre chain in the United States. In this example, horizontal integration is used to increase market share. While this type of strategy is possible within the United States, the Canadian landscape only has one dominant player.

These attempts by major movie theatre chains to combat the declining moviegoer interest have been largely unsustainable. Although the addition of premium theatre infrastructure helps to justify ticket price hikes, movies are inherently a luxury good. As such, there is a ceiling as to how far ticket prices can be increased before loyal customers begin rejecting the theatre experience. Additionally, relying on growth by acquisition is also unsustainable, as it does not target the core issue of declining moviegoer interest.

Cineplex's Battle

One of the companies that has been employing these unsustainable growth strategies is Cineplex, the largest Canadian movie theatre company with an 80-per-cent share of the Canadian market. This large existing market share makes it unlikely that Cineplex will be able to grow through inorganic methods such as acquisition. Despite this, Cineplex appears to maintain the ability to grow revenues and profits with strong sales CAGR of 5.9 per cent and EBITDA CAGR of 5.7 per cent from 2011–15. However, this growth can be largely attributed to unsustainable ticket price increases and the growth of ancillary revenue streams.

Additionally, examining the demographic breakdown illuminates the negative effects of increasing ticket prices on the highly valuable millennial segment, which has experienced a significant decline at a -6.7% CAGR in attendance per capita from 2012–2015. Decreasing millennial theatre attendance can also be attributed to the meteoric growth of home entertainment services such as Netflix that have dominated this demographic.

Cineplex is operating at a critical juncture as it continues to invest in theatre infrastructure to marginally increase average ticket prices. Unfortunately, this strategy fails to capture the millennial segment, which will become the largest and most lucrative customer segment by 2018. Inaction may result in further millennial movie theatre churn at a rate that may soon become unsalvageable. Additionally, successfully capturing this generation will lead to decades of stable revenue as millennials displace older "Generation X" and "Baby Boomer" cohorts. While major competitors are cognisant of the importance of regaining millennial attendance, it will take much more than low-impact strategies such as tiered pricing to attract this unique generational cohort.

A New Age For Film

Born in the age of rapid digital change, the millennial cohort has a sharply different set of priorities and needs than previous generations. Millennials are the largest generation in North American history at a population of 92 million, 28 per cent larger than the baby boomer generation. As this generation begins to enter its prime earning years, this presents a unique opportunity for Cineplex.

When it comes to priorities, 78 per cent of millennials would choose to spend money on experiences rather than material things and 82 per cent currently spend money on at least one live event per year, ranging from concerts to festivals to sports events. The underlying theme is that millennials are invested in social and event-driven experiences which movie theatres are failing to provide with their existing infrastructure. This is illustrated by a research study that noted that only 10 per cent of millennials go to movies to connect with friends.

Empirically, millennial expenditure on movie theatres represents a small portion of their yearly media content budget. In fact, movie theatres only account for 10 per cent of annual media content expenditures, trailing Pay-TV at 42 per cent, music at 13 per cent, and video games at 13 per cent which dominate more of the average millennial media content budget.

Although millennials' values are rapidly shifting, Cineplex is doing little to accommodate these trends. Similar to its major competitors, Cineplex is primarily focusing on increasing the value of its least price-sensitive customers by providing premium services such as Cineplex VIP, 3D, IMAX, and preferred seating for an increased ticket price. Although this may increase the revenue potential of older customers aged 25 and older, this strategy does very little to attract millennials who are in search of social experiences and events as their peak spending years approach.

Feeding The Millennials

With a dominant 80-per-cent share over the Canadian theatre market, Cineplex owns 164 incredibly large retail spaces in prime metropolitan locations. However, a lack of focus on social experiences means that Cineplex remains unable to capture the millennial market.

In order to capture this lucrative market, Cineplex should transform into a food and beverage social destination where millennials can engage socially. Firstly, Cineplex's large atrium space should be leased out to local established restaurants in order to attract the high millennial spend on casual dining restaurants (CDR). Secondly, live sports content rights should be licensed and select theatre space should be renovated into a sports bar to offset the volatility of the blockbuster off-season months from September to April and appeal to the millennial spending preferences on live event experiences.

The systematic fit of full theatre restaurants and bars can be better understood with a wider lens on the typical moviegoer process. Movies are usually a component of a fairly interconnected social experience; a group's typical evening might consist of going to a restaurant before the movie and a bar afterwards. There are inherent logistics and planning difficulties associated with this social process: a group of friends must agree on a specific time and destination that fits with everyone's preferences and schedule. By offering an all in one package, Cineplex will be able to offer and capitalize on what the millennial segment is seeking – a more convenient and comprehensive social experience that is free of complicated logistics and planning.

Fortunately, the precedent to expand into the restaurant space has been proved by Nordstrom, a company that also depends heavily on retail space. "Nordstrom Restaurants" has more than 200 locations in North America and provides food services by leasing out retail space to existing restaurant chains. Cineplex should follow this same successful leasing strategy to reap the benefits of an established restaurant brand without losing focus on its core competency of providing media entertainment. In addition, Cineplex should collect a monthly percentage of restaurant sales per square foot, a commonly used financial metric in the food and beverage industry. Given this implementation, there would be significant strategic advantages for both parties: restaurants would be able to reap the benefits of theatre foot traffic and Cineplex would be able to position itself as a social destination with an established restaurant brand to attract millennials.

Increased foot traffic in the proposed Cineplex restaurant and bar space translates into higher movie ticket sales if significant crossover synergies can be realized. The average millennial visits CDRs such as Olive Garden 12 times a year as opposed to going to the movies a mere six times a year. If Cineplex can capture even a small percentage of millennial CDR foot traffic, this would skyrocket annual foot traffic for the business.

Happy Hours At Cineplex

On the beverage side, underutilized theatre space should be renovated with removable seats to transform into a full-service bar when needed. Design wise, pre-existing full length bars in Cineplex VIP Lounges will be moved directly under theatre screens similar to the Real Sports Bar & Grill floor design. Cineplex's current "VIP Cinema" expansion plan shows that the company already has the existing expertise and logistic operations to support a food and beverage service. In fact, food service revenues have grown to $418 million in 2015, 11.6 per cent higher than 2014, shows that Cineplex is already making effort to pursue this vertical. The average millennial spends 44 per cent of their food and drink budget or $2,921 eating out compared to only a $75 in annual expenditures at movie theatres. Evidently, with the right investments in offering a full-service bar, Cineplex can be well positioned to shift millennial spending and capture a greater portion of disposable income.

Secondary to this proposal is the streaming of live event content which is highly valued by the millennial segment. Particularly, major sports games should be licensed from the NBA, NFL, and NHL as the sports season falls within the blockbuster off-season months from September to April. Logistically, the NFL season runs from September to February, while both the NHL and NBA season runs from October to May. To mitigate the risks of unsuccessful content right negotiations, Cineplex has a precedent of successfully licensing sports content to host NBA and NHL "viewing parties".

By pursuing this strategy, Cineplex can strategically diversify its revenue segments to hedge against the volatile performance of Hollywood blockbuster seasons. Specifically, underutilized theatre space in poorly performing box office months can be transformed into sports-themed bars by leveraging Cineplex' pre-existing liquor licence and exhaustive content licensing relationships.

By investing in food and beverage offerings and live content streaming, Cineplex will be able to drastically enhance the social experience for millennials. In launching this new concept, Cineplex should transform a few of its theatres located in major commercial areas as a pilot program. It is important to note that while some theatres within a location may be transformed, others will retain the existing infrastructure to continue to appeal to the existing consumer base. If Cineplex is able to introduce this concept to half of its theatre locations by 2020 and begin to reverse the downward trend of millennial attendance, this would contribute an additional $330 million to the bottom line. In the long term, the proposed strategy provides three key advantages: increased growth, new profit opportunities, and business model sustainability.

Firstly, by reversing the declining millennial theatre attendance trend, this provides Cineplex with a significant foot traffic growth opportunity. Secondly, expanding into full-fledged beverage and restaurant integration provides new profit opportunities for Cineplex and helps enhance revenues in the blockbuster off-season from September to April. Lastly, the proposed strategy adapts Cineplex's business model into a sustainable one by shifting away from a pure-play movie theatre that depends heavily on Hollywood secular trends. Instead, it positions Cineplex into an all-in-one social destination for millennials to meet.

Clearly, only the movie theatres that are able to understand millennial preferences will be able to capture this generation's anticipated record-breaking spending power. Perhaps the key takeaway is that a company that is heavily exposed to the cyclical booms and busts of an industry like cinema must incorporate revenue diversification as part of its long-term strategy.

RESTAURANT DESIGN IN ATRIUM VS. SPORTS BAR DESIGN IN THEATRES

Source: IBR Analysis

SILVER WHEATON: UPCOMING GOLDEN AGES

A new fund to provide financial flexibility to increase stream acquisitions in times of high leverage

Nicklaus McGonegal

What Streams Are Made Of

Stream financing, or streaming, is used to provide capital to mining companies, often to accommodate the construction of mines or, in recent occurrences, to reduce debt levels in exchange for interests in the future production of the mine. This style of financing allows mining companies to receive an upfront, one-time payment in addition to ongoing payments at a fixed price per ounce on a portion of the mine's production. A similar type of financing is a royalty, where a mining company receives an upfront, one-time payment for a portion of the mine's net revenue, commonly known as a net smelter return (NSR).

With a fall in precious metals prices during 2015, mining companies saw depressed earnings. Subsequently, investors, specifically on the credit side, began to lose their appetite for financing miners. In turn, the global metal streaming and royalty industry experienced a record year. The number of streaming and royalty transactions increased from 11 in 2014 to 27 in 2015 with deal values increasing three-fold to $4.0 billion. This industry boom spurred fierce rivalries among streaming companies in unanticipated and competitive bidding processes, predominantly due to the recent introduction of alternative buyers of streams, including mining-focused private equity firms, pension funds, hedge funds and smaller streamers through the use of syndicates. Moreover, with this increase in both the number of transactions and the value of the deals, some streamers are facing difficulties in financing the potential acquisitions of streams as debt levels rise and companies exhaust equity offerings. With the increasing competitiveness of the industry and limited financing flexibility, streamers like Silver Wheaton Corp. could cease to exist in the industry they worked to create.

Tremendous growth in deals has led to the entry of diverse competitors including mining-focused private equity firm X2 Resources, with a fund of US $5.6 billion, hedge fund Elliot Management, backing Triple Flag's billion-dollar fund, and state-owned investment funds like China's Silk Road Fund, with $40 billion in capital. These entrants are few of a growing number of players in the streaming and royalty industry. Investment funds, with an abundance of capital from individual investors and smaller funds, are beginning to make active moves in the industry such as Pretium Resources Inc.'s US $150-million stream sale to private equity firms such as Orion Resource Partners and Blackstone Group in September 2015. A finite number of streams and the competitive nature of bidding processes mean an increase in players alarming for even established firms like Silver Wheaton.

A Golden Opportunity

Silver Wheaton faces a particularly unique challenge as it is one of the most levered streaming companies compared to large competitors. It must continue to finance acquisitions while remaining competitive with new entrants.

Streaming companies typically finance the acquisition of streams using traditional financing, a combination of cash and debt. Cash can be generated through ongoing operations or raised through previous or concurrent equity offerings. Silver Wheaton's unique challenge resides in the company's ability to consistently and sustainably secure financing for stream acquisitions. As of Sept. 30, 2016, the company has $1.3 billion in total debt due to a recent $800 million stream acquisition in August. With total debt-to-capital of 21.32 per cent, compared to the average of top five streaming companies at 9.53 per cent, Silver Wheaton is more highly levered than its peers and could face difficulties going forward in securing public and bank debt.

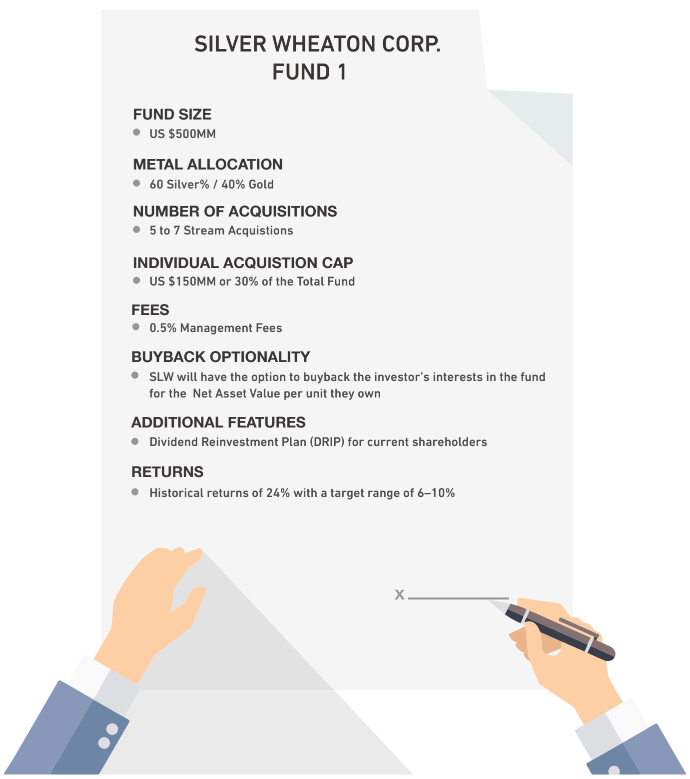
Silver Wheaton, however, has performed well over the past 10 months as precious metals prices have risen, lifting its share price 44 per cent YTD, following a 25 per cent decline after the announcement of third quarter results. The company capitalized on this performance with a $500-million equity offering in March 2016, using proceeds to pay down debt, the second follow-on offering in the past 18 months (previous offering in March 2015). Despite strong investor appetite for the offering, with underwriters exercising the 15 per cent over-allotment, it is unlikely Silver Wheaton will access the equity markets in the next several months given its recent trend of March offerings. This is largely a result of a recent 25-per-cent decline in the company's share price, dampening investor sentiment and disincentive follow-on offerings at the current share price. Moreover, Silver Wheaton has experienced difficulties in the past with a lackluster $800 million bought deal offering in March 2015, with sources reporting that the initial three per cent discount offering was only one-third sold until the underwriters re-priced to a substantial 11 per cent discount. Continued equity issuances can have a dilutive effect on shareholders' equity, straining Silver Wheaton's future financing flexibility.

Silver Wheaton is also challenged by limited financing flexibility. To combat these issues, it should look to adopt an alternative financing method that allows itself to position as a direct competitor to streaming-focused investment funds. Under this strategy, Silver Wheaton would create a $500-million fund, Fund 1, that would be exclusively used to finance the acquisition of approximately five to seven streams in the coming years. Investors would commit capital towards Fund 1 and receive a specific percentage of each mine's production based on the allocation of stream financing from Fund 1 used in the acquisition, as well as the investor's initial investment.

NAV-igating The Future

Silver Wheaton would structure Fund 1 similar to that of private equity funds, targeting alike investors including

SAMPLE FUND CONTRACT



Source: IBR Analysis

high-net-worth individuals, wealth managers and small pension funds. Fund 1 would also target current shareholders through a dividend reinvestment plan that would allow quarterly dividends to be committed to Silver Wheaton's next fund. As opposed to typical private equity funds with approximately two per cent management fees and a locked-in commitment, Fund 1 will be vastly different with 0.5 per cent management fees and the introduction of a buyback option to provide further liquidity from an investor perspective. With this option, Silver Wheaton would have the ability to buy back each investor's interest in Fund 1 for the Net Asset Value (NAV) per unit sold to them. This would allow Silver Wheaton to gain further exposure to the funds' mines, and allow investors to liquidate their position.

The fundraising process would begin with Silver Wheaton strengthening relationships with small-scale pension funds, asset management funds and wealth managers to attract capital. It would also begin the outreach process with existing shareholders and high-net-worth individuals to redirect capital flowing into the investment funds to Silver Wheaton's Fund 1. Despite the long-term nature of most fundraising processes, Silver Wheaton's experience within the streaming industry would imply a shorter fundraising timeframe, likely in the 12-month range.

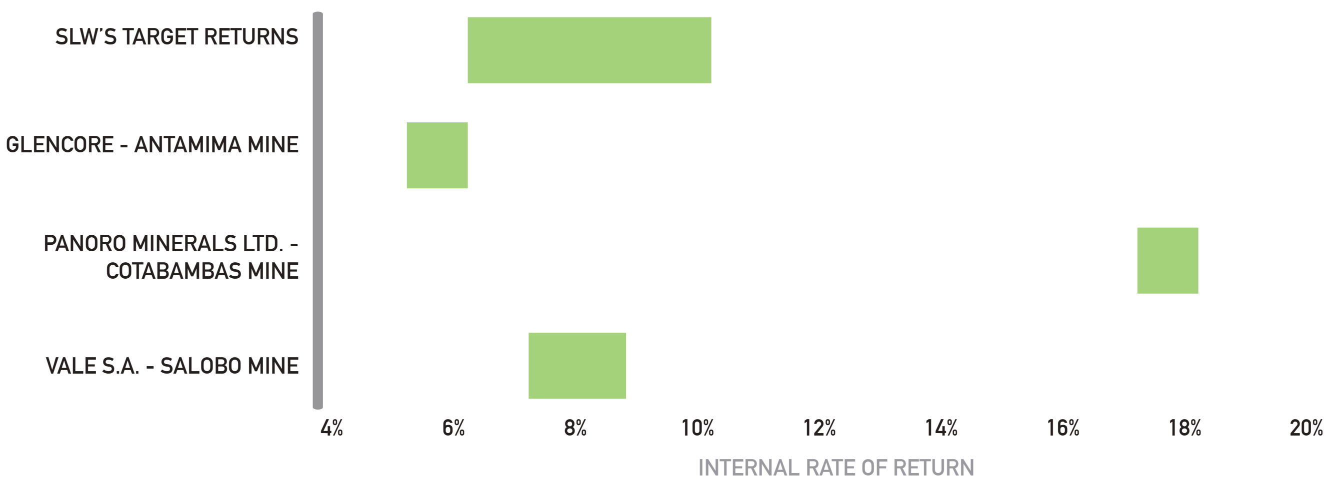
Fund 1 does not aim to provide immediate financing flexibility. Instead, it aims to supplement traditional financing within one year by providing sustainable and consistent capital for stream acquisitions throughout a one- to three-year period. With increasing debt levels, the unpredictability of the equity markets and Silver Wheaton's share price in twelve months' time, stream financing allows Silver Wheaton to remain competitive in each bidding process with continued access to capital.

Silver Wheaton's fund strategy will focus on maintaining its current metal allocation of 60 per cent silver and 40 per cent gold. Silver Wheaton will look to strengthen relationships with major mining companies with solid credit ratings, a long-term strategy of debt reduction and high quality assets in stable, mining-friendly jurisdictions. The fund will aim to deploy capital across five to seven stream acquisitions with fund contributions less than $150 million (30 per cent) per acquisition to reduce portfolio risk. For example, this could involve partaking in approximately two transactions in each of the $100-150 million range, $75-100 million range and $25-75 million range.

Due to the long-term investment horizon in the industry of 10 to 20 years and unclear or non-existent exit strategies, streaming returns are often unavailable, undisclosed or projected based on a number of operating assumptions provided by the seller and mining technical team. Additionally, the very recent entrance of streaming-focused investment funds leads to a limited number of transactions that have been completed and returns have yet to be realized. As a result, Silver Wheaton may face difficulty in marketing the fund using realized returns in the streaming industry. CEO Randy Smallwood has stated the historical rate of return for Silver Wheaton's investments has been 24 per cent, which provides substantial returns for both the company and investors. Further, Silver Wheaton will rely on previously projected returns from their past three acquisitions, which range from a rate of return of five-17.5 per cent, as well as the company's target range of six-10 per cent.

The primary benefit to investors is the stability of the cash flow from the streams. This provides investors with fixed income like cash flow generation for a long-term period with a targeted rate of return between six per cent and 10 per cent. Investors also benefit from this fund through

SILVER WHEATON'S AVERAGE RETURNS ON 2015 AND 2016 ACQUISITIONS

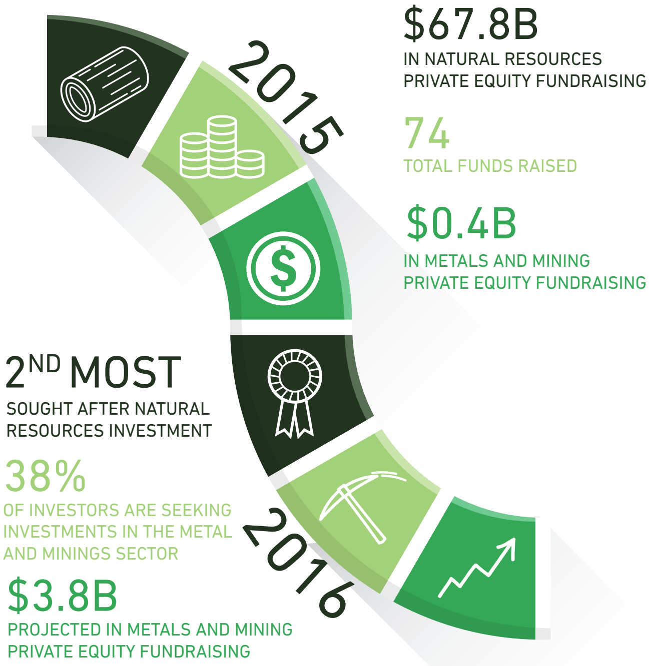


Source: IBR Analysis

the diversified investment offering, technical knowledge of Silver Wheaton, and the unique structure of the fund. By investing in Fund 1, investors would diversify their portfolio with a geographically diverse set of streams from major mining companies, commodity leverage through price fluctuations and production exposure to each mine. Investors gain access to Silver Wheaton's technical experience in the streaming industry, serving as a unique competitive advantage to alternative investment funds with limited transaction and relationship experience. Further, the structure of Fund 1 provides investors with above-average returns, a stable stream of cash flows, low management fees and a buyback option for increased liquidity.

Fund 1 also benefits Silver Wheaton by being able to strategically position itself to compete directly with investment funds for capital, targeting alike investors in an attempt to redirect capital into its own fund as opposed to other investment funds. This strategic positioning resolves the secondary challenge of consistently and sustainably securing financing for acquisitions. By providing a unique alternative form of financing, the company will expand its financing options and can achieve further flexibility moving forward in this increasingly competitive industry. Silver Wheaton's shareholders also benefit from the non-dilute nature of this solution, since raising more equity to finance future acquisitions could dilute shareholder value. The raising of a fund may signal that Silver Wheaton has strong interest in acquiring several new streams, leading to investor confidence and share appreciation and benefiting shareholders.

INDUSTRY AT A GLANCE



Source: Preqin & Mining.com

Striking Gold

In line with the fund strategy, Silver Wheaton should look at purchasing high quality gold or silver assets operated by major mining companies. In focusing on mining companies with debt reduction strategies, most notably Vale and Glencore, Silver Wheaton can foster and maintain a long-term relationship with further acquisitions under the fund. For example, currently on the market is Glencore's Vasilkovskoye mine in Kazakhstan, a producer of numerous minerals. The Vasilkovskoye mine, valued at $2 billion, has been on the radar of numerous streamers and investment funds, specifically China's Silk Road Fund and provides a potential stream acquisition in the neighbourhood of $500 million. Despite significant potential demand for the asset, the mine has been on the market since the beginning of the year, mitigating the risk of overpaying. An acquisition like this for Silver Wheaton would use a combination of traditional financing, typically debt and cash, and alternative financing with approximately $150 million from Fund 1. Although the debt financing will increase leverage, it will only increase moderately due to the use of Fund 1 and will fit within the company's revolver.

A Stream Come True

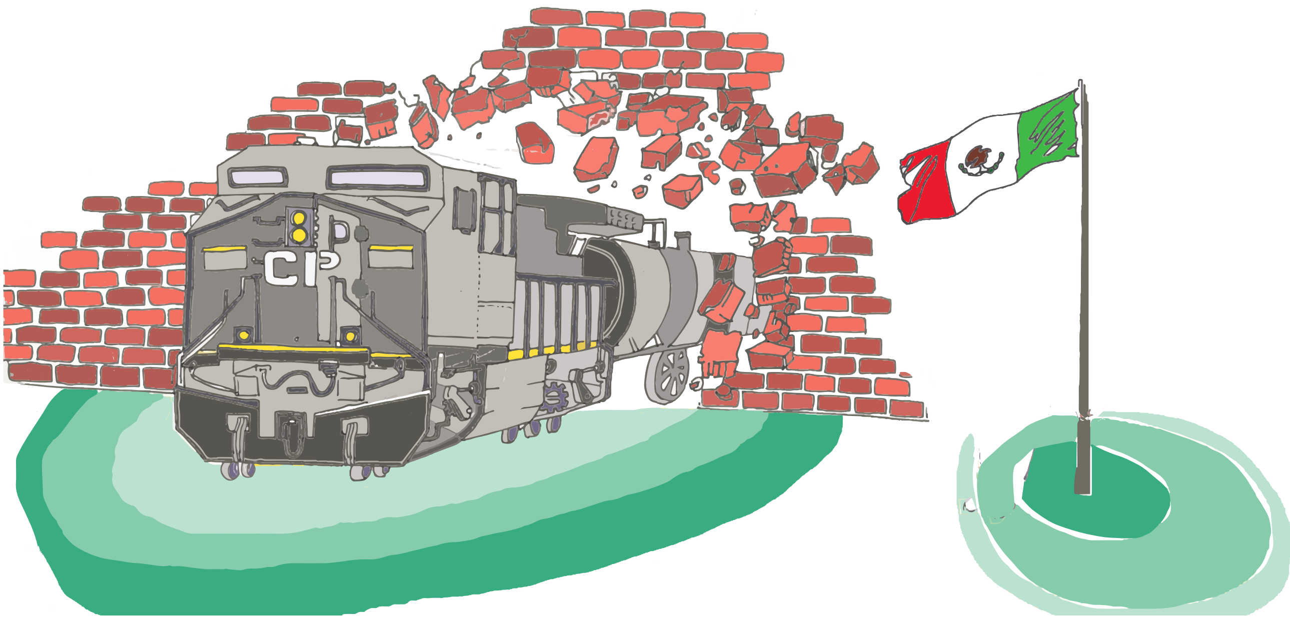
With the addition of an alternative form of financing for Silver Wheaton through the establishment of Fund 1, the company would be able to strategically compete with new entrants and benefit financially with consistent and sustainable financing. Private equity fundraising for natural resources increased to a record high in 2015 with 74 funds raising a total of $67.8 billion. Despite the metals and mining industry only closing two funds in 2015 and raising a total of $400 million—likely due to suppressed base and precious metal prices—metals and mining is the second most sought-after natural resources private equity investment. In 2016, 50 per cent of investors are seeking investments in the sector, while mining-focused funds are looking to raise $3.8 billion. Given the expected increase in mining-focused private equity fundraising, recent increases in precious metals prices and the unique use of streaming-focused private equity, Silver Wheaton will have the scale to sustainably source capital for Fund 1.

With the strategic positioning of Fund 1 to compete with streaming-focused investment funds and the additional capital to support future stream acquisitions, Silver Wheaton has the ability to remain one of the streaming industry's dominant players.

CANADIAN PACIFIC RAILWAY: **AVOIDING A TRAINWRECK**

Horizontal integration can bring new life to Canadian Pacific

Harrison Pencer & Dylan Shiffman

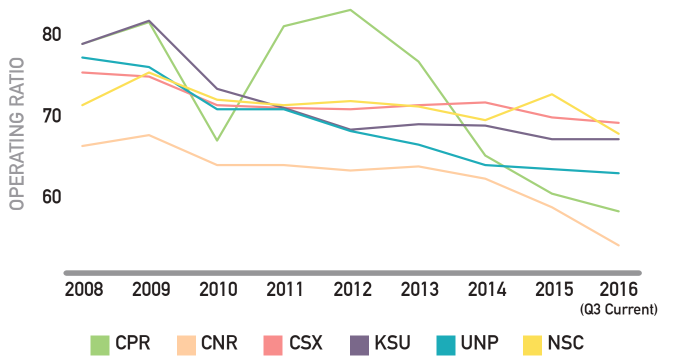


Trainwreck

There are two class-one railways in Canada—Canadian National Railway (CN) and Canadian Pacific Railway (CP). Classes are categorized by revenue, where class-one railroads represent the largest of the railroads. However, the competitive landscape of the industry has historically been one-sided. Formerly a crown corporation, CN was able to invest in infrastructure with government funding, and another cash infusion from its 1995 privatization allowed CN to further develop its infrastructure. Consequently, CN has long dominated long-haul transportation of goods across Canada. Competition has been tense, with both companies continuously making operational improvements. However, CP has never been able to catch up to CN, which now operates Canada's largest and most expansive transnational rail line. CN has positioned itself well as a premier North American railway and the only one connecting Atlantic Ocean, Pacific Ocean, and the Gulf of Mexico. CN has had an industry leading operating ratio (operating costs divided by revenue) of 53.3 per cent in its most recent quarter. CP, on the other hand, has seen its revenue decline by 9.0 per cent year to date while lagging behind CN with an operating ratio of 57.7 per cent.

In order to compete, CP feels it has to take significant strategic action to compete with its sister railway, and has attempted acquisitions of two American railways. The two targets, Norfolk Southern Railway and CSX Transportation, are the two largest railways east of the Mississippi river, and thus the acquisitions faced heavy antitrust opposition. As a result, both acquisitions failed, leaving CP struggling to get ahead. Route expansion is highly attractive for railways because it provides access to business from both

INDUSTRY OPERATING RATIOS



Source: Bloomberg

existing clients looking to transport to new locations, as well as clients from the new locations looking to transport to locations within the existing network. However, organically expanding existing routes may face issues of saturation—having multiple railways between the same locations, difficult regulatory approval, high and uncertain investment costs, and lengthy development. A successful acquisition, on the other hand, would bypass these issues. If CP can integrate the railway network and clientele of another major railway into the existing business, CP may finally realize the level of revenues and profitability it has been struggling to achieve.

Mapping The Routes

Railway companies in both the United States and Canada haul commodities and other items including grain, coal, crude oil, chemicals, plastics, and manufactured goods such as car parts and finished automobiles. These products are carried from their origins to markets all across North America. Railways are affected by the value of the commodities they transport which affects both the quantity the railroad can transport and the price they can charge. In general, transportation from Alberta to the Gulf Coast by rail cost around US$16-20 per barrel, while transporting crude oil the same distance by pipe would cost US$7 per barrel. Crude transportation by rail in Canada was historically viewed as an alternative to pipeline transportation and an attractive option given its insurance against pipeline constraints. However, with decreased oil prices and increased capacity from pipeline construction, the unit economics for transportation by rail have become less attractive. With producers opting for the cheaper pipeline alternative, there is an increasing need for rail operators to diversify their operations to different sectors.

Along For The Ride

CP has a market capitalization of US$20.7 billion as of January 2017, which has grown significantly during the past five years through significant share price appreciation. This success hasn't been without significant challenges however.

From an infrastructure perspective, CP deals with handicaps that hinder its ability to run at competitive speeds. CN can achieve greater train speeds and frequencies than CP because it has implemented passing sidings every 15 miles - nearly half that of CP. Passing sidings allow for trains moving in opposite directions to pass or higher speed trains to pass lower speed ones. Moreover, on the critical Vancouver to Alberta route, connecting Canada's biggest port to the rest of the networks, CP's southern route to Calgary has significantly more curves in the track and faces higher grades (inclines) than CN's route to Edmonton. CN's straighter, flatter track allows it to travel at higher speeds and burn less fuel than CP, keeping its costs lower and allowing it to be much more competitive in the industry. These disadvantages have eaten at CP's operating ratio historically, limiting its ability to fund significant investments in its infrastructure and overcome its inherent disadvantages. Even with these changes however, CP was not living up to its full potential and it took a leadership change to unlock its hidden potential.

In 2011, activist investor Bill Ackman's hedge fund, Pershing Square, began purchasing shares in CP Rail. By 2012, Pershing Square was the company's largest shareholder. Ackman hired former CN CEO Hunter Harrison to lead CP. Under Harrison's leadership, the company was able to improve volume growth by investing in crude oil, bolstering capacity, and mitigating the geographic setbacks of the CP network through investment in infrastructure. In addition, management has been skilled in operating in an unfavourable energy environment. In Q3 of 2016, CP managed to achieve a net income of $347 million on $1.55 billion in revenue, and maintain a YTD operating ratio of 59.5 per cent compared to 60.0 per cent in the previous year's first three quarters. These significant operational improvements have not been enough for CP. In order to overcome its inherent disadvantages, CP has felt the need for continued scale to compete with its rival CN. In 2014, the company tried and failed to purchase the Florida-based railway CSX and again in 2016, CP made a failed offer to buy Norfolk Southern Corp. Both offers failed amidst antitrust scrutiny from the Obama administration's Department of Justice and the Surface Transportation Board on account of CSX and Norfolk Southern dominating rail transport in the eastern United States.

Even though the deals with CSX and Norfolk Southern have failed, this does not mean that CP has hit a dead-end in its tracks. Instead, CP should acquire the Kansas City Southern Railway (KSU), allowing CP to compete with CN on routes to the Gulf of Mexico, and become the only railway serving three North American countries.

Though past proposals have suffered from regulatory backlash, this proposed merger is different. First, CP and KSU are the two smallest class-one railroad companies in North America. Further, combining both companies would allow them to expand their capabilities and compete with the larger players using complementary networks, whereas other prospective buyers would effectively eliminate competition through substantial network overlap. CP-KSU also stands to see combined revenues of $9.1 billion and an operating ratio of 56 per cent if the combined entity could cut operating costs by 10 per cent through eliminating redundancies and realizing economies of scale and integration.

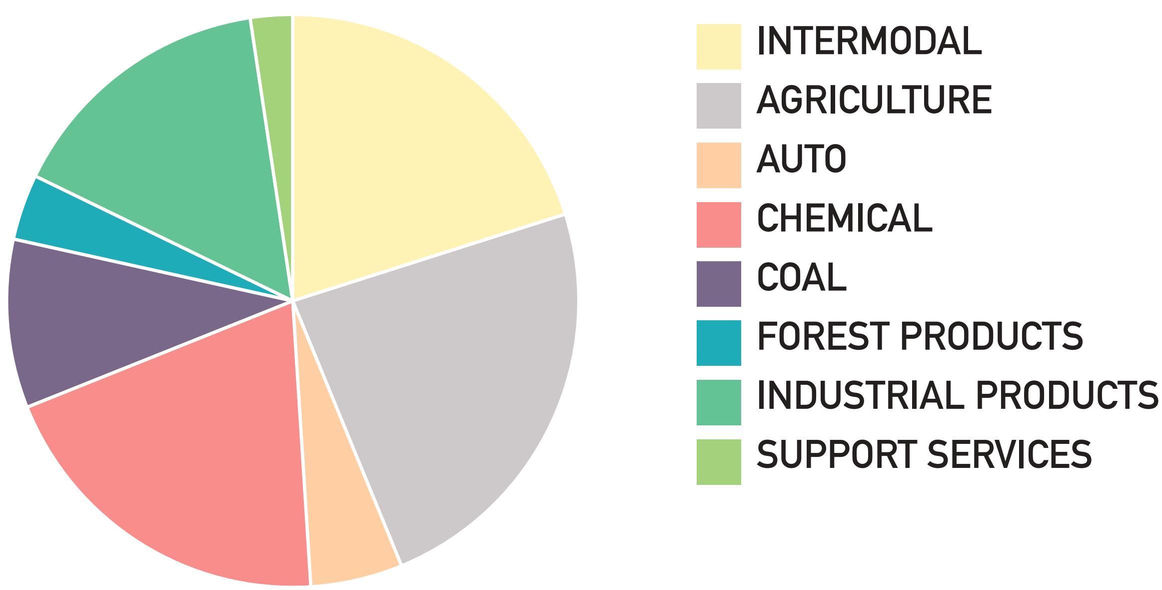
On New Tracks

With news of Donald Trump becoming the President-Elect, investors heavily shorted the peso and Mexican-exposed stocks with the expectation that Trump's protectionist trade policies and anti-Mexican rhetoric would discourage US-Mexico trade. KSU, with 48 per cent revenue exposure to Mexico, suffered a stock price fall of 14 per cent as investors priced in the geopolitical risk.

A merger between CP and KSU will diversify combined entity shipments. KSU has the immense opportunity of being able to access the large shipments of grain that CP exports, at roughly 16 per cent of their total shipments. Meanwhile, CP can take advantage of KSU's heavy focus on industrial/consumer goods and chemical/petroleum-making up 23 per cent and 20 per cent of their total revenue respectively. Also, the post-merger will see their geographic reach increase. CP's 12,500 track network is comprised of 7,600 miles across Canada, with 4,500 miles in the U.S. Midwest and 400 in the U.S. north east. Meanwhile, KSU has 3,400 miles of track across the U.S. Midwest and southern U.S., including 635 miles of trackage rights that permit KSU to operate trains over other railroads tracks. Moreover, KSU has 3,200 miles in Mexico with an additional 550 trackage rights.

Through the expansion, CP will have a newfound access to the Mexican corridor and the Southern US. Meanwhile, KSU will benefit from new shipments coming through the Midwest and Canada - something they previously fell short on. From a geographic perspective, the deal diversifies their routing options. However, the success of this strategy is contingent on the import and export outlook of Mexico and the U.S. going forward. Currently, Canada's main exports to Mexico are transportation and

CPR REVENUE BREAKDOWN



Source: Canadian Pacific Railway

agricultural products, while Mexico's main exports to Canada are machinery and transportation equipment. While there is uncertainty with what could happen with NAFTA if a deal between Canada and Mexico was formed, it would promise to bring increased trade. This would allow CP and KSU customers to take advantage of streamline trade and would allow KSU to increase its automobile trade between the auto factories in Mexico and with the factories in Canada.

Reach Across Countries

If CP acquires KSU at a premium of 20 per cent, this implies a per share value of US$143. The acquisition would be carried out using 95 per cent equity and five per cent debt. For the deal to be accretive, CP needs to realize breakeven synergies of US$120 million in 2017. Overall, this represents a 1.3-per-cent improvement in the operating ratio of the pro-forma entity. Given the opportunities for cost synergies from the scalable nature of the rail network, operational efficiencies from a connected line from Canada to Mexico, and the revenue opportunities from the increased geographic and sector diversification, it is likely CP will be able to achieve these targets. This is especially the case given CP's recent remarkable improvement in operational efficiency. Overall, an acquisition of KSU is attractive from both a qualitative and quantitative standpoint for both management and investors.

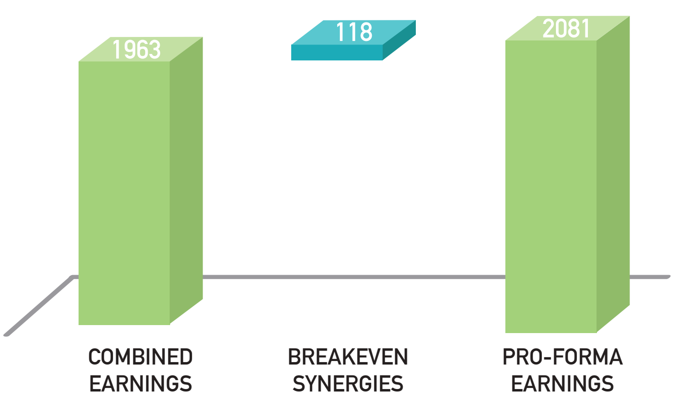
The key risks for this acquisition fall into two categories: antitrust risk and political risk. First, CP's previous attempted acquisition of Norfolk Southern Corp. (NSC) was faced with antitrust concerns from the Obama administration. An acquisition of KSU may also face similar concerns. However, a major differentiation is the size of the two companies. NSC's market cap of US$23 billion at the time of announcement is significantly larger than KSU's market capitalization of $9 billion. Antitrust laws exist to promote competition. With KSU's smaller market capitalization and status as one of the smallest class-one railways, it is unlikely for an acquisition of KSU to be considered detrimental to competition.

Second, the proposed merger is sensitive to sovereign trade policy within Canada, the U.S., and Mexico, as the post-merger entity would be significantly exposed to trade between the NAFTA countries. Though policy has been consistent throughout the past decades, Trump's recent electoral victory threatens to upend the established North American order. Trump's protectionist campaign promises, if carried into law, would materially discourage trade and transportation between NAFTA countries. Declining trade between Mexico and the U.S. would negatively impact KSU' Mexican infrastructure. However, this decline may allow for Canada to become a partial offsetting substitute for Mexican exports, a scenario wherein the proposed combined company would possess a uniquely valuable Canada-Mexico infrastructure network.

> *"CP Rail will be able to reach new heights with the Kansas City Railway as part of its network."*

CP Rail will be able to reach new heights with the Kansas City Railway as part of its network. This deal can put CP closer towards meeting its full potential. For CP, this deal can result in new cost synergies, a diversified revenue stream, and access to a completely new market. CP will then have access to the same American markets as CN, but with a Mexican advantage that CN will never be able to replicate. Overall, the deal will enable CP to better compete in the changing rail landscape and begin laying the groundwork for long-term success.

BREAKEVEN SYNERGIES



Source: IBR Analysis

SPOTIFY: **STEPPING TO THE RIGHT BEAT**

Incorporating blockchain for Spotify's payments positions it as an industry leader fighting for artists' livelihoods

Ajith Sukumar & Wade Timchuk

Spotify's First Move

The music production market has historically been an oligopoly dominated by four key players: EMI, Warner Music Group, Universal Music Group (Vivendi), and Sony collectively command 70 per cent of the market. Because of this power, artists are at the mercy of their record labels. For example, it often takes months before artists receive payment for their work, making it difficult for them to sustain themselves financially. Artist compensation is, in essence, a black box. Moreover, artists have also complained about a lack of creative control and exploitative contracts. As a result, music icons like Prince have heavily argued for young artists to avoid record labels, comparing them to "indentured servitude." Yet, artists have traditionally relied on these labels to provide marketing and large-scale distribution.

Spotify was launched in 2008 and was a pioneer in the music streaming movement that disrupted the industry. Growing rapidly during its first decade of business, Spotify currently reaches over 100 million users, of which 40 million are paid, and provides access to more than 30 million songs. This disruptive distribution platform has benefited artists immensely, as they are now able to reach 100 million potential listeners instantly, rather than relying on record labels to market and distribute their catalogue.

Freely Expressing Music

Despite its rapid growth, Spotify has faced serious challenges en route to becoming the leader in music streaming. In recent years, there has been an influx of competitors including Apple Music, Tidal, Google Play, and YouTube Red. Many of these new entrants only offer their services to paid users, allowing them to pay artists significantly more than Spotify can. For example, Spotify pays artists anywhere from four to 20 times less than Tidal does, increasing the financial burden on artists. In fact, artists would need their

songs to be streamed more than 1.1 million times on Spotify just to earn the U.S. monthly minimum wage. This has caused artists like Taylor Swift to publicly criticize Spotify, and subsequently remove her music from the platform in 2014. Instead, Taylor Swift signed an exclusive deal with Apple Music, similar to how Rihanna and Kanye West have released exclusive content on Tidal. As a result, these competitors have been able to create a competitive advantage by securing content exclusivity with major artists, driving consumers to their platforms.

The root cause of this discrepancy in royalty payments is Spotify's freemium model. Artists earn five times less for a stream from a free subscriber compared to one by a paid subscriber. For this reason, Spotify has faced pressure from numerous artists to abandon the freemium model. Additionally, investors have questioned the viability of the freemium model from a financial perspective. Spotify mainly generates revenue from subscriptions paid monthly, and must pay royalties for each stream played. Thus, it is financially straining when its 60 million free subscribers outnumber the paid ones. This is especially evident when analyzing speculators' prospective financial statements for Spotify, which show that of the $2.2 billion of revenue Spotify earned last year, the company paid out $1.8 billion in royalties. Despite its rapid growth over the last decade, Spotify has been unable to turn a profit, with people speculating that they most recently lost $194 million last fiscal year.

Yet, the ability to stream for free has been one of the main reasons behind Spotify's success. Its 100 million subscribers significantly outnumber Apple Music's 17 million subscribers and Tidal's 4.2 million, where paywalls limit user trials. Thus, while there is currently debate over Spotify's freemium model, the company should preserve it to keep its user base size. Instead, Spotify should look to use the blockchain to appeal to artists without hurting user growth.

Reaching The Audiophiles

In the short-term, Spotify can leverage the blockchain to disintermediate the middlemen in its complex ecosystem. The intermediaries can be illustrated by following the two streams of cash that Spotify pays out. The first stream goes through the middleman to the artist and their supporting team which includes the production team, engineers and managers. The middleman is the traditional record label who, in turn, provides anti-piracy, distribution, marketing, and tour support services. In return, the label

receives a significant portion of the payout from Spotify. The second stream goes through another intermediary to the songwriters and composers. The intermediary here is Performing Rights Organizations (PROs), which collect revenues from vendors who want to use copyrighted works publicly such as restaurants and bars.

For example, for the Whitney Houston song "I Will Always Love You," one stream goes to Sony, the record label, while the other ultimately goes to Dolly Parton, the songwriter. Whitney Houston, the artist, waits to be paid at the end of the line after the record label. Even on Spotify, artists do not know when they will be compensated for their work, since the payment goes through the record label as an intermediary. Although Spotify should disintermediate the record label in the long-run, this would currently be difficult to implement in the short term. First, the distribution rights the record labels hold would prevent artists from replacing the record labels with another service. In addition, record labels play a big role in the artist's other offerings, such as tours, which would present a logistical issue if removed.

Currently, Spotify pays $120 million annually for third-party vendors to handle the transactions between it and the two middlemen previously discussed. One of these vendors is Adyen, a billion-dollar company which identifies the recipient of the payment and distributes said payment. However, even these third-parties do not have enough resources to accurately comb through 30 million songs and find the correct information. As a result, not only is the $120 million that Spotify currently pays not going towards a service that is fully capable of handling Spotify's streaming data volume, but it is also eating into Spotify's profits. By introducing blockchain technology to handle these payments, these transaction fees could be replaced by the cheaper variable costs associated with the smart contracts.

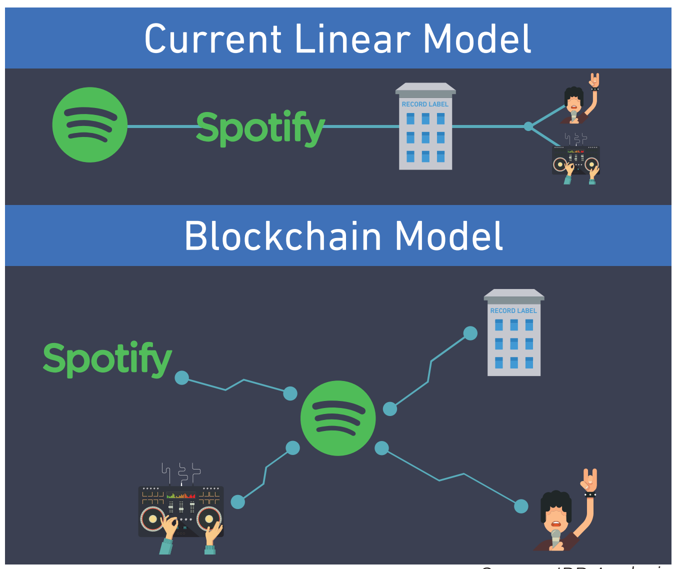
Spotify can use smart contracts through blockchain to remove the third-parties currently in charge of handling payments. By doing so, Spotify can improve its bottom line with a solution that scales with their growth as a company, freeing up cash to pursue long-term growth.

Getting Smart About Contracts

Blockchain is a data foundation that constructs a digital ledger of transactions which are then distributed amongst a network of computers in real time. The value in blockchain is its ability for network participants to reach consensus without a middleman or centralized authority. This can be illustrated through a simplified case example in the financial services industry. Historically, all pending transactions were posted to a clearing house's centralized ledger, where they entered an approval process lasting multiple days. In return for its work, the clearing houses were rewarded with significant fees. However, by leveraging blockchain technology and its decentralized ledger, these clearing houses become obsolete, significantly lowering transaction times and cost for all parties involved. Furthermore, transactions across a blockchain have the potential to do much more than simply transfer currency. They can also entail distribution of property rights, personal information, financial assets, and rights to physical assets, leading to heightened interest by financial institutions.

With the framework of the blockchain set out, innovation over time has enabled new applications to be created on top of the platform. Of these applications, Smart Contracts by the Ethereum Network has the greatest potential. A smart contract is one written in code to execute a certain task. These contracts are secure since they are coded directly onto the blockchain and cannot be tampered with. For the music industry, the information in current contracts between artists and record labels could be transferred to smart contracts. This would include details on when artists receive payment, and from whom. Although this would require an investment of time, this information is readily available from the record label and the artist, both of whom would be eager to provide said information if it ensured fair compensation. Blockchain technology would allow Spotify to disintermediate the third parties that it currently relies on. Additionally, Adyen currently handles payments in multiple currencies across a wide swath of geographies. Blockchain technology would enable a standardized cryptocurrency that can then be converted into any form of payment. Lastly, this would empower artists by allowing them to directly monitor their compensation in real-time.

PROPOSED SPOTIFY BLOCKCHAIN MODEL



Source: IBR Analysis

Stepping To The Right Beat

Currently, one revenue stream flows to the major record label, which is then distributed to artists, producers, band members, etc. This situation leaves the major record labels in a position of power, jeopardizing the artist's livelihood as record labels are free to distribute revenues within whatever timeline they see fit. By utilizing smart contracts that have these pieces of information built in, revenue is instead allocated on a stream by stream basis to each member of the distribution chain, thus shifting the power away from the record label and empowering the artist. This would create a unique competitive advantage for Spotify over Apple Music and Tidal, opening the door for content exclusives. Ultimately, Spotify could increase the value it offers artists without threatening its freemium model.

Spotify posted more than $2 billion in sales in 2015. Only 10 per cent of this came from free subscriber advertising, while the remainder came from paid subscriptions. 83 per cent of this revenue is then spent on what Spotify calls the "Cost of Revenue" which includes royalties, distribution costs and processing fees. As a percentage of revenue, royalty payments constitute 79 per cent whereas other distribution costs are six per cent. The implementation of blockchain would reduce this six per cent distribution cost, or $120 million, while increasing the timeliness of distributions.

The estimated fixed cost investment for Spotify is approximately $10 million. This was based on the amount a bank recently spent when they implemented blockchain technology to handle their $12 billion in yearly payments with an average payment size of $6,300. The variable costs on a per-stream basis would be $0.0009, resulting in $36 million. These costs include the execution and maintenance required for events such as new song and album releases. The cost of execution was calculated by determining the amount of Gas required to run a smart contract, where Gas is the internal pricing for running a transaction or contract in Ethereum. These costs were derived from the average Gas consumption of a similar blockchain running smart contracts. As a result, the overall savings is estimated to be approximately $74 million per year.

A Better Tune

Spotify's first step to achieving profitability should be to implement the internal blockchain in order to disintermediate its third parties. This not only achieves cost savings, but also empowers artists by taking control of compensation away from record labels. In the long-term, Spotify should boldly disintermediate the record labels altogether. It was previously mentioned that Spotify pays one of the lowest rates to artists in the industry. However, the root cause is arguably not because of Spotify, but because of the record labels. Last year, Spotify paid $1.8 billion in royalties, more than 10 per cent of the record industry's worldwide revenue. Yet, an Ernst & Young study showed that labels keep 73 per cent of these royalties, with artists receiving only 10 per cent. Thus, Spotify would be able to transfer an immense amount of value to artists by disintermediating the labels.

Labels received an estimated $1.3 billion from Spotify last year. Should Spotify be able to remove this middleman, the company can pay its artists an incremental $0.066 per song stream, almost ten times what Tidal currently pays. Even if it splits this 50/50 with artists, it would be able to become the industry leader in artist compensation, by far. The 50 per cent retained by Spotify would increase operating profit by $660 million, allowing the company to become profitable.

> *"Spotify can leverage the blockchain to disintermediate the middlemen in its complex ecosystem."*

Spotify's payments to artists have historically gone through several intermediaries and service providers, such as record labels and payment processing services. An implementation of blockchain technology has the potential to increase transparency and allow for more direct payments rather than going through middlemen. This alternative is attractive to both artists and Spotify. On one hand, artists benefit from the increased timeliness and transparency of their revenues. On the other, Spotify stands to increase their operating profit with a less significant burden on the payment transaction side.

By doing so, Spotify would become an artist's first choice for content distribution. Combining these capabilities with Spotify's base of 100 million subscribers worldwide, Spotify would not only be positioned as the leader in music streaming, but also emerge as a leader in the music industry of tomorrow.

UBER: THE SELF-DRIVEN ROAD TO SUCCESS

Grasping Uber's financing needs before a full launch into driverless vehicles is critical for upcoming years

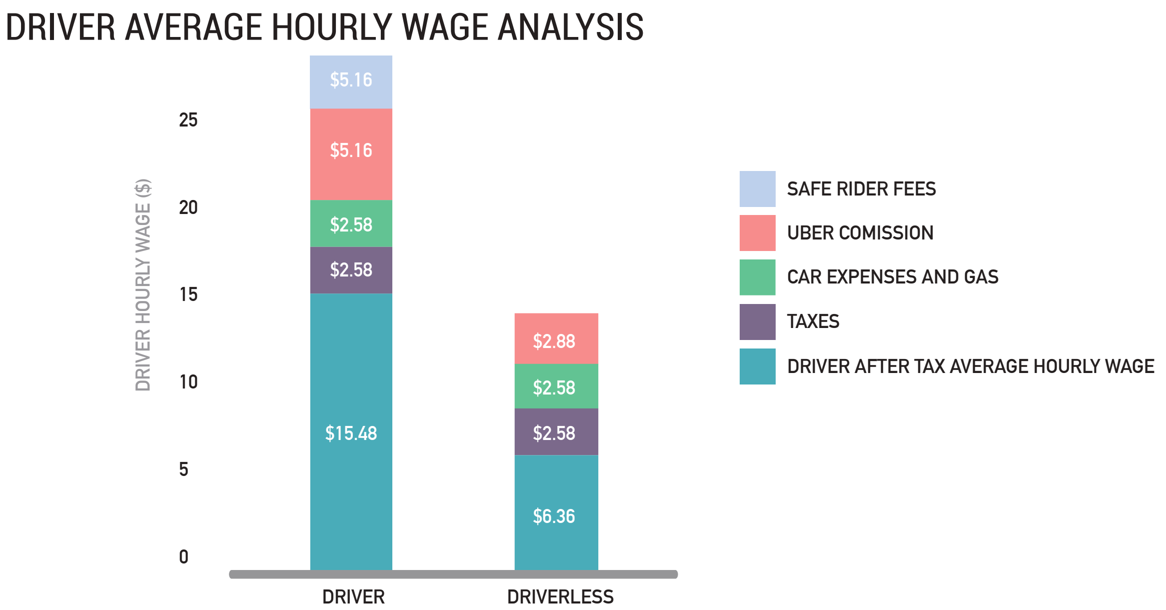
James Serena

A Driverless World

Imagine a world where you wake up in the morning to get ready for work and your car does the same. You walk into your driveway and a self-driving car takes you to your office while you catch up on emails or daily news. Once you have arrived at your destination, your car takes to the street, driving locals around town the same way a regular Uber driver would. This is the reality that Uber is working towards. In fact, experts predict that such a world could take shape in as little as five years.

While Uber's business model has proven attractive enough to raise more money than any other pre-IPO technology start-up in recent memory, it faces a serious problem executing the next phase of its plan. Uber recently began testing driverless vehicles by giving rides to its customers in Pittsburgh; however, expansion of this model across the world will ultimately require millions of driverless cars. Most importantly, Uber currently has no plans on who holds ownership of these driverless vehicles, a vital point to iron out to launch the driverless fleet. Having attained mass adoption through a decentralized business model in which Uber does not directly own vehicles, Uber's only infrastructure investment has been in the 100 recently launched driverless vehicles. To facilitate its driverless efforts, Uber would require billions in capital investment to build a self-owned fleet and compete directly with the resources of other players in this space, including Alphabet and Tesla. This investment is a big ask, given that Uber is currently not profitable and lost at least $1.2 billion in the first half of 2016. To remain relevant in the ride-sharing industry, Uber must find a less capital intensive way to rapidly enter the industry before competitors gain significant market share.

The most apparent reason for Uber to move driverless is that it will no longer have to pay its drivers. Driver commissions, on average, make up around 75 per cent of the fare after accounting for gas, maintenance and taxes, leaving Uber with the other 25 per cent. In a driverless world, Uber would no longer be paying wages and would therefore be able to significantly reduce fares. This reduction would allow Uber to squeeze out existing ride-sharing competitors such as Lyft before they are able to develop their own driverless technology, allowing Uber to immediately win market share. On the flip side, if Uber is not the first



Source: IBR Analysis

to scale in the driverless ride-sharing market, competitors will outprice Uber and likely force it out of business.

New Roads, New Cars

While currently only facing direct competition from ride-hailing companies such as Lyft, Uber will face a significantly stronger wave of competition when entering the driverless space. Not only are its competitors in ride-hailing developing driverless technology, but also several car manufacturers and technology companies, namely Alphabet and Tesla, are positioning themselves as competitors in the driverless market of the near future.

Alphabet, Google's parent company, has been actively testing driverless vehicles since 2009. As a result, there is speculation that Alphabet will begin positioning its self-driving vehicle technology as a ride-hailing service. Alphabet has no plans to manufacture its own vehicles, but instead will partner with existing automakers and license their autonomous vehicle software and hardware sensors. As this strategy is similar to what Uber will likely pursue, and given that Alphabet's driverless technology has been developing since 2009, Uber will have to differentiate itself to potential partners in order to be competitive against Alphabet.

Tesla's proposed entry into the market is through dual-use vehicles. Under this model, Tesla owners could, using the Tesla app, have their vehicle drive for Tesla's ride-sharing network when not in use by owners. By opting in to the network, owners could reduce the monthly costs of owning a Tesla car. Elon Musk, Tesla's CEO, has been optimistic with his belief that many Tesla owners will be incentivized to share their cars with the fleet, but specific details surrounding how the ride-sharing will operate along with how potential passengers would be vetted remain unclear.

Perhaps anticipating Uber's impending entry into the driverless ride-sharing industry, Tesla's most recent leasing contracts state that vehicle owners must agree not to use a ride-sharing service such as Uber if the car is driving autonomously. Though Tesla's strategy focuses on manufacturing electric cars and not creating an efficient ride-sharing network, a Tesla network would make it cheaper to own a Tesla vehicle and would likely enable Tesla to gain market share in the driverless ride-sharing industry.

Steering Driverless

Looking to other competitive transportation industries such as planes or taxis, it is possible that the driverless ride-sharing industry will become commoditized with a couple of years given the low differentiation of the service. Commoditization means that there would be little to no differentiation between using Uber or one of its competitors; consumers would expect comparable prices, speed, and service throughout the industry. What will be important is surviving the initial launch phase, where quickly achieving a cheap and dense network of driverless cars before Tesla or Alphabet means life or death. Should one of Uber's competitors achieve optimal density first, Uber will struggle to win back market share.

In a market with major competitors making clear moves towards market entry, Uber must acquire a driverless fleet as soon as possible. Given that Alphabet has significantly more resources than Uber and that Tesla will have the capacity to output 500,000 cars per year by 2018, speed to scale will be a critical determinant of success in this space. In order to execute on this, Uber should focus on its current model of external car ownership. By keeping cars off its balance sheet, Uber will be able to maintain the flexibility of its current model and drive higher returns for its investors as less capital will be required to finance millions of vehicles. Moreover, buying vehicles would not be the only investment that will be required; should Uber purchase its own network of vehicles, it will also have to hire significant amounts of new personnel to support the maintenance and fuelling of this new fleet, capping its ability to grow. Uber's focus should thus be on growth with as little investment as possible.

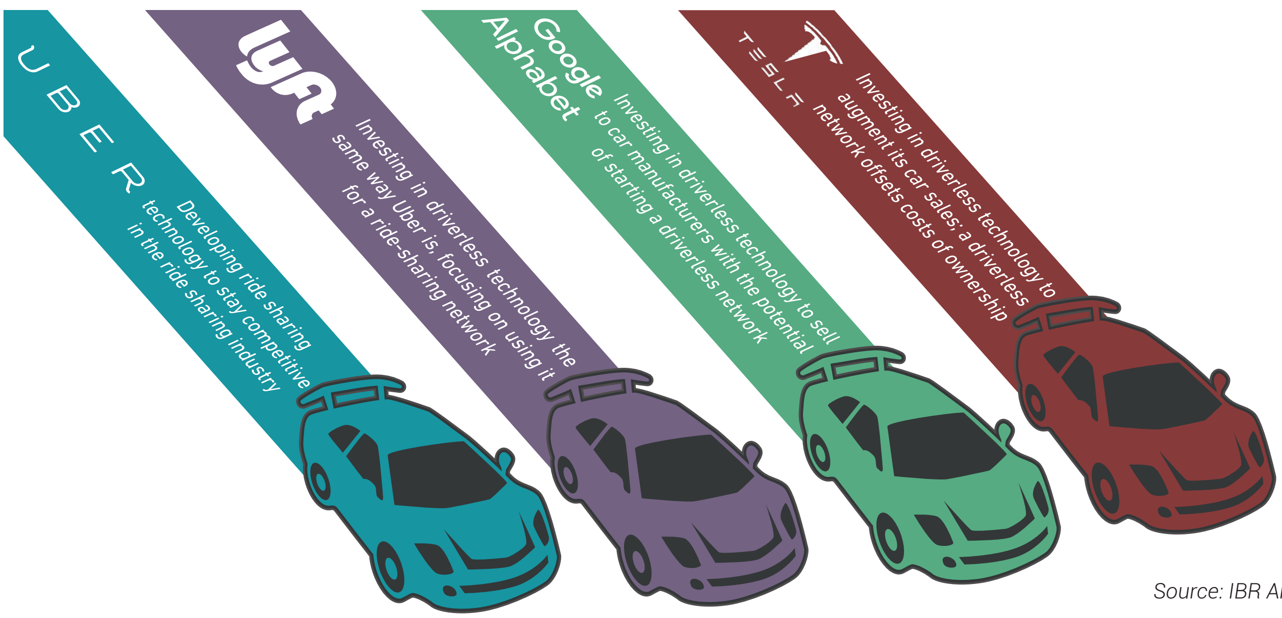
In order to execute on an externally owned driverless network, Uber should instigate a partnership with large car manufacturers to use Uber's driverless technology. In exchange, Uber will hold exclusive rights to that car's ride-sharing network, thereby ensuring that the vehicle will be not be used with an alternative ride-sharing platform. Using Tesla's licensing agreement as a precedent, this binding clause will ensure that the car sold will be programmed for use on Uber's fleet and the car owner can leverage it for ride sharing when they are not using the car.

"In order to execute on an externally owned driverless network, Uber should instigate a partnership with large car manufacturers technology to use Uber's driverless technology"

Unlike Tesla, which will have a network confined to Tesla vehicles, Uber has the ability to drive substantial scale by partnering with multiple car manufacturers giving it a larger annual output of potential vehicles. While Tesla plans to output 500,000 cars per year after 2018, a partnership with Ford - which is already taking part in Uber's Philadelphia driverless launch - has the capacity to contribute a large fleet to Uber as they can produce 2.6 millions cars per year.

To remain competitive against Alphabet, who will likely attempt to engage the same partnerships, Uber should leverage the fact that it already has a data set from existing riders to plan the most efficient use of the cars. While Uber uses Google Maps and thus Alphabet will have access to some of this data, Uber may have a much more cohesive picture of the fleet logistics, matching cars to customers and dealing with surge pricing. Conversely, While Alphabet has access to location data, they may be unable to differentiate between Uber travellers and regular travellers. Having this data will uniquely enable Uber to optimize driving patterns using historical rider behaviour to plan the most efficient routes, measured as fares earned per unit of gas used. Car manufacturers will want to partner with the ride sharing network that offers their customers the most efficient way to earn money and, until a fleet is already out and running, Alphabet will not have the data to compete on

AUTONOMOUS VEHICLE COMPETITORS



Source: IBR Analysis

this front. Once Alphabet collects and develops this data in the future, Uber's exclusive partnership should give it an edge to out-manufacture Alphabet's partners.

Riding Into The Sunset

The rollout strategy for this driverless network should be phased in using a hybrid model. Uber should create an option on the app to either have a driver or go driverless. To encourage adoption, Uber should show the expected fares for each option in an attempt to incentivize use of the less expensive driverless option.

This initial period will also act as a beta test so that Uber will be able to understand common challenges for driverless riding and create fixes through software updates before it has millions of cars on the road. Eventually, drivers will find that they are no longer getting competitive fares, resulting in less drivers working with Uber as they are replaced by the cheaper driverless fleet.

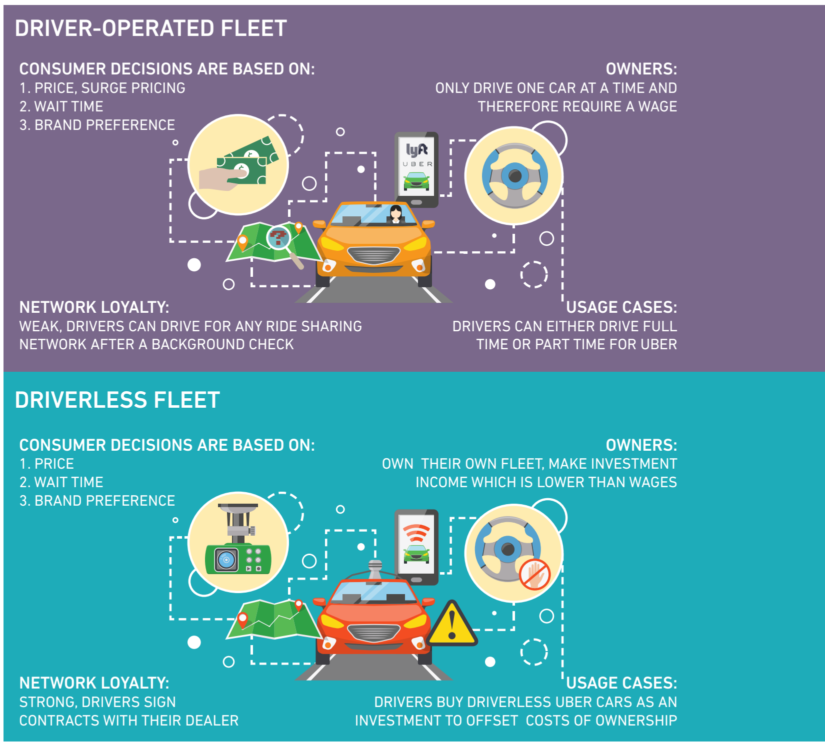
While Uber is currently only open to drivers and riders, in a driverless world, Uber could have partnerships with investors seeking returns. A pension plan, for example, could buy thousands of driverless cars through the Uber network acting as a true investment vehicle. These types of large-scale investments will not only help Uber grow its fleet, it will also require less human resources managing car owners.

With the establishment of strategic partnerships across a number of leading automotive firms, Uber has the potential to gain exclusive access to a vast driverless network. Moreover, Uber will have the support it requires to rapidly scale into a market that major competitors with substantial resources are currently pursuing. Ultimately, Uber's evolution into a driverless market leader will usher in a fundamental shift in the ride-sharing industry: Uber's best hope for long-term survival and profitability is to spearhead this change, maximizing the returns that the first mover in this market can achieve.

The external ownership model proposed will require quality control in order to work effectively. In order to be an attractive opportunity for driverless car owners, Uber should punish riders that abuse the car and also set controls in place to quickly fix damages caused. An issue that current drivers face is riders causing damage to the vehicle. In this situation, the driver has to stop giving rides for the night and have the car cleaned, cleaning fees are reimbursed by Uber and charged to the rider that caused the damages. Without a driver, Uber would have to have sensors within the car to know if damage is caused and cameras should be installed. There are currently cleaning services for Uber cars, such as Spotless First, that can have the car back on the road within 60 minutes of calling for service and charge Uber directly so that the owner would never have money out of pocket. These same services could be automatically called should the driverless car sense that there has been an incident in the vehicle that requires cleaning. Should damage be done, the rider would automatically lose rating points, much like they would under the current system, while also being charged for the cleaning fees, punishing the act. The difference in the driverless model is the fact that riders will be incentivised by their rankings, such that the highest rated 20 per cent of riders pay lower fees and the lowest rated 20 per cent of riders pay higher fees. This tiered pricing system could also incentivise riders who are most prone to damaging vehicles to ride on a competitor's network. By maintaining this ratings system, Uber will be able to weed out the abusers of the driverless model and hold its riders to a high standard of respect.

Uber has a long road ahead for it to be the first to mass market with a driverless fleet. By adopting a model of outside vehicle ownership, Uber will be able to take down competitors such as Lyft while also gaining footing in an industry that technology giants will likely attempt to enter in the near future. The key for Uber now is not to think about how much money it can make on driverless cars in the short term but on capturing as much market share as possible in an industry that will shape future generations.

DRIVE VS DRIVERLESS MODELS

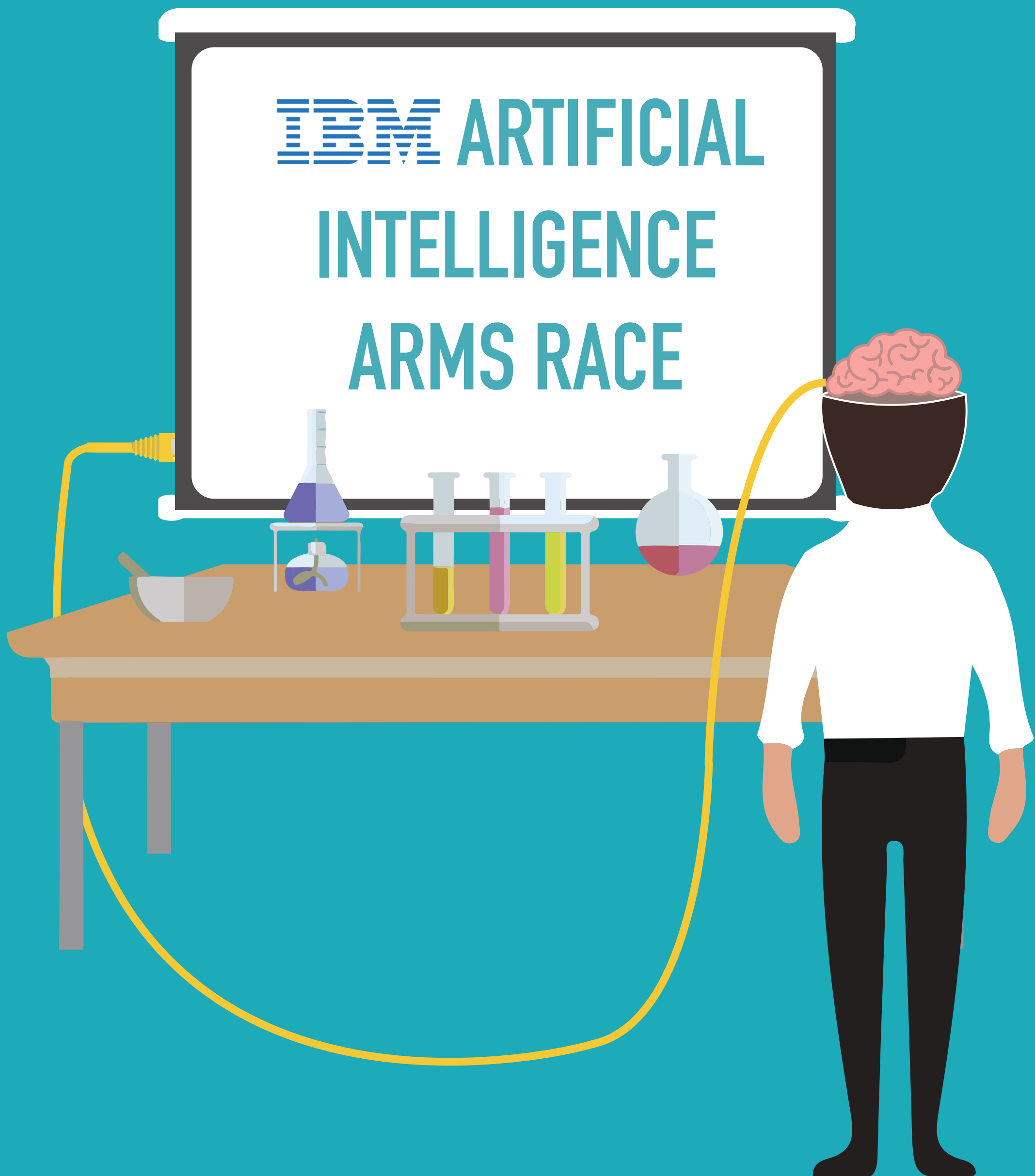


Source: IBR Analysis

IBM: INNOVATIONS ARE ELEMENTARY MY DEAR WATSON

Encouraging risks at IBM helps fuel the possibilities for Watson

Hashu Rahim & Dennis Zhan



Passing The Torch

Watson was built on humble origins: IBM research manager Charles Lickel wanted to create a computer system to stymie the dominant run of Ken Jennings in the Jeopardy! circuit. Today, that system, Watson, represents the best solution to combating revenue contraction trends and the lack of innovation at IBM.

Unlike traditional computer systems which require structured input, Watson is a proprietary cognitive recognition system that processes raw, unstructured data. After users upload relevant data to Watson's internal processing system, also known as its corpus, experts begin to ask Watson a series of prompt questions. This marks the beginning of the continuous learning process. These prompts teach Watson to recognize linguistic patterns. Consequently, Watson perpetually learns through interactions with end-users.

Since the departure of CEO Samuel Palmisano in 2012, IBM has suffered through negative public and investor sentiment. From 2012-2016 Q1, IBM's revenue declined for 16 consecutive quarters. Mid-2016 results saw an overall decline of 23 per cent in year-over-year systems sales, historically a critical business unit to IBM's aggregate performance.

IBM recognizes that it cannot afford to stay stagnant, and must leverage Watson to move forward as a technology giant. In order to drive top-line growth and restore its standing as an innovative firm, IBM is exploring opportunities to grow its cognitive solutions segment. To this end, IBM has acquired nine artificial intelligence (AI) companies over the past six months. These acquisitions were fuelled by the strategic initiative of enhancing the functionality of Watson.

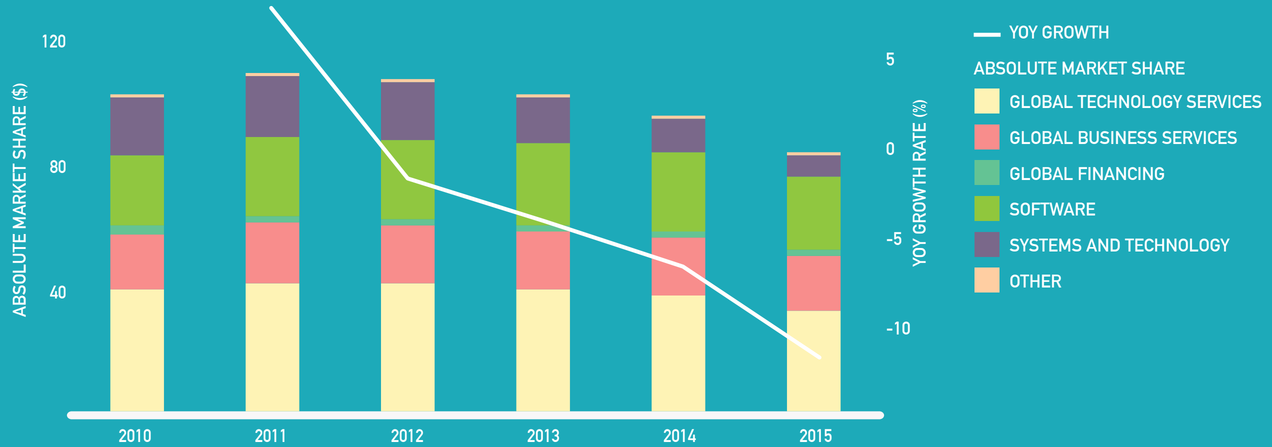
Despite Watson's immense potential to revolutionize a cascade of industries, IBM is at an impasse over how to incentivize client adoption. Ultimately, Watson was not designed to produce a solution to a particular business problem and was perceived as a discretionary investment. While IBM attempts to monetize Watson, integration misalignments have become rampant. As of Aug. 31, 2016, the clients-to-date list of Watson spans 500 names, well below overall corporate targets by 94 per cent. Meanwhile, competitors such as Alphabet have been developing in-house solutions and acquiring start-ups for their intellectual property and human capital. With the AI market estimated to grow from $420 million in 2014 to $16 billion by 2022 at a CAGR of 57.6% from 2014 to 2022, it is paramount for IBM to redefine its application scope for Watson to a particular niche where it can establish a defensible market position.

The Path Forward

Looking forward, IBM needs to transform its acquisitive strategy. It must emphasize acquiring ideas with strategic value and not just financially stable businesses. Innovative companies acquire startups and other private entities to take advantage of promising technologies which could significantly improve the acquirer's attractiveness. A successful case study of this strategy is Alphabet, which has made several acquisitions of unprofitable startups with promising intellectual property and management teams. Contrastingly, IBM has historically favoured buying businesses with strong cash flows with the intent of delivering large dividend payouts. Given declining revenues over the last several years, it is in the management's and investors' best interests for a shift in strategy. IBM must alter its investment mandate by putting an emphasis on intellectual property over cash flow.

The transformation that IBM must undergo is a perilous one. To succeed in redefining its application scope for Watson, IBM must modify its approach from replacing mundane administrative functions to disrupting existing business processes. IBM's corporate marketing must pivot

TOTAL MARKET SHARE VS. YEAR-OVER-YEAR GROWTH



Source: Wall Street Journal

from generating excitement around AI and must resist Wall Street's pressure for short-term results by demonstrating how innovations, such as Watson, take time to have their potential realized. It must develop a portfolio of capabilities with different risk and return profiles. This strategy would be analogous to notable venture capitalists investing in start-ups with promising product pipelines. While some investments would lead to poor returns, others become overwhelming successes.

Innovating Healthcare Investments

IBM has grown its health-care branch, the Watson Health portfolio, through two main initiatives: it has formed partnerships with hospitals to develop the diagnostic function of Watson and has invested in research facilities as a means of synthesizing data, thereby improving the predictive power of the platform. While this is a strong start, IBM's leadership must focus on deriving the most impact from its acquisition targets and quickly modify or eliminate subdivisions which are failing to meet objectives.

With the intent to develop an economic moat, IBM should adapt the use of Watson by vertically integrating within the healthcare sector. It should create a research arm focused on developing proprietary treatments to receive licensing revenue. There exists a striking gap in large pharmaceutical companies' due diligence processes, and industry trends are increasing the urgency of correcting this issue. Recent sentiment in the health-care industry is bearish; pricing scrutiny by politicians and enhanced availability of generic substitute products have hampered the performance of large-cap pharmaceutical companies. Significant capital expenditure in developing drug pipelines or acquiring smaller firms is required to defend existing market share. Thomson Reuters estimates M&A deals attributable to the healthcare sector reached a record $664 billion in 2015. Further, growth in VC invested private healthcare firms saw a strong increase of 133 per cent in 2015.

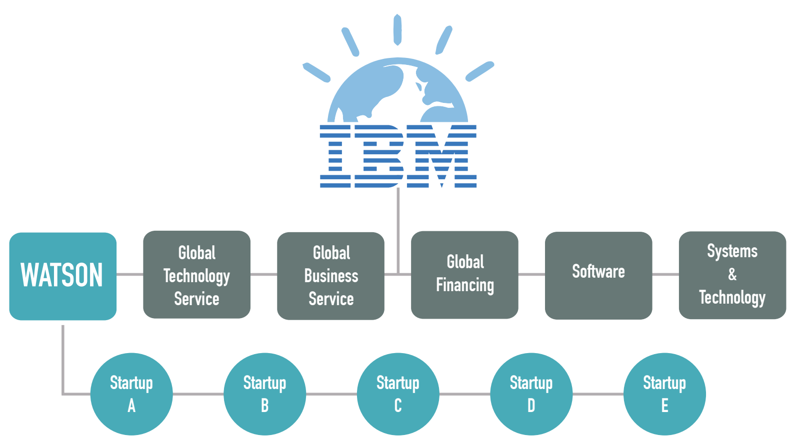
There is a tendency in the healthcare M&A market to pay massive premiums for promising drug pipelines, placing tremendous pressure on acquiring firms to realize synergies. A specialized technology which can pinpoint firms with enhanced commercialization potential could be paramount to executing a roll-up growth strategy. In August 2016, Medivation, an American biopharmaceutical company, was acquired by Pfizer for 14x trailing revenues. Comparatively, large-cap pharmaceutical companies are valued in the public market at less than 24x trailing earnings. An acquisitive strategy is difficult to sustain; in pursuing acquisitions, firms would be either constantly diluting shareholder value when using equity or taking on tremendous incremental leverage.

Start-Up Culture In A Giant

To properly tap into the healthcare analytics sector and address uncertainty in the healthcare M&A field, IBM should acquire a contract-research organization (CRO). CROs are firms which specialize in trial-based Phase I to IV clinical development services for small- to mid-sized pharmaceutical companies. With this acquisition, IBM will own the entire value chain for proprietary drug development and can automate its due diligence process, realizing substantial value creation across the healthcare industry. Additionally, IBM will be emphasizing the acquisition of ideas and fostering a start-up culture.

From the development perspective, Watson will be able to process thousands of similar precedent test case symptoms with a differential case to determine the probability of drug efficacy. Alternatively, Watson has a data pool of regulatory statures and will be able to synthesize the data to determine the probability that a differential case will be accepted by the Food and Drug Administration (FDA). Coupling Watson with the capabilities of a CRO

LOOKING AHEAD: IBM REIMAGINED



Source: IBR Analysis

will allow IBM to more effectively develop a portfolio of drugs which may be outside the normal risk tolerance of a pharmaceutical company.

After leveraging AI to build a portfolio of successful pharmaceutical products, IBM can license its drug patents to large-cap pharmaceutical companies for commercialization and production. Biologic drugs are offered 12 years of market exclusivity by the FDA, creating a supply-driven monopoly. This will lead to substantially recurring revenue flowing to the bottom-line of IBM.

The Answer To IBM's Woes

Headquartered in Cincinnati, Ohio, Medpace is a player in the CRO sector that could offer a high return for IBM. It has a clinical research arm as well as a medical device development segment. Medpace has reported solid revenue growth in recent years and in 2009, was recognized by CenterWatch, a CRO industry publication, as a top CRO. The company reported 19 per cent revenue growth on the fiscal quarter ending on March 31, 2016. Moreover, Medpace has reported attractive adjusted EBITDA growth and robust Free Cash Flow (FCF). Its FCF and EBITDA growth in 2015 was just shy of 11 per cent and 25 per cent, respectively.

Medpace brings differentiating factors, such as its control of the value-chain, promising operational and financial metrics and a diverse clientele. Medpace is full-service; it does not outsource partial contracts or functions to outside agencies. This is an advantage in the sector as there have been numerous cases of third-party contract researchers erring on timely data delivery. As a full-service CRO, Medpace consistently provides timely, efficient and high quality results to customers.

MEDPACE INVESTMENT THESIS

Source: IBR Analysis

With its top ten clients composing only 40 per cent of revenues, Medpace does not depend significantly on any single client to generate revenues. This contributes to low customer concentration risk, evidenced by its largest customer accounting for 7 per cent of revenues. In comparison, competitors typically revolve entirely around one or two major customers. Medpace's client mix is also diverse as it has clients from all segments of the pharmaceutical space, ranging from small- to large-scale companies.

Medpace has one of the highest organic revenue growth rates in the CRO sector. It reported net service revenue and adjusted EBITDA CAGRs of 22 per cent and 26 per cent from 2012 to 2015, respectively. While growing at such dramatic rates, Medpace has maintained an average adjusted EBITDA margin around 32 per cent. This points to Medpace's operational efficiencies as it has achieved steady margins despite accelerated growth. Moreover, Medpace's net new customer growth hit 18 per cent in recent years. In 2016 it projected new business opportunities of approximately $415 million, up by $55 million from last year. Consequently, Medpace's growth has not been fuelled by unsustainable initiatives such as aggressive pricing.

In addition to its strong financial standing, Medpace's large geographical reach and the diversity of the clinical tests it runs further differentiates it from other CROs. This is reflected in Medpace's four global College of American Pathologists accreditations in the U.S., Netherlands, China and Singapore, and its operation of a GLP-compliant bioanalytical laboratory and an ECG laboratory. Medpace's international geographical footprint and company-operated laboratories allow it to achieve global outreach.

IBM's corporate strategy has historically been focused on optimizing short-term operating metrics such as EPS. Consequently, recent investor sentiment has experienced downturns; significant revenue contractions in legacy businesses have raised concerns regarding the sustainability of IBM's business model. Looking forward, IBM needs to transform brand perceptions by acquiring new ideas and fostering a start-up culture. In particular, it should leverage its Watson Health platform to support the activities of venture capitalists in the healthcare sector. IBM will assess the attractiveness of small-cap pharmaceutical companies and their drug pipelines and determine an appropriate valuation using Watson. IBM can then support the commercialization of the product in the development and marketing aspects of the value chain.

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