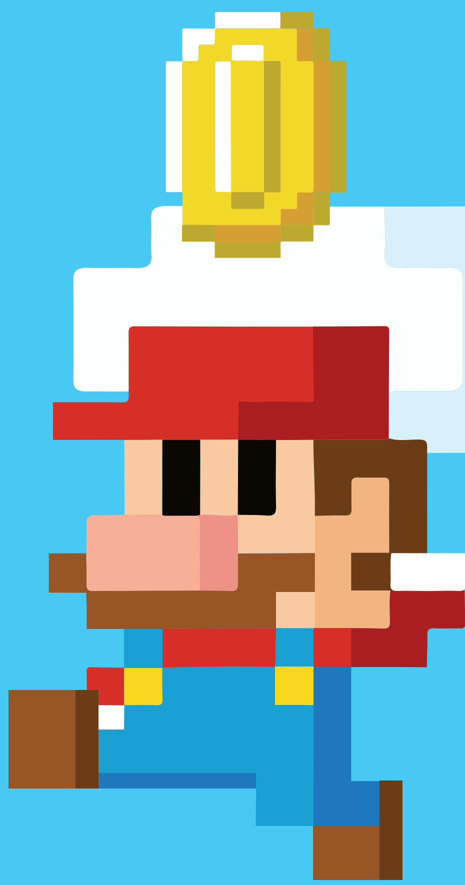
IVEY BUSINESS REVIEW

NINTENDO: TIME TO "SWITCH" IT UP

Nintendo needs to end its console-exclusive model and open its franchises to a larger market **| P.56**



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 Editor-in-Chief:

"Bracing For New Tides"

My team and I are extremely excited to bring you this edition of the *Ivey Business Review*. In these pages, you will find unique perspectives and creative solutions for some of today's most interesting business problems. As with all editions of the Ivey Business Review, the hope is that you will be inspired by these solutions, and keep them with you as you make your way through your career. More importantly, I hope that you will enjoy the narratives and analyses of the businesses featured in this edition.

As the business and political environment becomes increasingly unpredictable, it is more important than ever for organizations to hedge against uncertainties. That is why our article on Canadian Dairy Farmers provides a solution for farmers across Canada to remain competitive in the gradually deregulating dairy industry. Another article, The Medium Is The Message, explores a new and unique way for online journalism companies to monetize their platforms.

Businesses must recognize when the strategies implemented for many years simply are not working. That is why our articles on Nintendo, Second Cup, Gilead, and LEGO provide insight into why these businesses have not been performing to their true potential, and the actions required to bring them back on track.

Today, firms play a greater role shaping the public sector. Our articles about Philip Morris International and Waze explore ways that these companies can help governments with public health and traffic congestion, respectively.

Finally, in the age of rapid technological advancement, technology can become a unique competitive advantage for many companies. Our articles about Amazon, Twitter, Alexa, MLB, and Waze explore unique ways in which technology can enhance or even revamp a business' outlook. I hope that you enjoy and take inspiration from the ideas presented by my team.

Sincerely,

Dan Wei

Editor-in-Chief & Publisher

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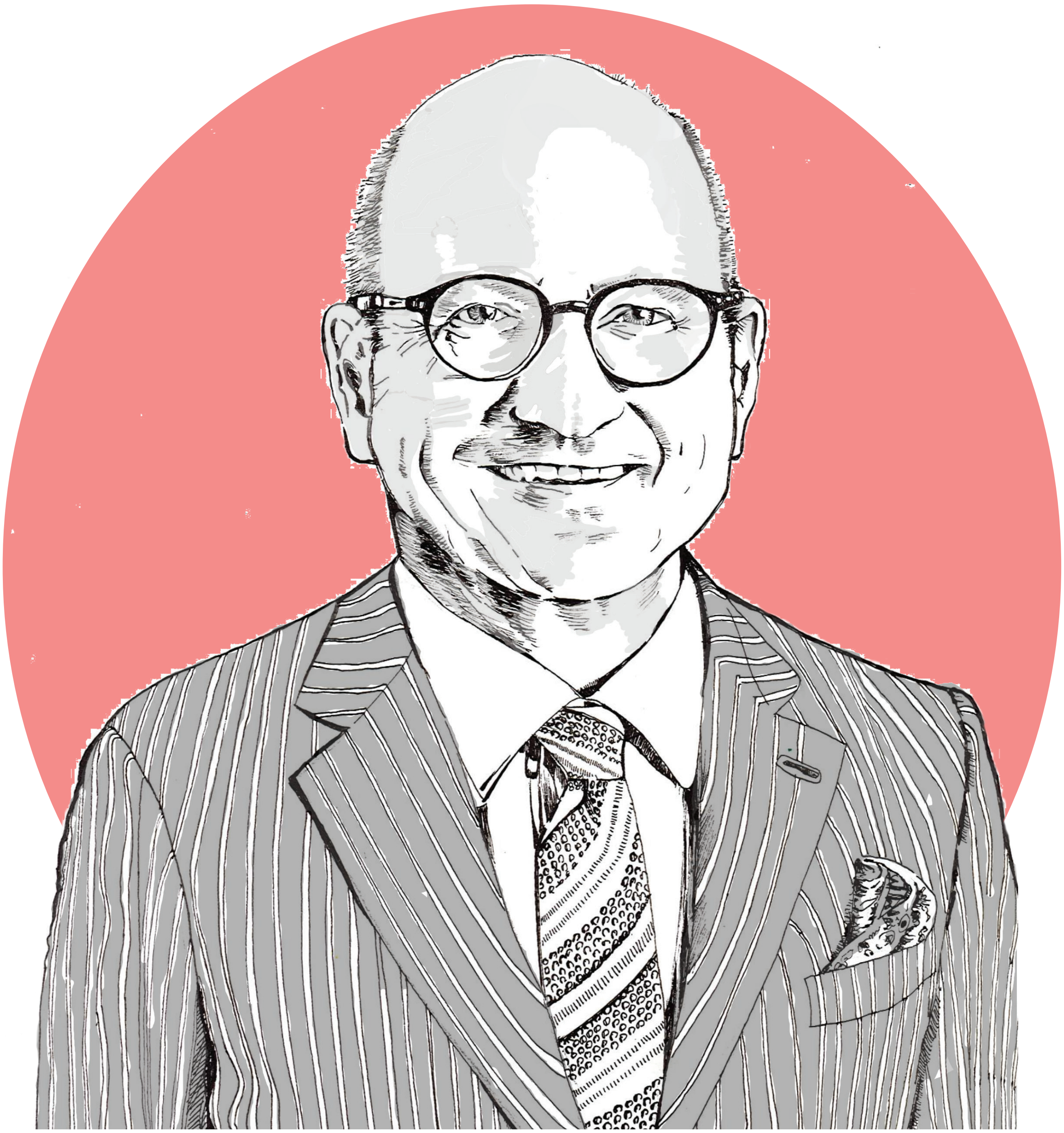
Interview: Larry Rosen

CEO of Harry Rosen



IBR: Growing up as a child of Harry Rosen must have been interesting. Did you always want to carry on the family business?

LR: My father, who's now 85, is still one of the wisest and most interesting people I know. He never put any pressure on me to join the family business. I worked part-time in high school and university selling at our store. I liked to sell, I liked the fashion, and I liked the clothing. I received my bachelor's degree at the University of Toronto and obtained a law degree and an MBA at Western and Ivey. I was practicing corporate law for a year or so in Toronto at a smaller firm and I was enjoying work. However, that was at the time when my father started expanding Harry Rosen nationally in the early 80's and I was very interested in what he was doing. I told him that although I loved law, I found the work he was doing even more interesting and I asked him whether or not he would be interested in having me join Harry Rosen. He told me that he would, but there had to be an understanding that I was going to have to learn the business and establish my own credibility in the eyes of a lot of people. I joined Harry Rosen in 1985 and I've been here for 32 years. I transitioned through many different positions. I started as a buyer, and then got promoted to manage a group of stores. I progressed to VP of Corporate Affairs, then to President, and in 2000 I became the CEO. I've been the CEO now for 17 years.

IBR: What are some of the most valuable lessons that you can share from your journey?

LR: There are so many. The first one I learned in my early days at the company. I was very anxious to establish myself as a credible force at that time so my leadership style was too dominating. It was quite obvious that I was putting business results ahead of personal relationships, which forced me to sit back and analyse my interactions with my co-workers. I altered my personal leadership style to a more respectful and inspirational style. I'm very impatient with achieving goals, but I learned if you want to succeed, you can't be impatient. You have to work with people and coach people.

During the business cycles at Harry Rosen, I learned that sometimes everything you do seems to be an out-of-the-park home run, and other times it's like you are swimming in quicksand. Having survived a number of business cycles, you learn a lot about building long-term goals and strategies. Also, you learn not to become over confident when times are great and learn not to let the tough times discourage you.

IBR: What skills do you think are necessary for a leader to drive sustainable change in an organization such as Harry Rosen?

LR: I think it's important for a leader to understand that he or she doesn't have to be the main source of ideas. Instead, the leader should be one who facilitates team ideas and contributions. In fact, if other people feel that they are major contributors to the company's strategy, and you give them the proper credit, they'll be a lot more productive. I'm in the fashion business; it's a young man's business. I'm now 60 years old, and I don't expect to have ideas on the latest trends in fashion or technology. I have to depend on a lot of smart young individuals to help develop our virtual strategies. Good leadership is recognizing when you need to engage and get strong input from others.

IBR: You mentioned that you earned an MBA/JD from Ivey and Western. In what ways do you think your Ivey education has helped you succeed as an CEO?

LR: There isn't a day that goes by that I'm not grateful for my Ivey education. The business frameworks I learned at Ivey are utilized everyday. I lived it, I breathed it, and I don't think that Harry Rosen would be a success today if it wasn't for a solid business education. Retail is not the most sophisticated industry; bringing strategies to retail and being a strategic company is a real advantage.

IBR: Under your leadership, Harry Rosen expanded sales and added new stores to eight major Canadian markets. How were you able to achieve such success?

LR: When I took over as CEO, there was a serious recession. However, we were never afraid to invest in our business, regardless of where we were in the business cycle. When you're investing and growing your business all the time, the natural tendency for most businesses is to cut improvements and capital investments during difficult times – we didn't. Our stores continued getting better through good and bad times. We kept gaining market share in the quality men's segment to the point where we now have approximately 40 per cent of the quality men's segment in Canada. That's because, through every tough business cycle when everybody else retreated, we kept moving forward.

The other thing that has allowed us to grow to well over $300-million in revenue is my father's operating philosophy. He had a tremendous passion for customers because they are the company's most important asset. My team and I lived his philosophy. There's a culture in our organization that was founded by my father, and we haven't lost sight of that. I didn't invent the philosophy, but I make sure that it continues.

"When you're investing and growing your business all the time, the natural tendency for most businesses is to cut improvements and capital investments during difficult times – we didn't"

IBR: How has e-commerce changed how you deliver your value proposition to customers, and what kind of opportunities or threats do you see from e-commerce?

LR: E-commerce to Harry Rosen is more than just another sales channel. The reality is that customers want options, and e-commerce provides them with a means to conduct research. Even though we make a lot of sales online, traffic on our website often translates into foot traffic in our stores. For every dollar we sell online, we earn four or five more dollars of in-store revenue from clients who found us through our website. Even when we get returns, most people don't send their purchases back. Customers return items to the store, and we have a great opportunity to engage them and develop a relationship with them. We're in the fashion business and people want to try things on, see how it looks on them, and want to have it altered properly. Those services can't be provided online. We also have Virtual Harry, where associates can connect with their clients through their version of our webpage. Associates have their own personal portal, where they can sell to their clients online. The reality is, technology is impacting retail dramatically, and we want to be at the forefront. However, we want to incorporate technology in a different way from others, adding the personal service element to it. Anyone can set up an e-commerce website business, but bringing a personal touch is more difficult.

IBR: In a Globe and Mail article, you highlighted the importance of discipline. How do you think people, especially young people, can put more discipline into setting their objectives or goals?

LR: You have to understand what the most important things in your business are, and make sure you're on top of those things. A lot of people let a lot of extraneous stuff enter their lives, they spin their wheels, and they work on ancillary projects. But you have to make sure that you focus on the big button stuff, know what is driving your business, and spend 90 per cent of your time on the essential things. That's the kind of discipline that I believe in. Understand what makes your business successful, and make sure that you spend the appropriate amount of time on what you need to be spending time on. I'm surprised at how easily distracted people are from the big issues.

It's also very important for young people to clarify their goals and make sure they're sticking with it. One thing I always say is "it's really important to find an industry that you love, get into it, and really learn it." People are too willing to hop around. They get to know a little about a lot of things, as opposed to being really interested in one thing. My whole life, at least the last 32 years, has been a study of retail. It's the study of human behaviour. I've gone my entire professional life trying to understand customers, what makes them tick, and what makes them want to make a purchase or go from one retailer to another, and that's what I do. There's not a lot about men's retail that anybody can teach me. There's something to be said for being really focused in an industry and really learning it and being excellent at it, instead of hopping from career to career, or industry to industry.

IBR: What are some pieces of advice you might have, whether in life or work, for young people who want to be future business leaders, entrepreneurs, or CEOs?

LR: First, find an industry you love and get in it. Get your foot in the door, and stick to it. Don't just get to a job and think you have to jump to the next challenge. Get into the industry and really learn something. Roll up your sleeves, get your hands dirty, and learn everything you can about the business. Be patient and be ambitious; tell people where you want to go and ask them how you can get there. Use mentors to help you get there. Think big, think long term, think strategic, be ambitious, and recognize that you can't do it yourself. Leadership is about working through people, inspiring people, and giving people credit. If you can't do that, you can't be an inspirational leader.

Interview: Matthew Corrin
Founder and CEO of Freshii

IBR: You went from being an intern at a late night talk show, to taking on a PR role and, finally, entering the fast food business. Did you ever imagine that your career would take such a turn?

MC: I was always passionate about health and wellness growing up because I lived a healthy lifestyle myself. Growing up in a healthy family, I understand the importance of healthy eating. I also realized through my different jobs that I was very passionate about consumer branding. I was particularly attracted to the mass consumer, and when it came to the unique idea of Freshii, I saw that health and wellness was clearly a trend growing around the entire world. So, I focused heavily on the branded experience. I wanted to create a place that could allow you to eat well, conveniently, and affordably, and could potentially be scaled to the mass market.

"Entrepreneurs are always walking with their heads up. They're constantly looking around them to see what strikes their interest"

IBR: Many students here at Ivey want to start a business but many of them don't know what they want to do yet. How did you decide your path and become an entrepreneur?

MC: The first step is acknowledging that the best ideas may not stem from what you're interested in now. I certainly wasn't interested in getting into the restaurant business. To be an entrepreneur, you first want to experience as much as possible so that you're able to identify and solve unique problems. For students aspiring to be entrepreneurs, I always recommend taking on impactful internships. Internships can range from something mundane like getting coffee, to something significant like launching a new business division. Try to apply to companies that focus on the latter. At Freshii, we created a robust internship program that allows interns to really get their hands dirty.

Also, I find that entrepreneurs are always walking with their heads up. They're constantly looking around them to see what strikes their interest. That's how I became an entrepreneur: I was looking around and I saw something that was very compelling to me. That's also the reason why Freshii doesn't advertise its franchise program. We get almost 4,000 applications every year, but we never spend a dime on franchise advertising. Inevitably, those who have an entrepreneurial spirit stumble upon us because they're looking up and they see something that's compelling, different, interesting, and exciting. Those types of people are who we are ultimately looking for.

I also think that you don't necessarily need to be a founder to be an entrepreneur. For example, I think franchising or working at a company like Freshii is incredibly entrepreneurial. I don't think that you need to necessarily be employee number one to be an entrepreneur. We have now almost a dozen team members from Ivey who were part of the company during the IPO and are now shareholders in the company. They own this young company just like how I own this company. You don't have to be a founder to do that.

IBR: In what ways has your Western experience helped you prepare for a life of entrepreneurship?

MC: I did a three-year MIT bachelor's degree. The thing that I developed the most from my time at undergraduate experience was my work ethic. I had to work extremely hard because I was never a naturally bright student. University is the first time in your life when you have independence: you can do what you want, you can study if you want. But, if you actually want to do great things, you have to use that time to learn and excel.

IBR: Freshii's franchising model allows for rapid growth. But, as we've seen in other industries, this format can lead to depreciation of quality in products and operations. How do you think Freshii has mitigated these risks?

MC: Many people argue that if you open and operate all of your own restaurants, you will always be able to do better than franchises because you have full control over the brand. Conversely, I make the argument that if you are investing a quarter of a million dollars into buying a franchise, you're going to care much more than if an hourly-paid employee or store manager. So, I actually think that the opposite is the case: if you do it right with the right franchise partner, you're not going to face dilution.

IBR: What kind of legacy do you see Freshii leaving in the business world?

MC: I got an amazing email recently from a customer who had lost 60 pounds by eating at Freshii. I was reminded of the incredible impact that we, as a business, can have. Every time we sell something at Freshii, we're helping people energize and live a healthier life. At Freshii, you're consuming food that is genuinely better for you. In short, I hope to change people's lives by making them healthier.

IBR: How does Freshii approach innovation in an industry like food services, and what innovations are you and your team currently working on?

MC: We're a company that's built by millennials: two-thirds of our franchise partners are millennials and, increasingly, our customer base is made up of millennials. We're a unique company that's built for millennials by millennials for millennials, and that's very different. I'm not sure if there's another brick-and-mortar brand in the world that's our size and that's led by millennials. The reason why we are able to move so quickly and stay on the cutting edge is because when we talk about how we would want the company to change if we were customers. We ask ourselves, "what would make people like us want to use this brand more often? What do we need to do with technology, with menu, with flavours, with store design?"

One of the new programs that has been developed through this type of thinking is Mealbox. Mealbox is essentially a day's worth of food delivered to your door in a box the night before. You keep it in your fridge before you go to bed, and the next day you have breakfast, lunch, dinner, and three snacks ready. It makes healthy eating more convenient and it's oftentimes more affordable than going to a restaurant or making it yourself at home. It aligns with our mission because it's really about driving people's health and wellness goals.

IBR: You are extensively involved in the startup community, including being involved with the Next Gen Den. What things do you look for when you invest in a business?

MC: I was 23 when I convinced my parents to invest in my idea. I had a few non-family shareholders who were customers before they became shareholders, and they invested almost one million dollars back in 2007 in what was a three million dollar valuation. Now, the company is worth over $400-million. I will tell you what they told me when they made their investments: they saw that I was someone who was not scared of failure. They saw someone who was incredibly innovative and constantly evolving the business. They saw someone who never gave up when things were going bad. They saw someone who was very confident, but who was also open to learning and listening before making the final decision. I think those are the things that went well for those shareholders, and that's what I look for when I invest in a business.

IBR: You've been named EY's Entrepreneur of the Year, Canada's Top 40 Under 40, and INC's Top 30 Under 30. You've accomplished so much in your career - what's next?

MC: The good news is: the answer is more. More of what we've been doing. My goal is to never peak. I want to continue to improve for the rest of my life. I know many people who peaked in university, and some who have even peaked in highschool. I work everyday to ensure that I keep moving forward. That's not to say that I can't accept setbacks. My life has always been a story of taking 10 steps forward and a few steps back. That's just the reality of life. But I also believe that I will never peak.

> *"If you are investing a quarter of a million dollars into buying a franchise, you're going to care much more than if an hourly-paid employee or store manager"*

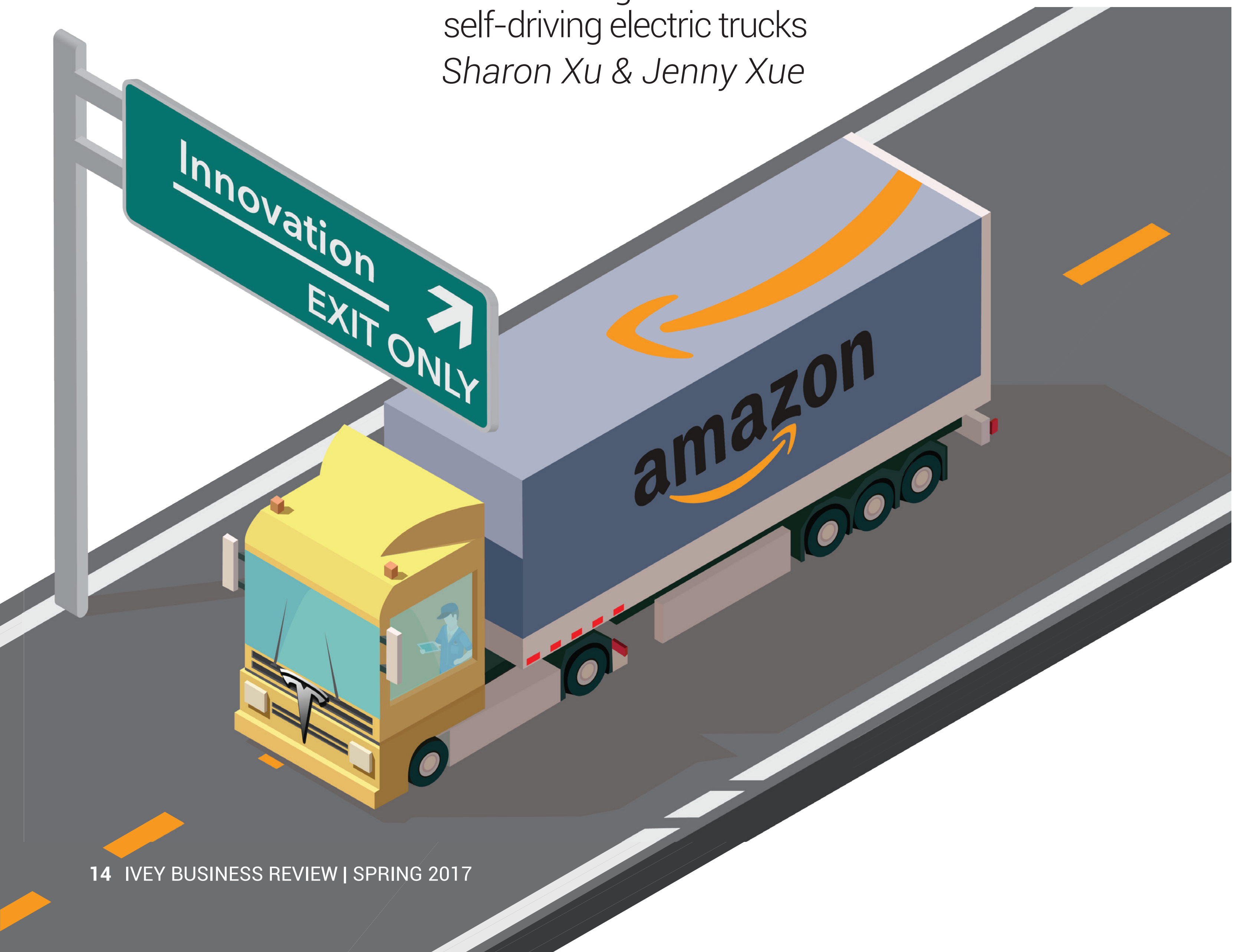
IBR: What is your secret to success?

MC: The longer I do this, the more fun I have. I love everything about what I do everyday. It's rare to find a place where you can reach your very significant financial, personal, and business goals while enjoying every moment of it. When you find a place like that, you should never leave. That's why, for me, Freshii is forever. Find something you're so passionate about, which you love doing every single day.

AMAZON & TESLA: DRIVING IN THE AMAZON OF COMPETITION

With rapidly eroding margins due to rising shipping costs, Amazon's innovative solution to cost-cutting lies with an investment in Tesla's self-driving electric trucks

Sharon Xu & Jenny Xue



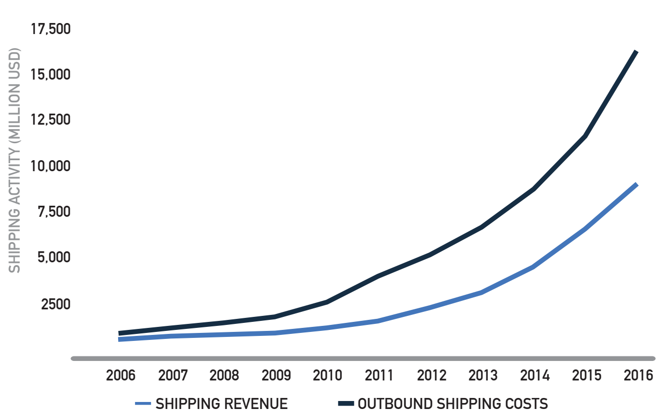
Amazon Drone Sites

If a shopper wanted to buy bacon flavoured toothpaste right now, they could simply search "bacon toothpaste" on Amazon, browse a wide assortment of selections, and click a button to order it. You would expect your bacon flavoured toothpaste to be flown across the country, processed through a warehouse, and delivered to your doorstep within a few days. This is e-commerce today; an industry with global sales of $1.9-trillion and annual growth of 23.7 per cent. Although Amazon is diversified into a range of industries, Internet retailing remains the core of its business, making up almost 70 per cent of Amazon's $136-billion revenue in 2016.

While leading the competitive landscape of e-commerce, Amazon has fundamentally changed the buying process of consumers. With the Amazon Prime program, customers receive free two-day shipping on eligible products, exclusive discounts, and access to a wide variety of Amazon services for $99 a year. In fact, Amazon's e-commerce strategy heavily relies on the growth of its Prime program; in 2016, the company added 20 million members on top of the 46 million base. Data has shown that Prime customers are not only more loyal to the platform, but also spend 2.4 times more than their non-Prime counterparts. However, the value proposition of fast, inexpensive, and convenient service to Prime clients requires constant innovation on the part of Amazon to stay ahead of the fierce competition.

In 2016, Amazon reported $16.2-billion in shipping costs but only $9.0-billion in shipping revenues collected from Prime customers, with growth rates of 40 per cent and 37 per cent respectively. These shipping costs represent a staggering 17 per cent of Amazon's e-commerce revenue and consisted of fees paid to third party services including FedEx, and UPS. For the millions of products eligible for free shipping to Prime members, there is a fixed shipping revenue of only $99 per customer which implies that the incremental cost of shipping each individual package is transferred to Amazon. The misalignment in Prime revenue and cost structure necessitates Amazon to decrease the cost it pays for delivery if it is to continue aggressively growing its Prime membership base.

AMAZON'S SHIPPING REVENUE AND COSTS



Source: Statista

Competition Moving into the Amazon

Amazon's current business model is lucrative despite low margins due to high volumes; every year, Amazon sells several billion products with an average margin of approximately 1.5 per cent. For logistics companies, the shipping costs that Amazon pays presents a highly attractive opportunity. Amazon's shipping partners have guaranteed revenues on billions of annual shipments. Instead of losing a large portion of revenues to third parties, Amazon should enter the shipping business itself.

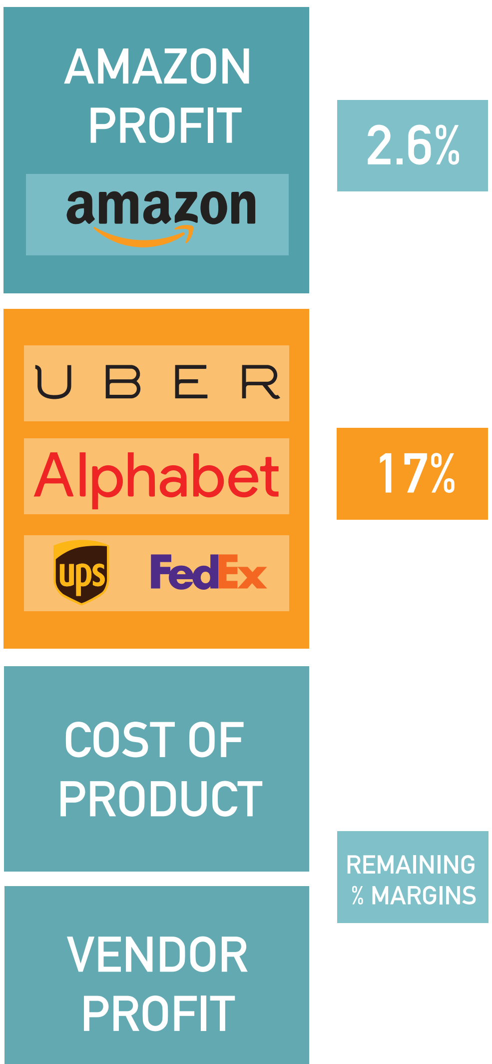
Amazon currently operates a complex global system in which sellers ship products to one of the company's 189 worldwide fulfillment centres, which are warehouses that use algorithms to sort and store products. The packages are ultimately shipped by partners such as UPS and FedEx, who deliver the product to the customers' doorsteps. Although third party logistics companies currently operate as distribution partners, Amazon will always forfeit some control and margin to these partners. Furthermore, surprising competitors from unexpected industries are emerging as e-commerce grows. In 2015, Uber purchased Otto, a San Francisco startup that develops self-driving truck technology and made its first automated delivery in late 2016. Originally disrupting the taxi industry, Uber is expanding into adjacent transportation segments to do the same. Also entering the race is Alphabet, who filed patents in 2017 suggesting the behemoth tech company is also moving into the delivery industry with self-driving trucks. Competition is gaining on Amazon with Alphabet and Uber battling over stolen driverless technology.

With leading players expected to devise their own defensive strategies to remain competitive in the shipping business, competition within Amazon's domain is growing. Amazon's key to creating loyal customers is its Prime program, an implementation that thrives on significantly reducing costs for consumers. However, it cannot sustainably continue this aggressive growth strategy without first rationalizing its shipping cost structure. Analysis shows that the logistics industry is now ripe for Amazon to enter and reclaim its shipping fees by partnering with the largest in self-driving electric vehicles, Tesla Motors. In a deal to develop and own an autonomous electric fleet, Amazon would save on two major variable cost drivers of shipping, labour and fuel. Amazon must act now to protect its margins and leverage a position that no shipping nor technology company has: the world leader in Internet retailing.

First Attempts

In an effort to reduce costs and provide quick delivery, Amazon has made attempts at developing its own shipping solutions. In addition, Amazon found that nearly 80 per cent of U.S. Prime members signed up for service because of free two-day shipping. Developing an in-house logistics system would better allow Amazon to improve access to this service that is generating loyal customers. The Global Supply Chain by Amazon is Amazon's internal distribution system, in which the company has invested in the aggressive construction of fulfillment centres, and numerous purchases of trucks, aircraft, and ships. Even Amazon's high-profile air drone technology is getting more investments in an attempt to cut delivery cost in the long-term. Although these proactive attempts are commendable, they are simply not enough to alleviate Amazon's cost pressures in labour and fuel. If Amazon cannot perform in-house delivery at a lower variable cost, they will be unable to cut third parties out of the delivery process.

AMAZON'S AVERAGE PROFIT BREAKDOWN



Source: Amazon Annual Report

The Tesla Opportunity

In 2016, Elon Musk released the plans for Tesla's next ten years in his "Master Plan, Part Deux." It announced Tesla's plan to develop self-driving electric semi-trucks, coined the Tesla Semi. Traditionally a luxury car manufacturer, the new Tesla Semi will be produced for mass use, as its main value proposition is to reduce the carbon footprint of the trucking industry. As one of the leading industry players with both electric and self-driving technology, Tesla presents a perfect opportunity for Amazon to cut costs, and consolidate its distribution network.

With the highly anticipated launch of the Model 3, its mass market electric car, Tesla is expecting to spend between $2 and $2.5-billion in capital expenditures by mid-2017. However, negative annual free cash flows that fluctuate around $1-billion indicate that financing may be an issue for Tesla. This financing gap is compounded by additional projects, including the Tesla Semi, which still require investment for its development. With competitors such as Daimler scheduling production of its own electric truck for 2020, it would be wise for Tesla to accelerate development of the Tesla Semi. Given the current resource constraints, analysts worry that Tesla will burn through their cash before they can realize returns on their projects. Development of the Model 3 is a hurdle Tesla must overcome before it can focus on the Tesla Semi. However, the scale of Amazon's distribution network will offer Tesla a massive data log that will be instrumental in furthering their electric and autonomous technologies

In 2016, Amazon's $9.7-billion in free cash flows would keep Tesla afloat. Tesla would receive cash to help fund research and production of its first fleet of trucks, and provide a pre-payment for its first order. In exchange, Amazon, would get exclusive access to the first Tesla Semis produced. With Tesla's battery range of over 420-kilometers, the truck fleets would first work alongside the current system, but eventually replace gasoline trucks and third-party shipping services.

Delivery costs are largely comprised of fuel costs and compensation, representing 5 per cent and 60 per cent of total operating expenses, respectively. Implementing self-driving electric trucks would remove both these costs from the equation. After full implementation, the truck fleet would bring $1.1-billion in annual cost savings, representing a 7.5 per cent reduction in operating expenses. By bringing the logistics network in-house, Amazon also regains control over shipping and handling, enabling the retailer to track its packages and better meet customers' demands for quick service. This partnership would build Tesla's capability for semi-truck production and provide groundwork for a long-term relationship with Amazon.

Anticipating Pushbacks

As with any new technology, regulatory pushback is expected since self-driving trucks would take humans mostly out of the equation. Long-haul truck driving employs approximately three million people in America, however, the industry has already been experiencing a driver shortage and projected to be short 240,000 drivers by 2022. Furthermore, with over 400,000 trucking accidents that kill nearly 4,000 people per year, are mainly caused by human error, taking humans out of the equation has indisputable benefits. As of 2017, nine states in the US have opened roads to the testing of autonomous vehicles. As large companies like Uber and Alphabet push for regulatory change, it will only be a matter of time until other states follow suit.

Tying it All Together

Implementing an electric self-driving truck fleet also has substantial long-term cost saving opportunities. When Amazon made headlines for its development of drone delivery through Amazon Air, many people were confused. What was the justification for such a massive investment into a seemingly "gimmicky" product? The rationale is explained by the infamous last mile problem. Delivery companies incur anywhere between 30 to 50 per cent of the entire trip cost within the last mile of the delivery because they must enter neighbourhoods and individually drive up to each doorstep. The last mile is where key cost drivers of labour and gas are spent.

Amazon Air seeks to launch drones to solve the last mile problem, but is faced with one major technical constraint: limited battery lives. Since the drones must be deployed from a central Amazon facility, their reach is severely confined. By implementing self-driving Tesla trucks, Amazon could create mobile warehouses from which drones could be deployed, allowing the delivery systems to reach Amazon's suburban and rural customers. The intersection of the two technologies would allow Amazon to harvest 30 to 50 per cent in cost savings.

If Amazon can successfully implement and integrate self-driving trucks with drone delivery, the online retailer could become a formidable force in the shipping industry. With competitive drone technology and self-driving vehicles, Amazon could potentially replace its partners and offer delivery services to other retailers. With an estimated $400 billion in global revenues, the shipping industry is lucrative and ripe for entering with the correct disruptive technology.

Amazon has already satisfied two important factors required to succeed in e-commerce; a strong first mover's advantage and a growing number of loyal users. To combat the threat of incoming competition and prevent margin erosion, Amazon should invest in a cost-cutting fleet of electric, self-driving cars produced by Tesla. In addition to providing a lower cost alternative to traditional shipping, this backward integration will enable Amazon to spearhead innovation within the logistics and transportation industry. Together with drone technology, Amazon will be enabled to capitalize on the burgeoning autonomous technology segment, outpace competitors, and most importantly, self-drive into a more lucrative future.

EXTENDED REACH FOR AMAZON'S DRONES

Source: IBR Analysis

WAZE: CO-CREATING TRANSPORTATION EFFICIENCY

Faced with debilitating congestion, Toronto should leverage data analytics and a geo-marketing powered incentive program to improve public mobility

Evan Matthews

Introduction

Toronto's traffic problem is no secret: the city is ranked the ninth worst for congestion across Canada and the United States. The mere mention of transportation in the Greater Toronto Area (GTA) conjures images of gridlocked highways, overcrowded public transit, and sluggish traffic on major thoroughfares. In fact, analysts estimate that congestion in the GTA accounts for annual delays of 11.5 million hours, equivalent to 22 million litres of unnecessary fuel consumption. Travellers across the GTA can tell you that Toronto's transportation inefficiencies elicit frustration among city residents, commuters, and tourists alike.

To combat these transportation challenges, Toronto should harness the knowledge of the crowd. By creating a strategic partnership with Waze through the Connected Citizens Program, the city of Toronto can use mobile technology to track and analyze valuable traffic congestion data. These analytics can then be used to redistribute traffic and encourage citizens to move through the city more efficiently. To incentivize users to change travel patterns, the city of Toronto can employ geomarketing software to identify user's most-visited locations, and offer them incentives in the form of customized coupons, discounts, and rewards. In this manner, drivers will receive benefits for accepting alternate travel routes or travelling during non-peak periods.

With Toronto's transportation environment slated to undergo many disruptive construction projects over the next decade, a co-creation initiative between citizens, public transit agencies, and private enterprises could dramatically improve transportation efficiency in the city. By leveraging data transmitted through mobile technology, the city of Toronto could redistribute traffic through existing systems and reduce its dependence on costly, and problematic transportation infrastructures.

Transportation Challenges

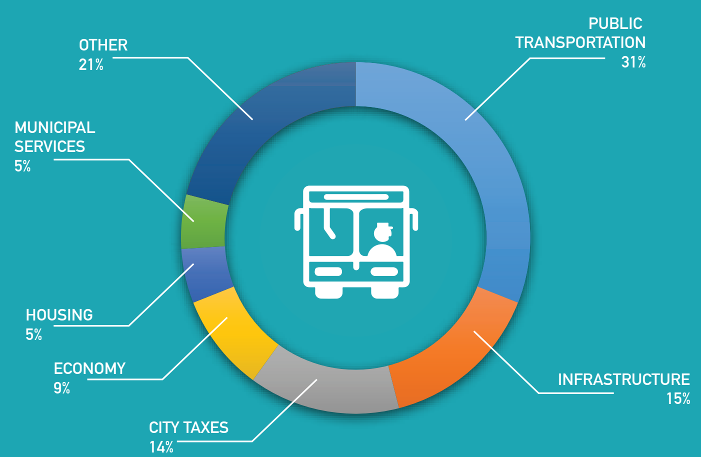
No matter the method of transportation, Torontonians across all demographics and occupations agree that urban mobility is one of the city's most salient and pressing problems. According to a survey conducted by Ipsos Reid in 2014, Torontonians reported that public transit (31 per cent) and transportation infrastructure (15 per cent) are the most important concerns for the municipality of Toronto.

Despite general consensus around the problem, the solution to Toronto's congestion plight remains unclear. With metropolitan areas of the city expanding by approximately 100,000 new residents each year, Toronto's transportation challenges continue to grow in scale and complexity. As population density increases, the inevitable difficulty of building transportation infrastructure continues to rise. Historically, Toronto's municipal administration has struggled to bring transit development plans to fruition, resulting in decades of forgotten promises and under-investment in transportation. The repeatedly delayed launch of the Toronto-York Spadina subway extension provides a recent example of the city's struggle with infrastructure development. Although originally scheduled to begin operations in 2015, the line is now slated for opening in December 2017. Similarly, the Presto payment system has brought GTA citizens little more than frustration; in fact, the Toronto Transit Commission (TTC) reports that, on average, Presto terminals fail 12 per cent of the time.

Reflecting the troubled state of the city's transportation environment, each municipal election in Toronto has featured numerous transit proposals and infrastructure development plans. John Tory's administration recently pledged 74 per cent of Toronto's 10-year capital budget to SmartTrack and other transportation developments. However, even if implemented, the proposed infrastructure will not solve Toronto's congestion problems on its own. SmartTrack, a regional express rail designed to provide relief to Toronto's subway system, could improve long-term mobility outcomes in Toronto. However, this alleviation would come at a substantial cost of $8-billion. Additionally, the proposed route would require major infrastructural developments in central Toronto, many of which would disrupt traffic flow and cause inevitable travel delays throughout the city.

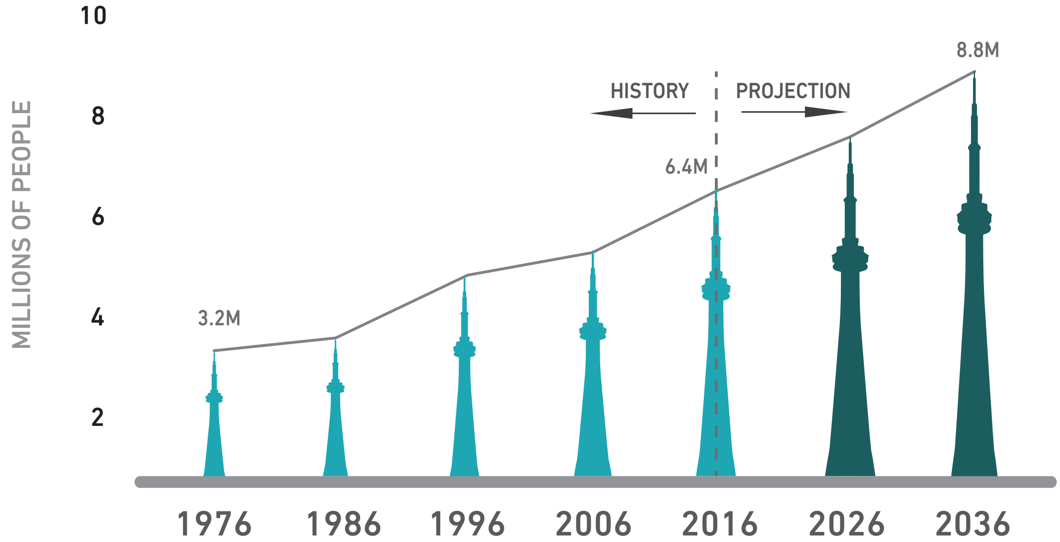
In the short-term, infrastructural development could actually exacerbate the city's mobility challenges; citizens will contend with road closures, construction zones, and public transit interruptions as they navigate the city. Confronted by a growing population and a convoluted transportation environment, how can Toronto improve long-term transportation efficiency without demobilizing citizens in the short-term? Furthermore, if

TORONTO'S MOST PRESSING PROBLEMS AS VOTED BY TORONTONIANS (2014)



Source: Global News

POPULATION GROWTH OF THE GREATER TORONTO AREA



Source: Statistics Canada estimates and Ontario Ministry of Finance

the proposed transportation improvements falter, how can Toronto improve mobility outcomes without relying on infrastructure that may never materialize?

Behavioural Adaptations & Co-Creation of Services

To supplement the addition of new features to the city's transportation landscape, the municipality of Toronto should apply behavioural economics to understand and influence how citizens interact with existing transportation infrastructure. If political and financial capital requirements are hindering physical improvements to the city's transportation network, Toronto should collaborate with citizens to optimize traffic flow. Using digital platforms, mobile technology, and geomarketing tactics, Toronto could develop a co-creation environment, which enables citizens to interact with the transportation environment in ways previously unimaginable.

The convergence of transportation planning and behavioural economics is not novel. For example, tiered-fare transit systems encourage travel during non-peak periods. By nudging citizens to consider alternate travel times in exchange for a reduced fare, many cities such as London, Singapore and Milan employ these tiered-fare systems to 'level out' public transit utilization across time periods. However, these behavioural mechanisms do not need to be limited to public transit. Toronto can further integrate behavioural economics into its transportation environment by enabling a co-creation ecosystem that empowers citizens to make better travel decisions based on pooled intelligence. A precedent for this kind of system already exists: Waze, a popular mapping application owned by Alphabet, uses crowdsourced data to help drivers find the most efficient route to their destination.

Co-creation is defined as "the joint creation of value by the company and the customer, allowing the customer to co-construct the service experience to suit their context." For example, consider a grocery store that promotes self-checkout services or a frozen yogurt restaurant that enables customers to build their own custom treat. Both parties win. Businesses save on operating costs by outsourcing tasks; customers gain a margin of control over their service experience.

Co-creation is particularly attractive in the public sector, where budget cuts often necessitate innovative methods of delivering public services. The city of Boston, for example, outsources roadside improvement initiatives through its 311 program, which allows citizens to report potholes and broken traffic-lights through an application complete with photo-uploading and geo-tagging capabilities. Brilliantly, Boston's 311 program provides a cost-effective and user-centered method of identifying and repairing damaged infrastructure.

Like Boston 311, a co-creation effort to improve public mobility in Toronto would engender cost savings. By creating an application that tracks citizens' transportation data and uncovers behavioural insights, more efficient transportation decisions could be made on behalf of citizens and city planners.

By collaborating with citizens to generate real-time data, the city of Toronto could:

1. Identify underutilized transit services, alternative travel routes, and non-peak travel periods that would enable a redistribution of traffic flow;

2. Incentivize behavioral adaptations from citizens to

"optimize" traffic flow through Toronto's network of roads, railways, and public transit services; and,

3. Make strategic, evidence-based infrastructure decisions that reflect insights and address frustrations provided by citizens themselves.

Operationally, co-creating transportation services is not a simple task. At the scale required by Toronto's congestion problems, a co-creation platform would require marketing and analytics capabilities that most public administrations do not have the resources for. Without the requisite competencies, how can Toronto quickly build a co-creation system that improves transportation outcomes across the city?

Cross-Enterprise Partnerships

To implement a robust co-creation system, the city of Toronto should consider a third stakeholder that can facilitate collaboration between transportation planners and city citizens. Partnerships between Toronto's transportation agencies (e.g., Metrolinx & TTC) and private consumer traffic applications (e.g., Waze) could develop, promote, and sponsor a co-creation platform that helps alleviate the burden of traffic congestion in Toronto. Imagine a government-sponsored version of Waze, powered by crowd-sourced travel data, real-time public transit information, and municipal traffic analytics.

A jurisdictional scan reveals that other municipalities have already entered into partnerships with Waze to solve a variety of traffic management and congestion issues. In fact, Waze's Connected Citizens Program (CCP) has over 100 municipal collaborators, including Rio de Janeiro, Los Angeles, Tel Aviv, Boston, Jakarta, Washington D.C., and Barcelona. With a simple mission to "improve mobility through big data partnerships," the CCP program has seen profound results. Consider Rio de Janeiro, where a partnership with Waze allowed the local transportation authority to manipulate traffic in real-time during the 2016 Olympic games. Likewise, in Boston, the municipal government collaborated with Waze to find innovative methods of routing traffic to accommodate large-scale construction projects. While Waze's CCP manifests differently in each city, a recurring theme underwrites each partnership: city citizens, government bodies, and private enterprises can co-create transportation systems to improve the lived experiences of city-dwellers.

For Toronto, challenge predicates opportunity; with a unique set of transportation issues, Toronto has potential to become an innovator with Waze's CCP. The benefits of a co-creation application are relatively intuitive, but what about the costs? Under the current CCP structure, Waze enters into a free data exchange with municipal partners, but Toronto would still be responsible for funding custom application features. Luckily, mobile applications are cheaper to build than roads or subway systems. Depending on the complexity, high-profile applications cost \$1.5 to 3-million to develop. For comparison, John Tory's administration has pledged \$2-billion over seven years to cover the \$3.7-billion SmartTrack development alone. While infrastructural improvements are certainly necessary, the cost efficiency of mobile co-creation boasts an unparalleled return on investment in Toronto's transportation environment.

To maximize the benefits of CCP, governing bodies must generate a compelling value proposition for both citizens and private partners. With Waze's CCP program actively seeking municipal connections, the City of Toronto would face little trouble inciting a partnership with the traffic management application, especially given that Montreal has entered into Waze's CCP in 2016. For Waze, access to municipal traffic databases is incentive enough to engage in a free exchange of information with major municipalities. After all, the CCP program does not exist by sheer virtue of Waze's sense of integrity or altruism; with each new user or dataset gained through municipal partnerships, Waze's value proposition grows stronger and more robust.

Citizen Incentives & Geomarketing

> *"While a mobile application will not relieve Toronto's traffic problems on its own, the rationale behind co-creation rings true: city citizens, public transit agencies, and private enterprises can collaborate to make Toronto a better place to live, work, navigate, and explore"*

While the prospect of more efficient travel would provide a baseline incentive for citizens, the City of Toronto should consider a reward system that provides citizens with immediate, tangible pay-offs. Specifically, Toronto should consider a nuanced approach of encouraging citizen participation that strengthens local business and unlocks ancillary revenue streams for Toronto's transportation agencies: geomarketing.

Consistent with a mandate to encourage citizens to interact with their city differently, geomarketing would be a natural complement to the proposed behavioural adaptation system. Geomarketing uses customer data to identify a user's commonly visited locations, enabling marketers to target the distribution of discounts and coupons to consumers. By allowing local businesses to integrate user-centered advertisements into the mobile application, the city of Toronto could improve public mobility and promote local commerce simultaneously. Moreover, by providing a platform for local businesses to connect with nearby citizens on an individual level, Toronto could provide rich, user-specific incentives that not only improve transportation efficiency, but also strengthen interactions between citizens and businesses across the city.

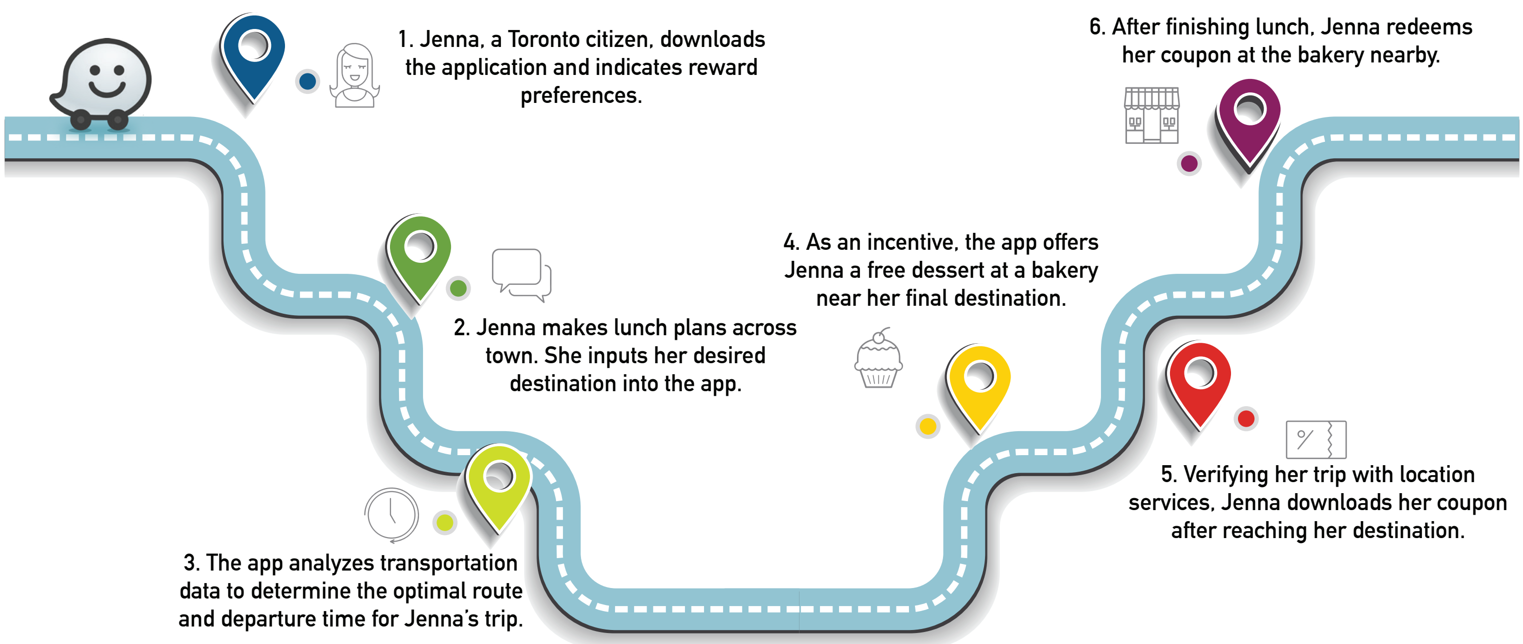
Using geomarketing technology, the application would operate with three simple steps. First, users would input their current location and desired destination. Second, the application would analyze crowd-sourced data and municipal transit databases to determine the user's most efficient route and departure time. Third, the application would cross-reference the user's reward preferences with available promotional offers to create a custom incentive package related to the optimal route for each trip. For example, a user could be offered a coupon for a coffee shop along their proposed route or at their final destination. If users were uninterested in the incentive, they could simply bank transit credits, nudging them to take public transit when convenient and appropriate. The figure below depicts a typical user journey through the city, co-created by city citizens, transit agencies, and local businesses.

In addition to promoting local commerce, geomarketing could have a positive financial impact on Toronto's transportation agencies. Projecting 28.5 per cent compound annual growth, analysts predict that geomarketing will represent an $18.2-billion industry by 2019. Harnessing this trend, Toronto's transit agencies could sell geo-targeted media space to bolster advertising revenues, which accounted for only two per cent of TTC's total operating revenue in 2015. At its core, geomarketing revenue could offset the operating and promotional costs required to sustain a mobile co-creation effort.

Call to Action & Conclusion

Co-creation has the power to optimize transportation development in Toronto. Facing rapid population growth and crippling congestion issues, the city must move beyond infrastructure development plans that waver whenever a new administration takes office. While a mobile application will not relieve Toronto's traffic problems on its own, the rationale behind co-creation rings true: city citizens, public transit agencies, and private enterprises can collaborate to make Toronto a better place to live, work, navigate, and explore. As governments continue to digitize public services, the importance of vibrant co-creation ecosystems grows in size and intensity. Why not start with transportation?

USER JOURNEY



Source: IBR Analysis

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AMAZON ALEXA: GETTING SMART ABOUT SMART HOMES

Using Alexa to foster an ecosystem where data is aggregated and interpreted into predictive insights that can help Amazon streamline the recurring purchase of household goods

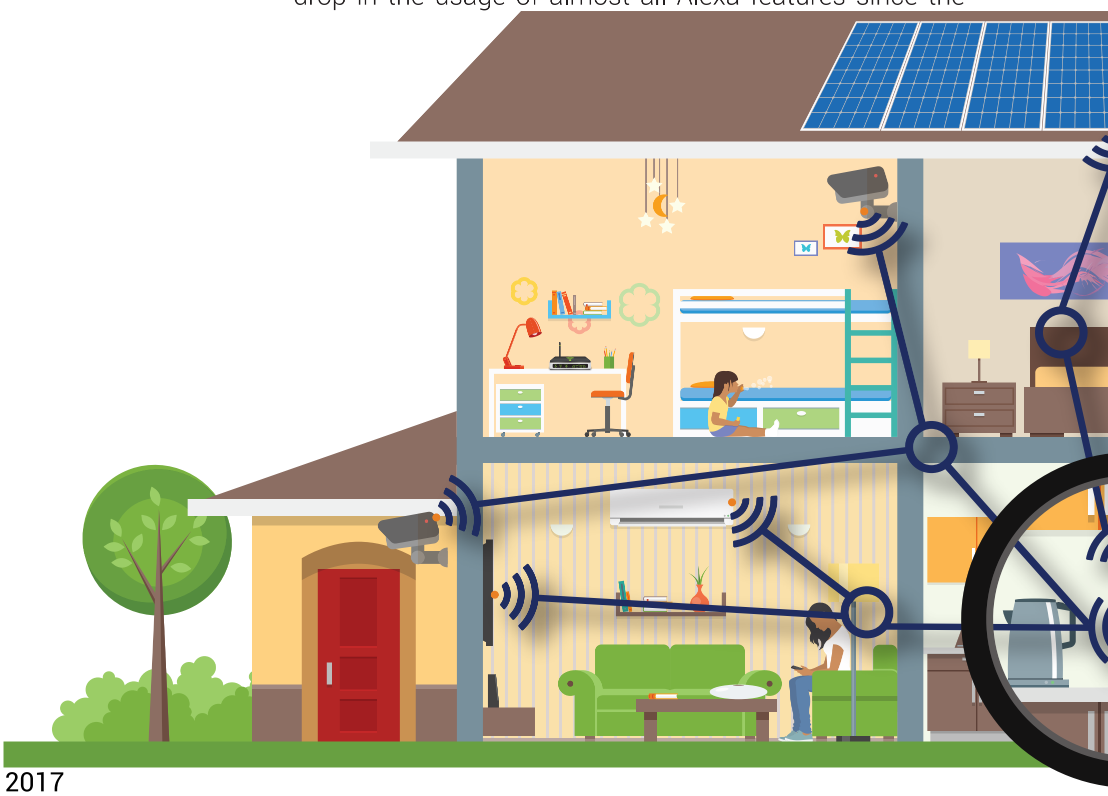
David Aideyan & Ilia Khairetdinov

In November 2014, Amazon was one of the first entrants into the smart home space with its voice assistant software Alexa powering Amazon Echo products. Smart homes are ecosystems where relationships exist between the hardware devices that are installed in homes, the software people operate, and the products they consume. Namely, smart home systems automate staple home functions such as heating, lighting, security, appliance control, and entertainment.

Five million Echo devices have been sold since Alexa's introduction, and the software has been gaining increasing traction in the technology space. Emerging as a clear winner at the 2017 Consumer Electronics Show, Alexa support was built into nearly every device present at the event. Alexa's sheer number of integrations with other smart devices is a result of its early market entry, and could provide a competitive advantage moving forward.

A Problem with Retention

An examination of utilization trends has revealed that Alexa's adoption has not been as successful as originally thought. A study of Echo device owners shows a steep drop in the usage of almost all Alexa features since the



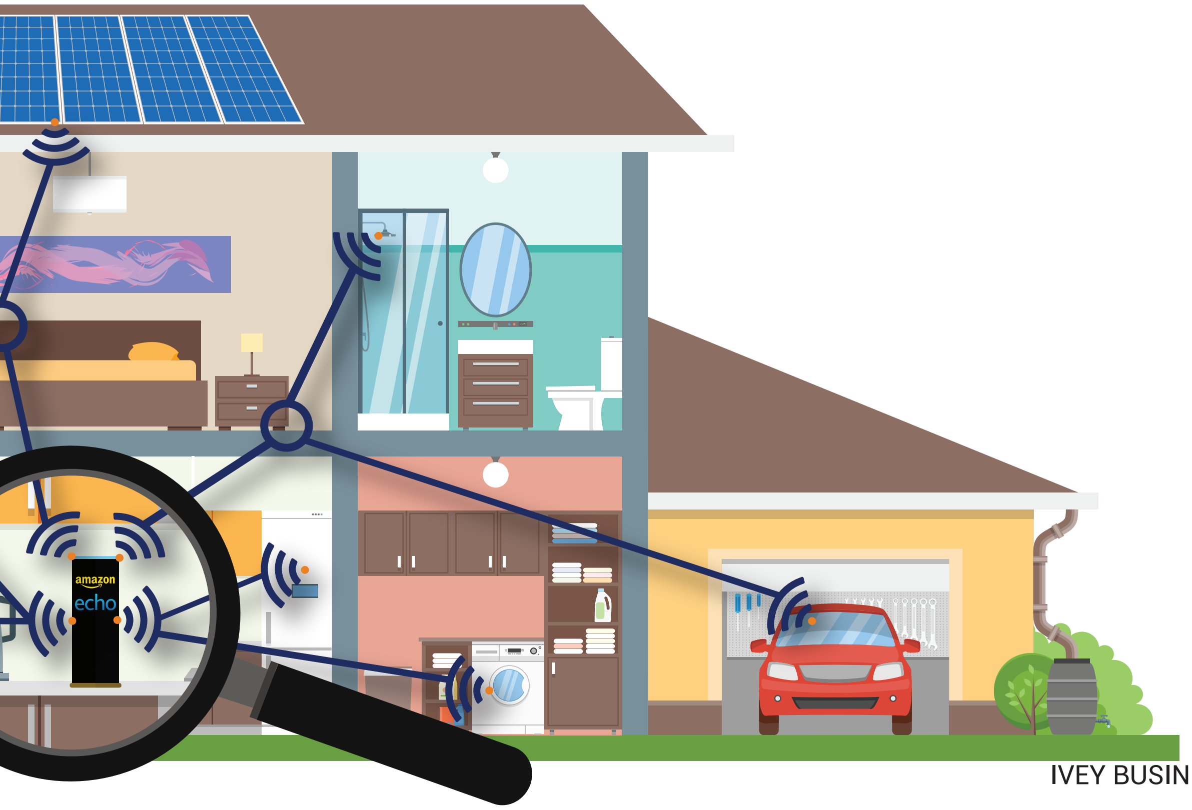
time of purchase. On average, 62 per cent of people that have tried one of Alexa's top six functions did not continue to use the feature regularly. In 2020, $7-billion of Amazon's projected $11-billion Alexa-facilitated purchases are expected to come from voice purchases, which assumes that 50 per cent of Alexa users will buy five times a year. However, only 32 per cent of Echo owners in the study had made at least one purchase through their device, and only 10 per cent regularly used Alexa to add items to their Amazon shopping cart. Meanwhile, Apple's Siri and Google Voice have ongoing usage rates of 52 per cent and 30 per cent, respectively. While Alexa has had integration success, its severe user retention problem will make it difficult to achieve a sustainable leadership position in the smart home market.

Lacking Functionality

Alexa's low user retention rate can be attributed in large part to its lack of functionality. In its current state, Alexa acts as a simple voice-control system that is only able to issue direct commands to smart devices when explicitly controlled by the user. Because it cannot transfer data between devices to draw comprehensive insights, the consumer must be involved to make those links. For example, a smart fridge may know what the consumer is cooking for dinner, but because this data is withheld from the stove, the consumer needs to manually set the right temperature and cook time through the Alexa interface. Simply put, these devices are only as smart as the data they can access. Thus, an unconnected ecosystem restricts the full potential of automation in a smart home; if Alexa could bring these devices together, it would be able to reduce user intervention and significantly increase utility for the consumer.

The Importance of Winning in the Smart Home Market

Successful penetration of the smart home market is crucial to Amazon for several reasons. The first of which is an increase in subscribers for Amazon's Prime service. While the average Amazon customer spends $625 on Amazon each year, the average Prime user spends $1,500. As more users sign up for Prime in order to use Alexa's features, Amazon's sales and consequently bargaining power with suppliers will increase. The second major opportunity is in increasing the sale of recurring households goods to Alexa owners. To put this in context, the average American household spends $2,244 a year on household products and Prime users spend 18 per cent of their budget for household goods on Amazon, which equates to roughly $405 per year. Alexa could be used to facilitate the automatic restocking of all household goods via Amazon, which presents an opportunity valued at $114-billion amongst Prime members in the U.S. alone. This powerful control over e-commerce buying decisions would be a great complement to Amazon's expansion into the lucrative grocery business, which represents a $485.9-billion market solely for U.S. Prime members. If Alexa cannot achieve widespread adoption, Amazon's core business will be susceptible to significant market share losses if the winner of the smart home battle pushes consumers to a different e-commerce medium.



Trends in Automation

Today, growth in e-commerce is heavily influenced by two Internet of Things (IoT) trends. Demand-side automation is reducing the amount of consumer involvement needed to acquire goods and services, and supply-side automation is reducing the amount of human involvement needed to distribute goods to the end customer. Amazon is a global leader in supply-side automation through its fulfilment centers and advanced logistics. Keeping products stored in its fulfilment centers has allowed the e-commerce giant to create a distribution network that offers consumers remarkably fast and predictable delivery. On the demand side, Amazon leverages its A9 product search engine and advertising technologies to understand exactly what a customer wants, and when they want it. A successful Alexa-enabled smart home environment will allow for significant improvements in demand-side automation for Amazon.

Success in Smart Homes

To be a leader in the smart home market, Amazon must have some form of control over hardware, software, and product. Alexa's limited hardware penetration means it does not have the ability to close the ecosystem without its integration partners, making these relationships crucial to success. Alexa not only competes with numerous home automation softwares, such as those of Google, Apple, Microsoft, and IBM, but it also vies with the very devices it integrates with, as many come with software pre-installed. Samsung and Haier are among select hardware companies that are racing to not only build software into their own smart fridges, but also to establish them as smart hubs similar to Alexa. Product refers to the control over household goods in which purchases are enabled by the smart home. While Amazon is in a strong position in the product space, it is only an entrant in the hardware space and its software network has not been as progressive.

While smart hub softwares are attempting to bridge hardware and product, it has been difficult because the value created by integrating smart devices together is still undefined amongst industry players and unclear to customers. It has been incredibly difficult to reach a consensus on how to aggregate data amongst hardware and software developers. This means a winning strategy must give Alexa strategic leverage with manufacturers so their hardware is not only Alexa-compatible, but also more effective and useful when used with Alexa. Additionally, a strategy that leverages Amazon's strong supply side competencies will create a barrier that would cost competitors significant financial and human resources to match. Involving the product in the strategy will begin to shift household norms from buying consumer packaged goods (CPG) in-store to buying CPG online, and ultimately through Amazon.

Driving Change

Alexa struggles to maintain an ongoing presence in the households of users; most Alexa users do not use Alexa features regularly and are hesitant to order through voice. To combat this problem, three steps must be taken to develop a hardware ecosystem that is fully integrated and truly smart. This will help Alexa better predict purchasing needs and intercept the traditional buying process with automated purchases, creating significant new value for both consumers and Amazon.

Create a Two-Way Ecosystem

To increase usability and device options for the consumer, Alexa must be shaped into an interpreter of data and distributor of insights rather than a simple voice-control system. The opportunity lies in creating an ecosystem where smart devices feed information to Alexa, who translates raw data into insights which can be used to perform autonomous functions via smart devices, learn consumer patterns to make purchasing predictions, and identify opportunities for time and cost savings for the homeowner.

One step to achieving this is to create a universal language that devices can use to send data to Alexa and read insights about the consumer that they, in turn, can use to take action. For example, a security system can collect data on how many people are in each room of a house at any given time. Through an Alexa-enabled ecosystem, localized lighting and heating can be automatically adjusted based on this data. A network router can also collect data on the identities of individuals based on the IP addresses of their phones, which can be combined with the data from the security system to make entertainment and purchasing decisions based on the preferences of specific people.

Mirroring Apple's App Store strategy, toolkits will be used to simplify the process of developing use cases for device manufacturers based on Alexa's insights. Companies like LG and Whirlpool are building smart devices without trying to develop their own hubs, and inclusion in the dynamic Alexa ecosystem would provide a competitive advantage for their products. By using a universal language, Amazon will be able to create unique insights about the consumer buying patterns that were never previously available.

Make the Product Smart

The second element of Amazon's strategy is to integrate CPG products within the ecosystem to innovate on demand-side automation. Alexa should be paired with a stand alone sensor technology that can be placed in fridges and cupboards, which will be able to detect the presence of Amazon Prime products in the home using radio-frequency identification (RFID) technology. RFID tags placed on Prime products in Amazon's fulfilment centers will have unique identifiers for each product stock keeping unit (SKU), and one sensor will be offered to Prime users for free with the purchase of an Alexa device. When the connection to a product is lost, Alexa will suggest the stock of the item has been depleted and prompt the user to repurchase the product or add it to their shopping cart to buy later. Giving Alexa inventory data of the consumer will close the loop in predicting purchasing needs. Ultimately, this technology will enhance the consumer's lifestyle by significantly reducing stock-outs, and recommending stock based on insights from Alexa integrated devices.

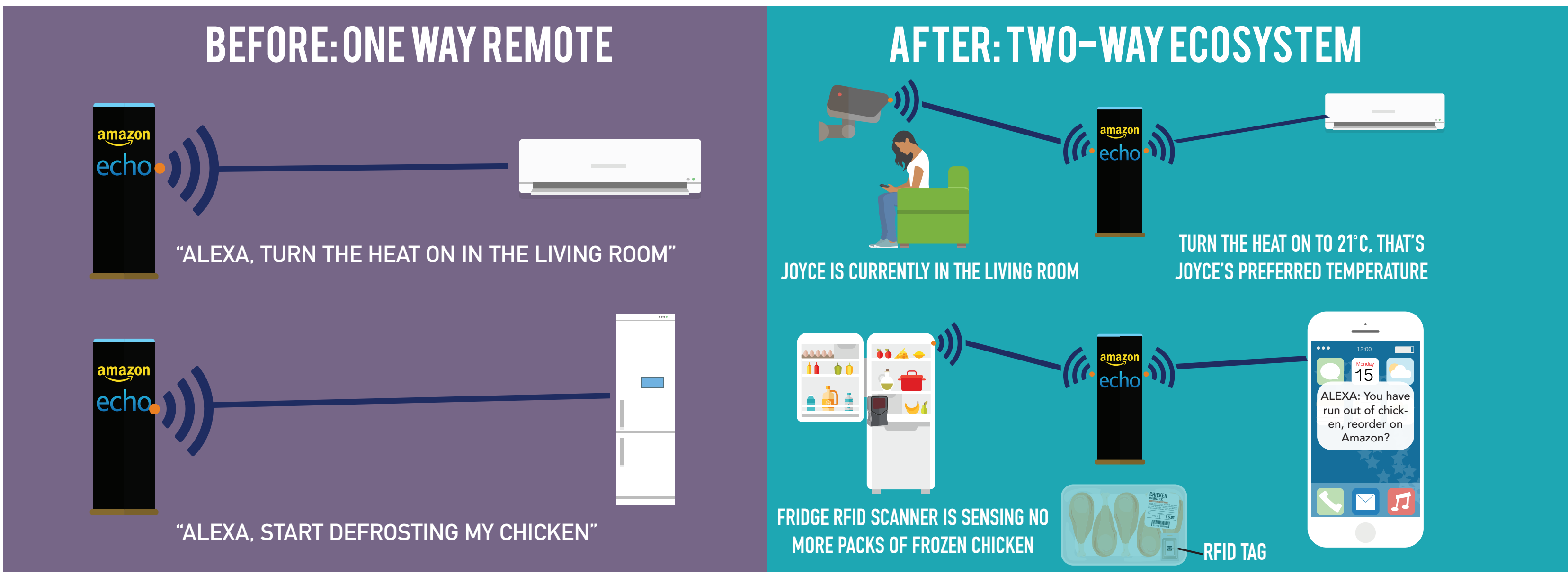
Pair Insights with Purchasing Needs

Finally, Amazon must recommend relevant purchases for the home early in the buying process. This will increase Amazon's share of wallet for its existing customers by intercepting the traditional buying process. Additionally, consumers will be able to set up automatic purchases, saving them time and helping Amazon suppliers by eliminating the opportunity for competing products to promote a brand switch in-store. Amazon will have more control over suppliers as they will have to compete on price to be promoted for automated purchase. In accordance with Amazon's founding strategy, more selection and lower prices drive a better customer experience, leading to more traffic. Understanding purchasing patterns and buyer behaviour will allow Amazon to capture a huge piece of the market before competitors can enter, and will also put up entry barriers.

To execute this strategy, Amazon should run an advertising campaign that offers a free Echo Dot with the purchase of a new Prime membership and an Echo Dot at-cost of $50 to existing Prime users. Every percentage increase in the share of household expenditures amongst Prime customers will create an additional $1.4-billion of revenue for Amazon. In similar fashion, every additional percentage increase in Prime subscriptions as a result of Alexa will produce $1-billion in revenue for Amazon. To put this in context, the immediate impact of a 10 per cent increase in the share of household product expenditure in combination with a 10 per cent increase in the percentage of customers on Prime would bring Amazon $27-billion in additional sales. Amazon's 15 per cent commission on these sales translates to an additional $4-billion in annual gross revenues.

The advent of smart home technology is slowly creating a world where fridges will know when the homeowner is out of milk and automatically restock itself. Smart homes will be able to identify friends and family and suggest movies, music, and TV shows based on each individual's preferences. The home will not only know when the family is present, but also that they are hosting book club next Tuesday, and adjust security, lighting, heating, and recommend snacks for one-touch purchase. Through the implementation of these recommendations, Amazon will leverage its unique competencies to become an integral part of the household and increase its penetration in the home goods segment.

DRAWING INSIGHTS FROM A TWO-WAY ECOSYSTEM



Source: IBR Analysis

TWITTER: E-COMMERCE TAKES FLIGHT

Partnering with Amazon in e-commerce will drive growth and help Twitter end its reliance on the competitive advertising industry

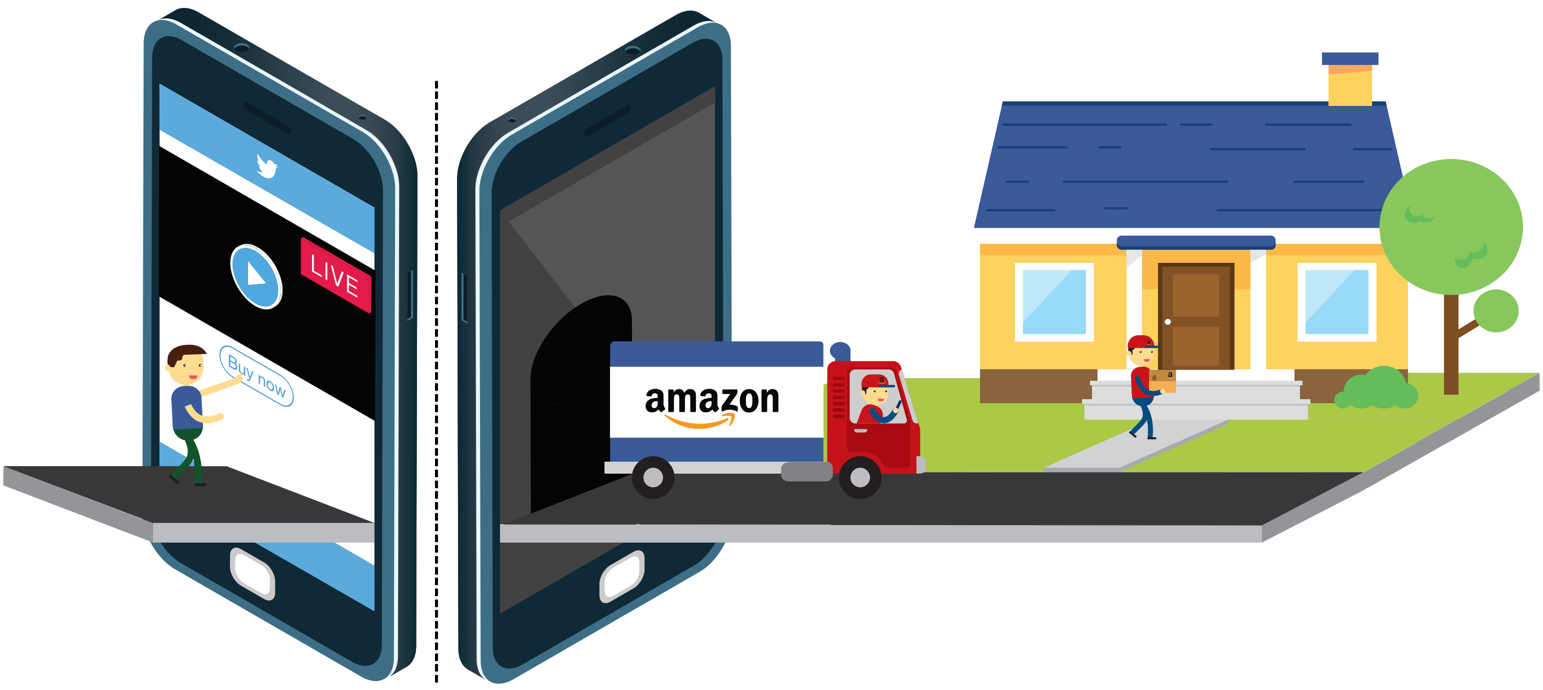
Justin Tang & Carolyn Wu

The Fall of the Bird

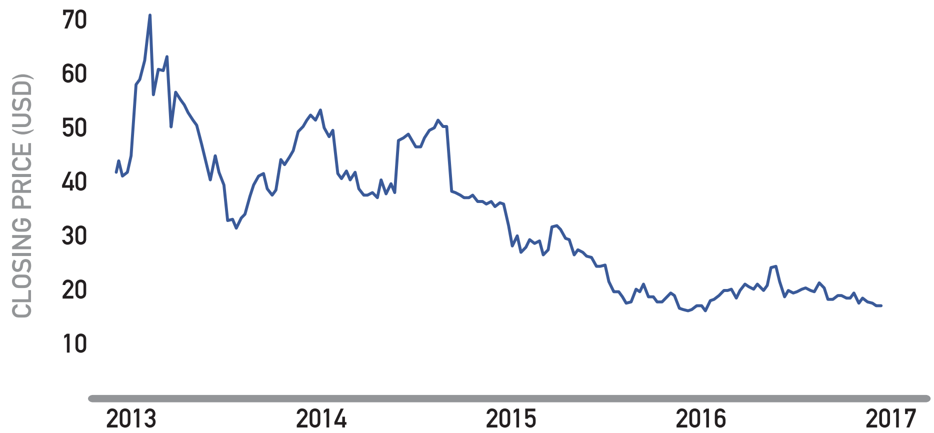
Twitter has a long history of being unable to generate advertising dollars from its content. Despite having 313 million monthly active users, Twitter struggles to lure advertising dollars with uninspiring tweet-based ad offerings and sluggish user growth. Meanwhile, social media applications such as Snapchat and Instagram have experienced exponential growth, and advertising spending is stretched thinner across more platforms. These new mediums offer engaging dynamic media formats and modern video-based advertising opportunities.

As of February 7, 2017, Twitter's stock was trading at $18.26, representing a fall of over 76 per cent since its historical high of $73.31 in December 2014. Just several months ago, Twitter announced its plans to lay off 9 per cent of its workforce as part of a broader plan to reduce costs and refocus the business. It is clear that the company has been on a downward spiral since its IPO, consistently slipping below earnings expectations driven by lackluster growth in advertising revenues.

Ever since co-founder Jack Dorsey returned to the helm of Twitter in 2015, the company has been increasingly focused on promoting live video and commentary in the hopes of revitalizing the platform as a social media news network. Twitter is betting on these "live" experiences to broaden its appeal and attract more advertising dollars from video advertisements inserted into these live streams. However, in the company's latest attempt to invest in live events and entertainment, taking a page out of Facebook's playbook, payback has proven to be slow.



TWITTER STOCK PRICE



Source: Yahoo Finance

Twitter could take an innovative approach to revenue generation by integrating e-commerce directly into its live-streamed content and unlock new value for advertisers. This can be done by partnering with e-commerce giant, Amazon, to power Twitter's backend logistics.

Live Streaming - Twitter's Saving Grace?

To bolster its "live" experience projects, Twitter recently acquired numerous broadcasting rights for high profile events including the NFL, Wimbledon, MLB, NBA, and PGA. The company also partnered with CBS and Bloomberg to provide non-sports TV content as well as red carpet live streams, through a partnership with Dick Clark Production.

On September 9, 2016, the first NHL game ever live-streamed on Twitter brought in an impressive 2.1 million users. More remarkably, up to 15 per cent of viewers who tuned in were new Twitter users, confirming live-streaming as the right catalyst to increase user growth. Nevertheless, investors demand to see concrete "impact on advertising spend" before the market's neutral outlook on the stock can be upgraded.

Twitter's strategy was questioned again by investors following the company's release of its Q4 2016 earnings. The company's reported revenues of $717-million missed Wall Street expectations of $740-million by a wide margin. Despite the fact that daily active users grew by 4 per cent, Twitter reported declining advertising revenues for the first time ever. User engagement is strong, but advertising sales clearly lagged behind. There is little evidence that money can be made through plain vanilla video ads.

E-Commerce - An Opportunity to Bring Flight to Revenues

Although Twitter's initial effort to monetize live-streams failed, Twitter's strategic shift towards live events, commentaries, and news consumption presents a unique e-commerce opportunity. By encouraging users to tune in to an account at a certain time and duration, user engagement to increased greatly. More importantly, the content that is being streamed often inspires product purchases through two main avenues:

1. Product Placements: The most prominent example was by Beats by Dr. Dre; the brand that placed products in the hands of athletes during the 2014 Super Bowl game. Players could then be seen on television wearing these headphones prior to the games, which inspired viewers to explore Beats products in further detail; and

2. Direct Endorsements: Popularized by Weibo and Taobao, two of China's largest social media and e-commerce players, direct endorsements would enable live-streamers to showcase products to their followers in a live video stream. Users could then purchase the products directly on the platform. Similar trends can also be seen in North America through YouTube, where "YouTubers" endorse products through pre-recorded videos uploaded to the service.

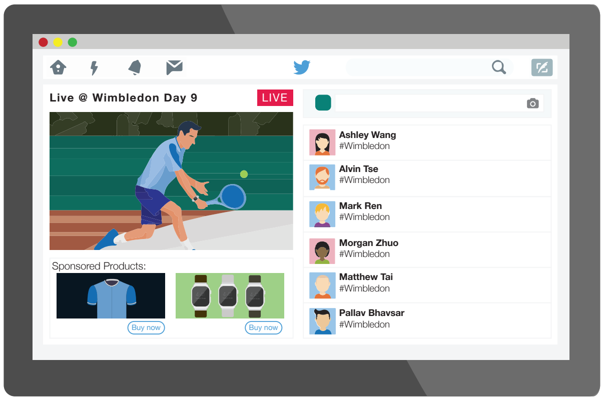
These trends present tremendous opportunities to sell products in conjunction with Twitter's live-streaming strategy. Twitter can leverage its live-feed content while integrating e-commerce directly with brand advertising campaigns so that viewers can directly purchase products showcased live on Twitter. This consumer engagement focused marketing alongside a complete e-commerce experience can lead to better conversion rates for advertisers.

Past Failed Flights

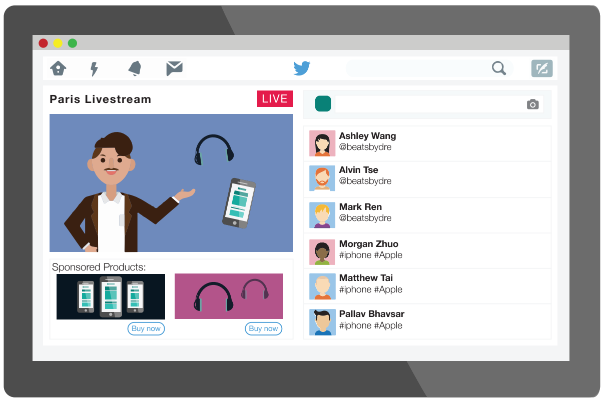
Although the idea is innovative, it is not entirely uncharted territory for the social media giant. In September 2014, Twitter introduced "shopping-enabled tweets" that allowed

MOCKUP: SPONSORED PRODUCTS

PRODUCT PLACEMENT



DIRECT ENDORSEMENT



Source: IBR Analysis

users to transact directly with merchants. To implement this project, Twitter partnered with multiple e-commerce platforms including Bigcommerce, Demandware, Shopify, and Stripe. However, earlier this year, the company phased out the feature due to a "lack of traction" and pivoted away from e-commerce completely.

While the proposed live-stream-enabled e-commerce platform is technologically similar to this failed implementation, the previous function was merely the addition of a "buy" button that allowed users to buy directly within seller's tweets. The effort failed because of Twitter's age-old problem: neither consumers nor advertisers seem interested by Twitter's offering to promote products using brand accounts or tweets. In contrast, live-streaming with integrated e-commerce options would provide a compelling value proposition for both marketers and consumers.

Weibo and Alibaba - A Perfect Pairing

Although integrating e-commerce into live event coverage is a rather untested business model in the West, the marriage of e-commerce and live-streaming is a growing trend in China with proven successes. Weibo, China's Twitter equivalent, is a microblogging website that enables users to follow celebrities and share user-generated content. In 2013, it entered a strategic partnership with Alibaba, the world's largest e-commerce platform, to integrate e-commerce directly into the social media site. Users are now able to purchase Alibaba products directly on Weibo, where products can also be shared across its network. This deal is expected to generate over $380-million in advertising revenues for Weibo.

Alibaba has also experimented with using live-streams to sell products in China. Shop owners and brands often hire popular live-streamers with large fan bases to promote their goods. The platform reported a whopping 32 per cent conversion rate, meaning that over 320,000 items had been added to shopping cart per one million video views.

Additionally, Weibo's success with combining social messaging and e-commerce within one application has shown that integrated experiences are far superior to separate ones. Ultimately, these integrations could lead to higher user growth and better retention, two outcomes that Twitter desperately needs today.

Given similar trends in the growth of live media internationally, as well as proven advertising demand in this medium, the e-commerce monetization model for social media has the potential to be replicated globally. In China, live-streaming attracted over 109 million monthly active users in 2016 compared to a mere 53 million in 2015. Similarly in the West, 81 per cent of Internet users watched more live-streams in 2016 than they did in 2015. Most importantly, 82 per cent of viewers prefer brands that engage through live media rather than through social media posts or blogs, demonstrating the commercial significance and viability of global live-streaming. For these reasons, a live-streaming e-commerce business model that is spearheaded by Twitter could translate very well into the U.S. market.

Learning from Weibo and Alibaba's Success

By introducing brand advertising during live-streams, Twitter can implement virtual product placements of merchandise, which users can click as they appear within the live video frame for purchase. This enables Twitter to serve as an online social marketplace, allowing merchants to build brand awareness through a unique, and engaging experience with customers. Users will also have the ability to leverage their network of followers by sharing product discoveries and recommendations.

These brands would find selling on Twitter a natural and effective extension of their strategy. In the case of

Beats, the company will have the ability to advertise and directly sell the product to the audience. Ultimately, this strategy will provide an end-to-end marketing solution no other platform offers, leading to better conversion from advertisers' spend. Studies have shown that such inbound leads have 8 times higher conversation rates relative to outbound leads such as traditional advertisements. This strategy will allow marketers to sell products directly from the lead, which also contributes to better conversion rates.

Flying Forward - The Amazon Partnership

When Twitter first attempted to introduce e-commerce functionalities into the platform in 2014, the company only operated as a transaction intermediary for a handful of small e-commerce sites, most of which were relatively unknown to consumers. It took over a year for key partners such as Shopify and Best Buy to come on board. Even then, the effort was fragmented and decentralized. The platform posed no clear benefits to merchants or buyers and its potential was not harnessed. In essence, execution was lacking and the e-commerce partners lacked infrastructure to support Twitter's ambition.

Learning from the last misstep, Twitter could partner with Amazon and leverage their world-class e-commerce system. This partnership would provide Twitter with the backend necessary to support its e-commerce strategy. Rather than serving as just the transaction intermediary, merchants who wish to integrate selling into their Twitter advertising strategy can distribute their products through Amazon. This strategy allows advertisers to augment their advertising and convert potential targets into customers, all without leaving Twitter. The partnership will see the two companies come closer in areas of account connectivity, data sharing, and online marketing for merchants. It will also help connect millions of merchants on Amazon by leveraging Twitter's 313 million active users, which will accelerate revenue growth for both parties.

Talking Returns

Incremental Revenue arising from the Weibo-Alibaba Partnership = $299.7-million

Weibo Incremental Revenue per User = 299.7 million / 3 Yrs / 198 million users - $0.5045 (per user)

Twitter Incremental Revenue Potential = $0.5045 x 320 million users = $161.4-million (per year)

The Weibo-Alibaba partnership in China earned $299-million dollars for Weibo in the past three years since the deal was in place, accounting for almost a third of Weibo's revenue. The partnership even resulted in a 322 per cent increase in Weibo's stock price since September 2015.

With 198 million users, that translates into 50.5 cents of incremental revenue on a per user basis. Twitter has roughly 313 million users worldwide. Scaling that figure to Twitter's user base would suggest an additional $160-million dollars in revenue on a yearly basis. In 2015, Twitter recorded $2.2-billion dollars in revenue. That means that e-commerce alone has the potential to bring in an additional 7.2 per cent in revenue. Moreover, improving advertiser interest with this new offering could also spillover to other advertising products such as traditional promoted tweets, accounts, and trends.

In addition, Twitter should negotiate to receive a portion of Amazon's incremental earnings from the partnership. Twitter could also charge advertisers who wish to have their products displayed during live-streams a fee on either a per impression or per click basis.

The partnership not only allows Twitter to leverage Amazon's e-commerce infrastructure, but also poses significant upside to Amazon's business. Amazon is a company that focuses on capitalizing on real-time trends to generate product recommendations for consumers. By partnering with Twitter, Amazon could leverage Twitter's extensive live-stream content and vast social media network. It would be complementary to Twitter's real-time e-commerce strategy and provide an additional channel to sell more products. Further, Amazon has long been vying for a deeper integration of social media into their platform. On Twitter, Amazon currently has a feature that allows customers to add products they see into their Amazon cart by simply replying #AmazonCart, showing the extent to which the company has gone to foster deeper integration with Twitter.

As brands today recognize the importance of engaging with customers at a deeper level and building strong relationships beyond just the transaction, a partnership between Amazon and Twitter would ignite both companies' evolutions into accessible, end-to-end solutions for customers and advertisers alike.

SOCIAL MEDIA

MEDIUM: **THE MEDIUM IS THE MESSAGE**

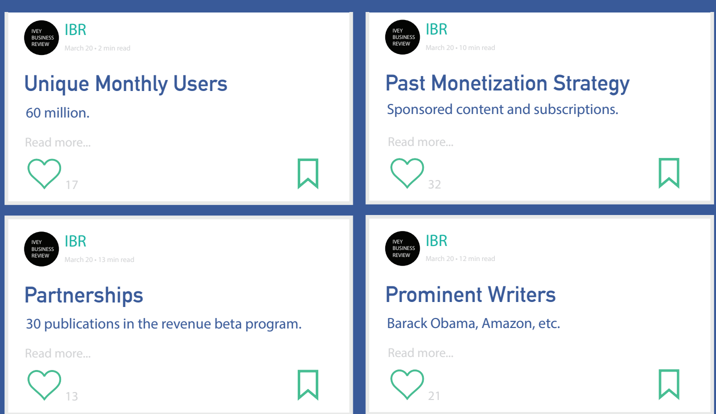
Digital media partnerships shift incentives and capture user engagement others have failed to achieve

Leroi Yu

After a successful year in 2016, 50 of Medium's staff, equivalent to one-third of Medium's employees, were shocked to discover that they were being let go. Along with the layoffs would be the closure of Medium's New York and Washington D.C. offices. Evan Williams, CEO of Medium and co-founder of Twitter and Blogger, explained that this was meant to be part of the search for a new business model without a reliance on sponsored content, with specifics that still needed to be defined.

Similar to Twitter and Blogger, Medium is a social media and publication platform that allows anybody to share their opinions via posts on the website. What differentiates it is its writing platform versus Twitter's 140-character broadcast approach, and its ability to aggregate content versus the separation found on Blogger. While its focus on advertising and partnerships with small publications led to 300 per cent reader and post count growth, this focus detracted from Medium's core mission: to build a publishing platform that would allow anyone to share their ideas via written post and help the high quality pieces rise to the top. Since Medium was no longer interested in selling sponsored content, it no longer needed the employees in those business functions. William's concern was not immediate profitability. Rather, he was in search of a model that would provide long-term sustainability and improve Medium's incentive system for publishers.

COMPANY OVERVIEW



Source: Medium

A Divergence from its Core Mission

Despite its growth story, Medium's approach to monetization and partnerships lead to a divergence from its core mission. In the advertising industry, success is measured primarily based on impressions. As a result, Medium authors are incentivized to maximize page views rather than strive for content quality. Specifically, the use of sponsored content, where stories from partner brands are added to author posts, and advertisements move the focus of an article from generating discourse to generating page views. In response, Medium recently announced a shift from advertisements and sponsored content in favour of a consumer subscription product released in March 2017. The consumer subscription product is expected to give readers access to premium content from multiple publishers. While it is an improvement on the current incentive system, Medium must overcome two significant hurdles in order to realize its core mission in the mainstream consumer market. First, it must develop a strong enough value proposition to encourage its user base to adopt the subscription product. Second, it must make up for lost revenue that will result from the discontinuation of their advertising strategy.

Industry Challenges

While Medium and the broader journalism industry focus on different content, they face similar challenges. The inherent issue that both parties face is that customers do not find favourable value in paying for journalism content. Social media has become the preferred distribution point for news as 44 per cent of sampled people around the world use Facebook for free news. Consumption has shifted, with distribution points moving away from newspapers and television to headline skimming and interactions on social media. Traditional sources, like digital newspapers, can no longer depend solely on content to drive traffic and engagement on their websites.

In response, publications are becoming increasingly aware of the benefits of user engagement, with 9 of 10 newspapers listing user engagement as their top priority. For example, The New Zealand Herald's incorporation of tailored content, another aspect of engagement, resulted in 24 per cent growth in number of weekly unique web visitors. An increase in web visitors subsequently increased the Herald's revenue from targeted advertisements by 47 per cent. For traditional news outlets, the challenge comes from motivating users to do more than just leave a comment or skim through the comment section.

Medium's Strengths

Medium is different on this front. It is the common platform that anyone can use to directly present their views to a mass audience. In 2015, The *New York Times* wrote a scathing article about Amazon's workplace practices. Amazon responded to it in a Medium post, to which The *New York Times* rebutted on its Medium account as well. This not only sparked engagement between two globally renowned institutions, but started multiple threads of input amongst thousands of common users. In addition, Medium's platform emphasizes the social media aspect, allowing users to follow the activities of others, mention other users in the comment sections of stories, and highlight important or impactful sections of posts. Mentions are like tagging in other platforms. Highlights emphasize certain parts of stories the reader labels as important. These are viewable to followers, with the most common highlights displayed to all readers, encouraging further interaction and user engagement. This level of engagement leads to network effects in the user base, where more established writers choose to write on Medium and more readers are captured and retained.

In addition, authors and publications benefit from being able to outsource design and hosting requirements to Medium, streamlining the publication process and allowing them to focus on producing quality content. For independent authors and indie publishers, an existing platform saves both time and money.

Evaluating the Planned Subscription Product

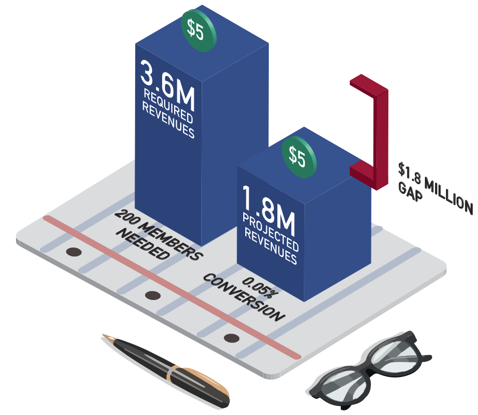
Friction occurs when consumers make conscious decisions on payment. Subscription models have reduced friction compared to individual paywalls or microtransactions. However, even with reduced friction, subscriptions only make a small portion of revenues for publishers. As an example, one of Medium's partnering publications, Film School Rejects, generated only 10 per cent of its revenues from subscribers. The majority of the business is subsidized by revenues from sponsored stories and advertisements. Despite decreasing emphasis on the partnership program at Medium, publishers will still play a crucial role, adding legitimacy and professionalism to the platform. Even with a hit on margins, publisher posts typically account for the most popular posts, driving a large portion of the traffic and discourse that Medium needs to retain its network effect. This can only continue happening if the value proposition holds true for this stakeholder group.

On the platform side, projected revenues from the subscription product is calculated. Based on Medium's 60 million monthly unique visitors, a conversion rate of 0.05 per cent based on the digital newspaper industry average, and a price of five dollars, Medium could generate $1.8-million annually.

$$Revenue_{proj} = 60M\ monthly\ unique\ users \times 12\ months \times 0.05\%\ conversion \times \$5\ price$$

On the publisher side, the amount of revenue the revenue beta program currently generates for publishers is calculated. Film School Rejects currently has around 200 members. This is used as a proxy for the average publication on the basis of size. Additional assumptions include a default price of five dollars as set by Medium, membership revenue representing 10 per cent of total revenue, and 30 publishers in the revenue program. Based on these factors, publishers require a total of $3.6-million to maintain steady state and not lose revenues. This represents a deficit of $1.8-million.

REVENUE PROJECTIONS



Source: IBR Analysis

$$Revenue_{current\ model} = \frac{200\ members_{target} \times \$5\ price}{10\%\ (membership\ as\ a\ \%\ of\ total)} \times 30\ publishers_{revenue\ prog.}$$

While sensitive to price and conversion rate, this analysis provides information regarding feasibility. Even with added premium features, it would be difficult to convince customers to commit at price points required to breakeven. While conversion is difficult to predict, stronger monetization options will be needed as Medium scales, and more revenues need to be distributed to a larger pool of writers. For this to happen, Medium needs to pursue a supplementary revenue source that can subsidize the mass publication portion of the company. Medium is about attracting top-end content, which is a direct supply issue. While a consumer subscription product helps monetize the platform, it fails to directly address this challenge.

Reconsidering Medium's Strategy

Medium currently focuses on a select target market. The most common tags on top stories are entrepreneurship or technology focused, being included in most top stories. While there are topics such as sports, fitness, cars, weddings, and finance, these occurred zero times in the top stories. The observed pattern of top story topics is driven primarily by the reader demographics. Readers are predominantly college graduates aged 18 to 34, a large portion of whom earn salaries over $100,000. The concentrated reader base and article scope are directly linked as readers determine the popularity of top articles. While certain newspapers and publications have succeeded using a targeted approach, Medium is different. It benefits from not being pigeonholed into certain topics based on core expertise. Instead, its expertise is only limited by the readers and writers it can attract and retain. By expanding the scope of topics it targets from its current state, Medium can attract a larger pool of readers with differing interests. As a result, Medium can benefit from stronger readership and engagement.

In addition, despite strong growth, the current business model under-emphasizes the independent writer. In 2016, independent writers represented 26 per cent of the most popular articles. However, only publishers have access to monetization options or other incentive models. Medium lacks a dedicated strategy to develop individuals and incentivize proven independents to continue writing thought-provoking articles. What results is a pool of proven contributors who use Medium as a tangential platform for their work, one they can be less committed to once discovered by more established organizations. Medium should instead target a diverse range of contributors, from influencers, publishers, and independent writers. If Medium is to develop a sustainable and democratic approach to online journalism, it needs to develop a community that encourages independent production as much it encourages professional publication.

Establishing a New Enterprise Strategy and Incentive Program

The issues that the platform faces are two-fold: generating enough revenue to maintain steady state for publishers and incentivizing independent authors to generate content. Both areas are affected by content distribution, which serves as an important lever for Medium's sustainability going forward. Given Medium's proven expertise in user engagement and the need for stronger author incentives, the platform should establish a two-sided partnership program.

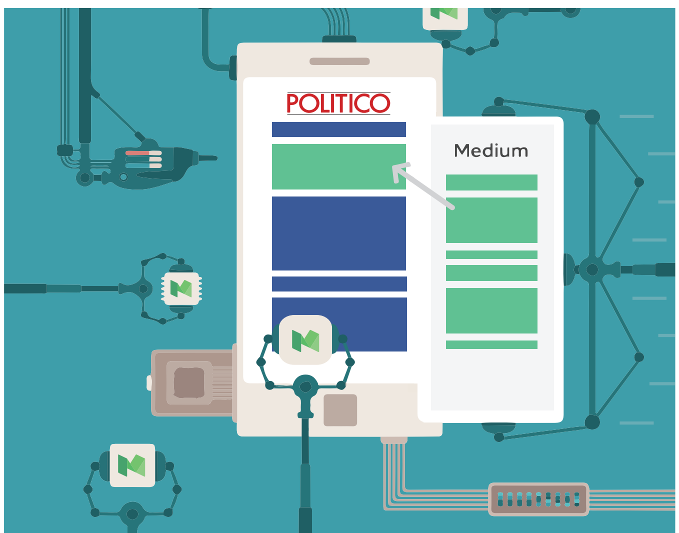
First, Medium should pursue an enterprise strategy by selling its platform as a service to leading publications within specialized areas, such as sports or business. This decentralizes content distribution and repositions the platform as a revenue generator, which holds stronger value than the content itself from network effects. Specifically, this means integrating the Medium platform and non-premium Medium content into other publications, such as Politico, which focuses on politics, and conversely integrating the publications' content into Medium. With over 1,337 newspapers and 7,293 magazines in the U.S. alone, there is a wide pool of targetable partners. Medium originally attracted 400 of them to its revenue beta program. If Medium can attract a similar number to this product at an average annual price of $4,500, Medium can cover the net deficit. As readers from these external sources join the platform and are converted to premium users, Medium can expect additional revenue increases.

Such publications lack the environment Medium has set up that drives user engagement and community. This would be beneficial to external publications as they look to bolster their digital strategy by increasing user engagement. Furthermore, it encourages stronger reader retention with Medium's reflection pieces in addition to traditional news reporting. For Medium, it would be an opportunity to increase content distribution by gaining the audience of these established platforms. Moreover, it would offer authors greater incentive to write, given the increased reach.

Second, Medium should incentivize independent author participation. By creating an author partnership program that rewards consistently top-performing authors across a variety of topics, it encourages consistent authorship and activity on the platform. Compensation can be monetary, funded using the additional revenues from the enterprise strategy. It would be paid out using a balanced scorecard of metrics including total time read, recommends, etc. For Medium, this would mean increased retention of top-performing independent writers that want to keep their own individuality. It would also mean more consistent writing on topics writers find important.

Overall, Medium's current advertisement and partnership-driven strategy is causing the media platform to diverge from its core mission of promoting better writing. While a consumer subscription product shifts the incentive system away from page views, it is not significant enough to make up for lost revenues or improve content quality. In addition, Medium lacks a dedicated strategy to incentivize and retain proven independent authors. To fix the stated issues, Medium should create a two-sided partnership program by selling the platform as a service to external publications and adding a monetization program for top independent writers. In doing so, Medium can expect a stronger growth strategy that aligns with its core mission of facilitating great online writing's rise to the top.

MEDIUM INTEGRATION



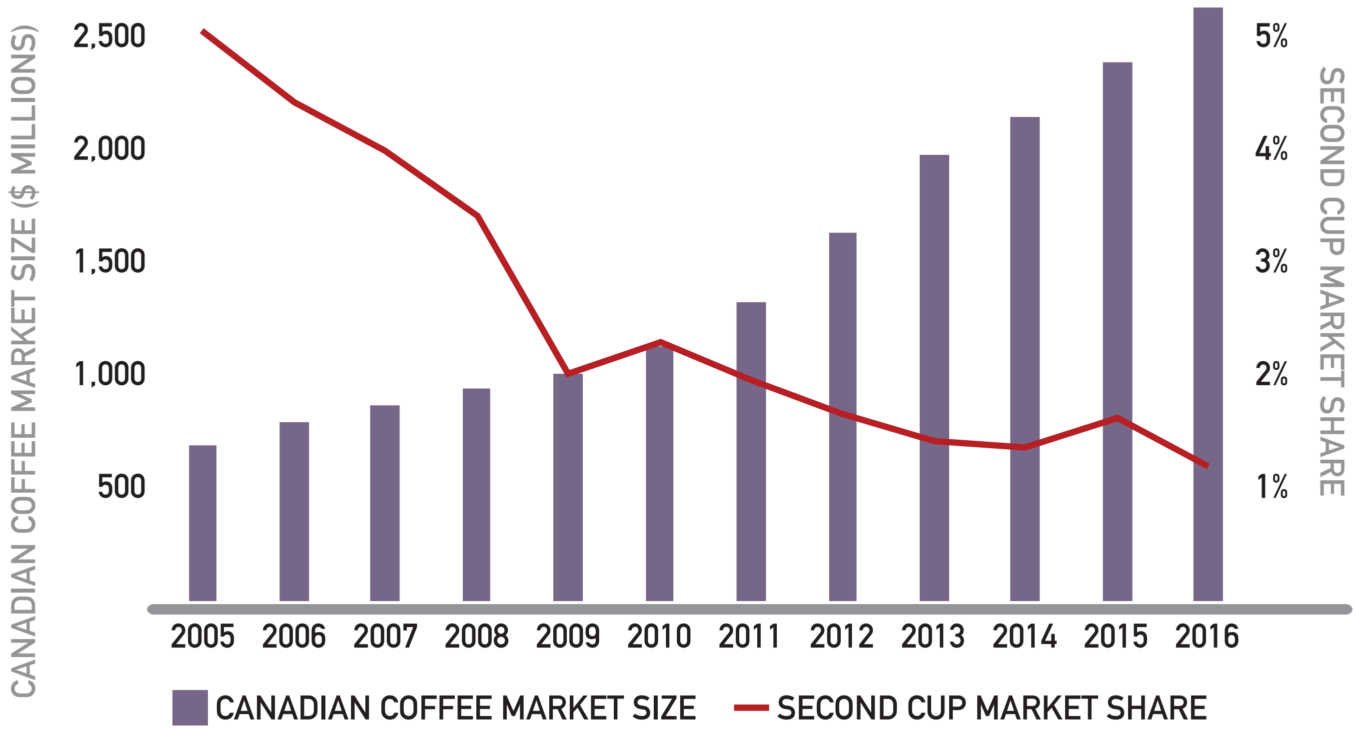
Source: IBR Analysis

SECOND CUP:
GOING BACK FOR A SECOND CUP

MTY Group should acquire the financially strapped Second Cup and re-establish the iconic coffee company's brand identity

Vishal Sharma & Raghav Srikanth

SECOND CUP'S DECLINING MARKET SHARE



Source: Second Cup Annual Report and Euromonitor

Not long ago, Second Cup Coffee Company (Second Cup) was considered the king of upscale coffee in Canada. The company has grown from its humble beginnings as a kiosk in 1975 to operating more than 300 Cafés across Canada at its peak. However, over the last 10 years, the premium coffee industry had undergone significant disruption from specialty Cafés and new international players, whose brands offered elite, specialized consumer experiences. This has gradually phased Second Cup out of the Canadian coffee market. This has significantly decreased the appeal of Second Cup's premium coffee value proposition and has hindered their growth prospects. In fact, revenues have dropped 10 per cent over the last 10 years.

The introduction of CEO Alix Box in February 2014, a former Starbucks executive, also did little to spur growth of its retail coffee business. With competitors such as Tim Hortons, Starbucks, and McDonald's all occupying unique niches within the Canadian market, the once up-scale Second Cup has seen its efforts to entice customers fall short, reflected by a stock price that has dropped 70 per cent since Box's arrival.

Limited Financial Capabilities

On January 1, 2017, the company's existing credit facility of $6-million matured and Second Cup was forced to generate funds from other sources to comply with the required bank covenants and debt obligations. Serruya Private Equity emerged as the only lender to offer Second Cup $8-million in cash to keep the business afloat at an alarmingly high interest rate of 10 per cent. Six million dollars of these funds were used to pay down the outstanding credit facility, with the remaining going towards general corporate purposes. Consequently, the company's inability to generate sufficient cash flows from operations, due to declining foot traffic in stores, has put the business at risk of insolvency. Second Cup's reliance on financial maneuvering to stay afloat shows that Second Cup's ability to grow sustainably is limited. However, these financial problems are symptoms of a deeper issue, one wherein disincentivized customers have resulted in the closing of 20 stores over the past year. Ultimately, Second Cup's lack of financial flexibility limits its ability to undergo a company-wide rebranding effort.

Franchising Difficulties

Capitalizing on Second Cup's Growth Potential

Second Cup's position is not all bad news for investors; in fact, it presents a fantastic opportunity for Second Cup to put up a 'for sale' sign on its front yard. To do this, Second Cup can leverage its primary asset: the prime locations of its under-utilized stores. These assets will present a unique value proposition to vendors who are seeking high foot traffic locations. Although Second Cup's current financial constraints prevent them from properly capitalizing upon or further investing in these stores, a larger firm with greater financial resources will be able to take advantage of these currently under-utilized stores.

In 2014, Second Cup initiated a store renovation project aimed at redeveloping its premium brand identity. During this time, the company made the decision to launch 14 Cafés that incorporated Second Cup's new prototype redesign model, including a location in downtown Toronto's entertainment district. These redesigned stores, dubbed "Cafés of the future," feature an on-tap dairy bar, murals by local artists, a central baking case, and a more dynamic seating arrangement; all in an effort to provide its consumers with an artisanal experience. The effects of this project have been overwhelmingly positive, with the downtown Toronto location turning cash flow positive. As well, same-store-sales increased by 48 per cent during the project's first year and the location became profitable. Though this trial run demonstrates a clear opportunity for growth and brand equity development, Second Cup's current financial struggles pose a hurdle. Given Second Cup's lack of access to financing, rolling out the required capital investment of $500,000 capital investment for each location to even more stores would prove difficult. With a source of capital infusion, Second Cup would be able to pursue this strategy of redefining itself within the marketplace and reclaim its position as a company that provides an exceptional coffee experience.

Furthermore, in the food retailing space, establishing partnerships is a key factor in boosting top-line growth, as it provides businesses with the ability to diversify revenue streams with minimal capital investment. In 1996, Second Cup was able to capitalize upon its premium quality and Canadian heritage in order to sign a contract with aviation giant Air Canada. Although this is a potential avenue for future growth, external companies may now be wary of partnering with Second Cup given its lack of marketability due to its diminished reputation. However, if Second Cup were to be acquired by an stable parent company, they would have the financial strength to rebrand and successfully reclaim strong partnerships in the future.

Searching for the Ideal Partner

If Second Cup sells its business to a large Canadian quick service restaurant operator, the company could gain resources such as portfolio company synergies, easy access to capital, and management experience in the food and beverage industry. Given the necessity of these benefits as a result of Second Cup's precarious financial position, MTY Food Group (MTY) should be approached as a potential acquirer.

MTY is a publicly traded franchisor of numerous quick service restaurants with 48 different brand names. The company has a history of acquiring troubled companies, and Second Cup fits the criteria given its current financial concerns.

MTY's new $325-million credit facilities provide them with the flexibility to pursue additional acquisitions. Specifically, the company has been looking to acquire companies based in Canada, with CEO Stanley Ma hinting that the company was looking to grow its presence in the coffee retail space. Supporting Ma's comments are the fact that MTY already owns Country Style, Café Van Houtte, and Café Dépôt. Therefore, Second Cup clearly fits the bill and its potential for a turnaround makes it an attractive target for MTY.

MTY Group can help Second Cup revitalize its value proposition of providing an upscale coffee experience by deploying the required capital to finance the renovation of several underperforming stores. The significant spike in

IMPORTANT SECOND CUP FIGURES

STOCK PRICE
▼ 70%
since new arrival of CEO

STORE CLOSURES
55
closed since 2010

CREDIT LINE
$8M
provided by Surreya Group

WRITEDOWN
$25.7M
of Second Cup Trademarks

Source: Google Finance, Financial Post

FINDING GOLD WITHIN SECOND CUP

Source: IBR Analysis

sales, as a result of these changes within existing stores, is a testament to the brewing potential hidden within Second Cup. From a financial standpoint, each individual remake would require approximately $500,000 in capital, and given that much of the operations will remain the same, the associated operating costs will not materially change. In addition, given that MTY's portfolio companies have several food retail locations across Canada, the company can look to establish partnerships between its existing companies that serve complementary products (i.e. Croissant Plus) to improve Second Cup's same-store sales. This process is similar to the partnership Second Cup engaged in with Air Canada.

Serruya Private Equity's relationship with Second Cup and MTY could be the darkhorse that revitalizes Second Cup's business strategy. On top of the eight million dollar credit facility it has issued to Second Cup, the Serruya family also divested one of their portfolio companies through a sale to MTY in July 2016. Second Cup can leverage Serruya's relationship with MTY in order to sell their business and provide their largest investor with an opportunity to seek financial gain from their investment.

Moving Forward

Second Cup's struggle to win over customers in the Canadian retail coffee market has resulted in the closure of over 53 stores since Q3 2014 and a $25.7-million write down of Second Cup's trademarks. The company has failed to keep up with the premium Café experience the Canadian market is currently demanding, and has faced financial difficulties. By changing the company's ownership, Second Cup can ensure that they have the required resources to move forward. In particular, an acquisition by MTY would enable Second Cup to benefit from its acquirer's vast experience in company turnarounds. With a precarious financial situation preventing the company from enacting compelling business strategy, Second Cup's future is clear: if they do not act fast, they may find themselves serving their last cup.

SECOND CUP STORE LAYOUT BEFORE VS. AFTER

Source: IBR Analysis

PHILIP MORRIS INTERNATIONAL: **SPARKING A SMOKELESS FUTURE**

Philip Morris can change smoking culture by creating shared smokeless experiences

Vineet Gupta & Nishtha Sharma

With 15 per cent of global market share and approximately $74-billion USD in 2015 revenues, Philip Morris International (PMI) is the world's leading tobacco company with prominent brands like Marlboro and L&M. In response to government regulation, public backlash, and decreasing global demand, PMI announced a radical strategic shift in late 2016 to gradually phase out all traditional cigarettes using iQOS, its smoke-free tobacco technology. While this strategy has been successfully implemented in markets where smoking culture is generally condemned, PMI has yet to determine how to successfully execute it in developing regions where cigarettes are still dominant.

An impending merger between British American Tobacco (BAT) and R.J. Reynolds—PMI's largest rivals—will replace the company as the leading international tobacco company by the end of the year. One of BAT's goals for the merger is to "deliver a world-class pipeline of vapour and tobacco heating products...globally." PMI must proactively consider a new strategy in entering these lucrative markets with its own iQOS product, or risk permanently losing its market position within a competitive and brand-loyal industry.

An Industry Up in Smoke

Tobacco is a highly regulated industry: since the implementation of controls like the Framework Convention on Tobacco Control (FCTC), the prevalence of smokers over the age of 15 has dropped to 22 per cent globally, and is projected to fall to 19 per cent by 2025. Although tobacco companies in many low and middle-income countries are still highly profitable, the sustainability of PMI's cigarette sales is being put into jeopardy.

Currently, emerging markets in the Asia-Pacific region make up 65 per cent of the global smoking market. Nonetheless, an expanding middle class, increased education levels, and growing health consciousness among consumers are shifting this segment away from traditional smoking norms. PMI must seek alternative revenue streams by being proactive in offering smoking alternatives that are attractive to consumers while minimizing government and public backlash.

PMI should pilot its iQOS expansion into emerging regions through the Indonesian market, which represents 13 per cent of PMI's total unit sales and is one of the largest regions the company serves. Predicted to be the world's largest cigarette market by 2025, Indonesia is a tobacco "rogue state" where the government has yet to ratify the FCTC. With a significant Muslim population in Indonesia, social smoking often replaces the function of social drinking apparent in most Western countries. Consistent demand by consumers, coupled with less stringent regulations in this space, will allow for increased chances of success in introducing the iQOS in this market. PMI's potential success in Indonesia will also provide validation for future implementation of the company's strategy within similar markets. This will not only shield the company from the threat of a combined BAT-Reynolds company, but also against the risks of decreasing cigarette sales in developed economies.

Turning up the Heat with iQOS

E-cigarettes have failed in many markets due to their use of liquid nicotine solutions rather than the authentic tobacco users are familiar with. The iQOS uses tobacco "HeatSticks" similar to cigarettes, which are heated to release nicotine, resembling a traditional smoking experience without burning the tobacco. This allows the device to release vapour instead of smoke, which prevents the first and second-hand inhalation of harmful chemicals associated with smoking a traditional cigarette. The perceived health advantages of the device have contributed to the iQOS' success in over 20 markets. For example, in Japan, the iQOS achieved over seven per cent market share within the first year. Users claim that phenomenologically, the iQOS experience is almost identical to traditional smoking, less the lung discomfort and odours associated with regular cigarettes. The HeatStick component of the technology is also sold at comparable prices to traditional cigarettes due to the similar production costs.

Regardless of these benefits, at a price of $80 per device, the initial investment of the iQOS is a large barrier to adoption for price-sensitive consumers in many emerging markets. Considering that the average price of a standard 20-pack of cigarettes is only $1.50 in Indonesia and lighters are widely accessible, the cost of the iQOS is not justifiable to the average smoker. Additionally, the health-focused value proposition of the iQOS that appeals to smokers in developed markets is less valued by the Indonesian population, where smoking permeates social and cultural norms nationwide.

Ultimately, despite its ability to provide an authentic smoking experience, the current price of the iQOS is financially inaccessible to the individual smoker within countries like Indonesia. In order for widespread consumer adoption to occur, PMI must consider a separate strategy from the one deployed in developed markets to capture smokers within emerging markets.

Clearing the Air in Indonesia

To encourage widescale iQOS adoption, PMI should establish a different distribution channel of business-to-business customers. As a reusable device, the iQOS

SMOKING PREVALENCE IN INDONESIA

Source: Jakpat

has significant sharing potential between users. This market-entry business model would consist of selling iQOS devices to roadside stalls, mall kiosks, workplace cafeterias, and other high-traffic areas where people typically purchase and smoke cigarettes. Consumers would be able to purchase HeatSticks in packs from these retailers at comparable prices to traditional cigarettes, and use the iQOS device to consume the HeatStick at the point of purchase.

PMI should adopt a phased strategy whereby consumers can still smoke traditional cigarettes at home, but will be increasingly exposed to iQOS devices within social settings.

Smoking is ingrained into many Indonesians' daily lives: 84 per cent of Indonesians purchase cigarettes from the nearest retail location, establishing convenience as a major purchasing driver for cigarettes. As a result, it is vital for PMI to establish a widespread distribution network for its iQOS product.

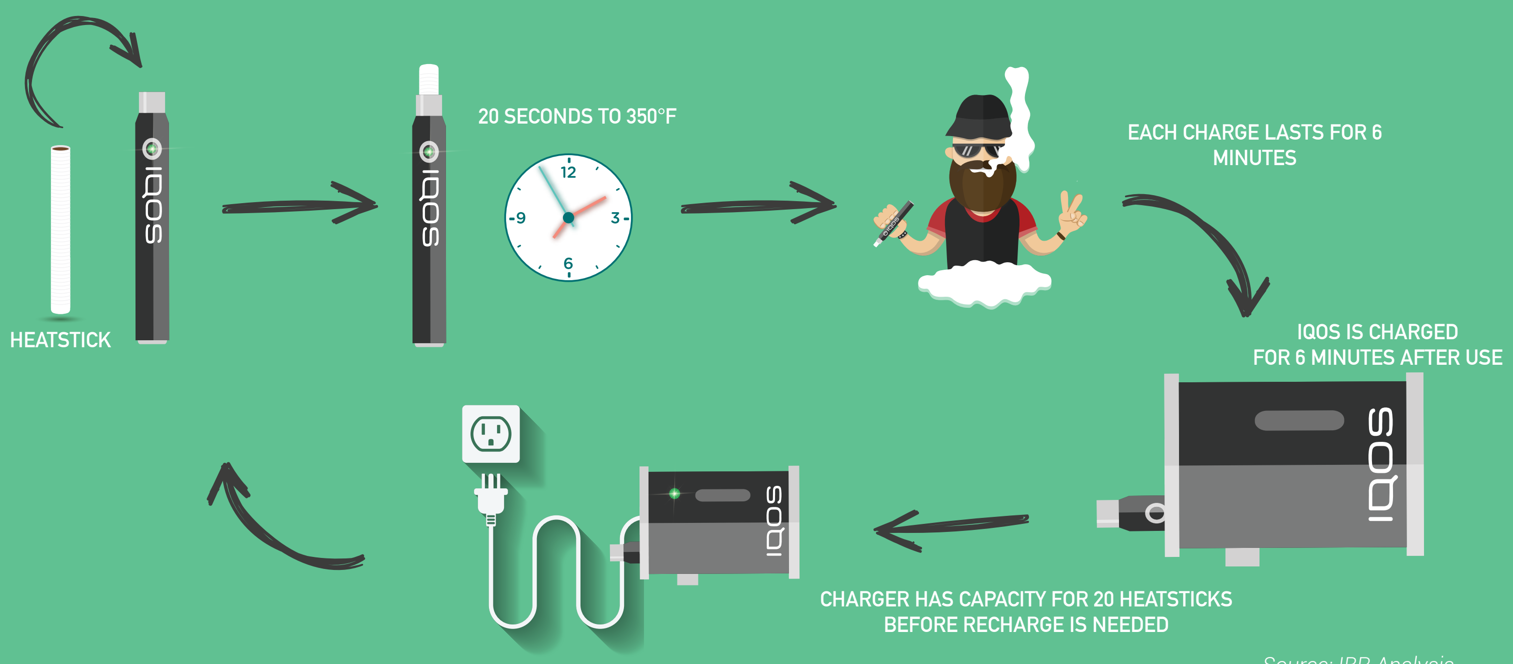
There should be two components to PMI's distribution strategy: the sale of HeatSticks and the iQOS device itself. Currently, the distribution network for cigarettes is fragmented and established widely across ubiquitous roadside stalls and grocery stores in Indonesia, making smoking an easily accessible activity. Forty-nine per cent of Indonesian smokers smoke whenever they can, reinforcing the fact that HeatSticks should be sold at the same convenient locations. This will allow PMI to leverage its existing Indonesian distribution network to drive mass adoption. Currently, these independent retail locations primarily purchase cigarette products from larger grocery chains, which PMI already has strong supplier relationships with; this increases the feasibility of introducing the iQOS on a local and national scale.

PMI's second distribution imperative is to ensure that the iQOS devices themselves are widely accessible in areas where consumers typically smoke. In addition to locations where traditional cigarettes are retailed, the iQOS should also be to sold to restaurants, bars, and workplaces where smoking is still widely prevalent. Many public health groups advocate for smoking bans in these public areas due to the environmental impact of second-hand smoke, and the iQOS offers a smoke and odour-free incentive for institutions to invest in devices to share in designated smoking areas. Being the first company to establish enough iQOS devices to meet demand in these locations will render it difficult for competitors to push their own reduced-risk products in the future, setting PMI up for a monopoly over this market.

Igniting Government Interest

The tobacco industry plays a significant role in the Indonesian economy, employing approximately 4.5-million people nationally. While traditional cigarettes remain unregulated, this fact has led to the ban of imports and sales of e-cigarettes, which do not contain any tobacco. Since the iQOS runs on HeatSticks that contain a similar

IQOS PROCESS DIAGRAM



Source: IBR Analysis

amount of tobacco as a cigarette, the product is uniquely positioned to be a potential cigarette substitute that does not disrupt the country's established tobacco industry.

Furthermore, the iQOS' reduced-risk status drives significant value for the Indonesian government. In 2014, the government introduced a compulsory national health insurance programme (JKN) to provide comprehensive medical access to all citizens. As an alternative that is 90 to 95 per cent less toxic than cigarettes and does not generate second-hand smoke, consumer adoption can provide significant savings on tobacco-related healthcare costs and loss of productivity. Revenues from excise taxes on cigarettes make up between 10 to 12 per cent of the state budget, but with the potential healthcare savings that the iQOS offers, it will be feasible for PMI to lobby for a decreased tax rate on its products.

Excise taxes currently comprise 45 per cent of the retail price of cigarettes, resulting in $10.3-billion in tax revenue for the government in 2016. After factoring in lost excise tax revenue from cannibalization of cigarette sales—even assuming a zero per cent tax rate on HeatSticks—the government can realize annual net savings of at least $14-million by the fifth year of introduction. On this basis, it is reasonable that HeatSticks will be able to achieve at least an excise tax rate reduction to 35 per cent of retail price.

Warming up the Retail Space

For PMI's strategy to succeed, it is crucial to create buy-in from retailers. Push advertising from retailers at the point of sale coupled with the fact that HeatSticks are available in the same brands consumers are familiar and comfortable with will make an uptake in consumer adoption much more likely. Through passing on all excise tax savings on the sale of HeatSticks, PMI is able to create a higher-margin product that is much more attractive to sell.

If a roadside stall is able to sell four packs of HeatSticks instead of traditional cigarettes over the course of a week, representing at most five per cent of total units sold, it will be able to break even on an investment in two iQOS devices for on-site use at $80 each. These devices will be necessary to allow retailers to demonstrate iQOS' experiential value proposition and enable customers to consume the product upon purchase. iQOS devices will be connected to the kiosk via a cord—similar to lighters—to prevent theft of the devices, while encouraging additional purchases resulting from additional time spent at the kiosk.

This is an easily achievable conversion benchmark that provides ample additional profit for retailers, of which a portion could be passed on to end consumers at their discretion to further encourage acceptance. Given that consumers are price-sensitive and currently spend five to seven per cent of their income on tobacco products, a cost leader strategy would be highly effective in driving adoption.

Blazing Ahead

To encourage consumer adoption of the iQOS, it is paramount for PMI to establish the device as one that provides a genuine, improved smoking experience within familiar social contexts. Tobacco advertising in Indonesia has traditionally been aggressive and widespread. Crafting iQOS as a novel, higher-quality alternative to cigarettes through advertising and retail promotion will be critical to driving adoption in a redefined market that currently does not have any direct competitors. This distribution model will allow PMI to initially enter the market through pre-established channels, and gradually increasing exposure and demand for the iQOS will eventually translate to end consumers demanding their own devices. This will place PMI in a strong position to sell iQOS via its traditional business model—one that the company has perfected many times in other markets—as a complement to this new channel in the future. Currently, cigarette margins in Indonesia are relatively lower than margins in other developing regions. Should PMI's new strategy succeed in Indonesia's regulation-light environment, PMI can apply similar approaches in other emerging markets where HeatStick margins are even more favourable.

> *"PMI must seek alternative revenue streams by being proactive in offering smoking alternatives that are attractive to consumers while minimizing government and public backlash"*

By gaining nationwide adoption of the iQOS, PMI can prove its ability to establish its innovative, reduced-risk device as a staple part of Indonesian culture. This creates a sustainable opportunity for the company to become a pioneer of reduced-risk technologies in emerging economies, and sets PMI up to become a global leader for a smoke-free world.

GILEAD: **CULTIVATING THE PIPELINE**

In order to restore investor confidence and hedge legacy market downturns, Gilead needs to diversify into other channels of sustainable revenue generation to minimize volatility

Jason Cheung & Dennis Zhan

Symptoms

Just a couple years ago, Gilead Sciences was a different company than it currently is, but not for the better. Gilead specializes in the production of a high-performance drug that counteracts the infectious hepatitis C (HCV) disease as well as biologically similar ailments. While still one of the largest biopharmaceutical companies in the world that discovers, develops and commercializes therapeutics, Gilead faces structural challenges in the segments it operates in, specifically in HCV. Despite their patent lasting until 2028, revenue and earnings are facing compression from HCV dependence amidst declining HCV market growth and slowing demand. As a reflection, Gilead has experienced a stark stock price decline that seems unlikely to cease, trading down to $73share as of February 2, 2017 from its high of $122 in June 2015. In order to restore investors faith and tackle its core business problems, Gilead needs to diversify into other channels of sustainable revenue generation to minimize revenue volatility.

Core Business Problems

Historically, the sale of HCV products has accounted for roughly 56 per cent of Gilead's revenue since 2014. Looking forward, investors question Gilead's reliance on

GW AT A GLANCE

Source: IBR Analysis

HCV treatment demand as supply is becoming saturated; AbbVie, Bristol-Myers Squibb, Johnson & Johnson, and Merck have all developed substitute offerings in this segment. The transition of market dynamics induced pricing reductions; Gilead currently sells HCV products at significant discounts to their list prices.

In its latest quarterly report, Gilead estimates 2017 full-year revenue to be between $22.5-billion to $24.5-billion. A figure well short of analyst estimates of $28-billion, this is an artefact of decreased domestic sales and international expansion shortcomings. Additionally, Gilead has less in their developmental pipeline, the main predictor of future revenues, in comparison to competitors such as GlaxoSmithKline and Pfizer. The strategic implication for Gilead is that it needs to increase drug discovery to remain competitive in the long run. However, internal research and development (R&D) are not a strength of Gilead nor large-cap pharmaceuticals in general. Studies indicate that smaller biotech groups produced an average 17 per cent return on R&D investment over the past three years, compared with five per cent for twelve big groups. Faced with weak returns on development ventures, Gilead has favoured returning cash to investors through large dividend payouts and stock buybacks.

Core Competency

The strongest bull argument for Gilead lies in its ability to generate substantial cash. Gilead's core competency is producing drugs with higher margins than their competitors. In the last four years, Gilead has grown their gross margin from 75 percent to 88 per cent and their operating margin from 41 per cent to 68 per cent. Gilead is sitting on a cash balance of $12-billion and has produced a trailing operating cash flow of $15.3-billion. However, the longevity of healthcare companies depends on identifying alternative growth ventures. Consider the life cycle of drug products from the perspective of a developer. Upon approval from regulatory bodies, supply management controls effectively create a monopoly during an exclusive rights period before the segment is opened up to generics. Portfolio turnover is a common occurrence, signalling that cash generation efficacy must be coupled with constant innovation and efficient resource allocation.

Historically, Gilead has pushed their performance to new heights with mergers and acquisitions (M&A). Gilead executed a substantial biotech value acquisition, the purchase of Pharmasset in 2011 at an 89 per cent premium for $11-billion. After an exhaustive analysis of Pharmasset's drug pipeline, Gilead identified two potential crown jewels: Harvoni and Sovaldi. Today, these two drugs form the foundation of Gilead's HCV franchise that has propped up their aggregate revenue and added more than $100-billion to their market capitalization. Other notable transactions include the purchases of Myogen and CV Therapeutics for $2.5-billion and $1.4-billion, respectively. Over the past five years, Gilead's proven success in acquisition integration is reflected by average return on invested capital (ROIC) of 35.7 per cent. For context, Pfizer's average ROIC was 11.2 per cent over the same time frame.

New Venture Attractiveness

An emerging market that Gilead has yet to establish a footprint in is medical marijuana (MMJ). Projecting 17.1 per cent compound annual growth, analysts predict that MMJ will represent a $55.8-billion industry by 2025. A multitude of positive regulatory developments in 2016, including 29 U.S. states legalizing the intake of marijuana for medical uses, suggest a favourable industry outlook. The Canadian market is also attractive as MMJ use is already fully legalized; it serves as the North American hub for MMJ production, regulation, and research. Lastly, a wave of progressive policies toward MMJ is sweeping across Europe. Germany is the most recent country to legalize MMJ and a plethora of European countries are looking to follow suit.

Effective commercialization of a therapeutic treatment presents pharmaceutical companies with recurring revenue opportunities. Patients require a consistent supply of MMJ in order to effectively manage their symptoms of chronic diseases such as arthritis, epilepsy, and post-traumatic stress disorder. Therefore, the MMJ market becomes a more attractive investment for Gilead as opposed to drugs that solely treat acute diseases such as HCV. While there has been an influx of producers looking to capitalize on market trends, pharmaceutical companies have been slow to react. Only 26 per cent of current research in the industry is being conducted by biotechnology companies and a minuscule two per cent by global pharmaceuticals. Currently, only two cannabinoid products, Cesamet and Marinol, have been approved by the Food and Drug Administration (FDA) in the North American market. The recent changes in awareness and regulation have primed the MMJ industry for massive potential growth. Yet, the sluggish response from pharmaceuticals leaves room for Gilead to be the first large-cap player to gain patents and reap the rewards. To properly tap into the MMJ sector and address future revenue concerns, Gilead should acquire specialized MMJ pharmaceuticals.

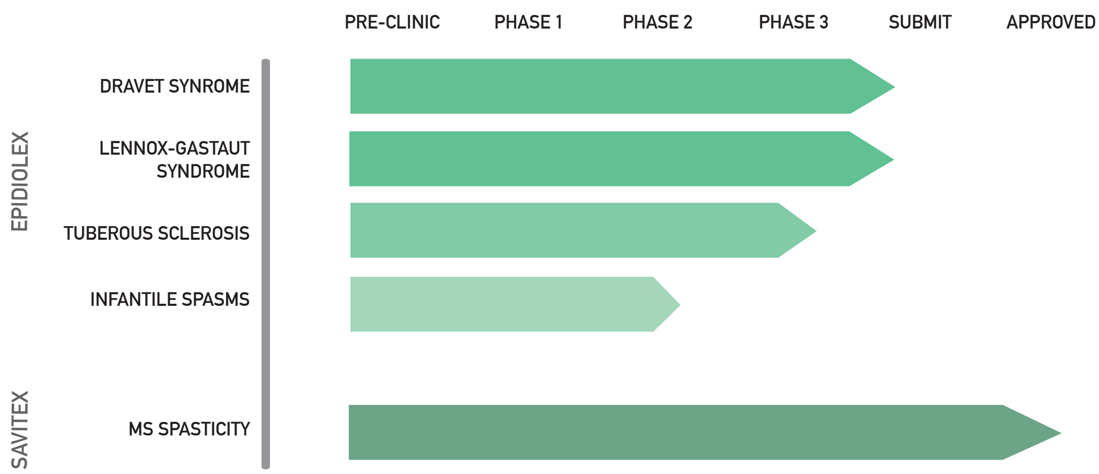
Spotlighting GW Pharmaceuticals

Based out of London, United Kingdom (UK), GW Pharmaceuticals is the leading cannabinoid biotechnology company in the world with respect to size and research pipeline. Their flagship product is Sativex, a cannabis-based mouth spray that has been approved for multiple sclerosis treatment in 28 countries globally. GW also has an extensive research pipeline, with their lead candidate Epidiolex in late stage clinical trials with the FDA and European Medicines Agency for Dravet Syndrome and Lennox-Gastaut Syndrome. Both agencies have granted Epidiolex an orphan drug designation that provides a seven-year exclusivity period in the United States (US) and potential tax credits for research conducted. Additionally, Epidiolex has been granted fast track approval by the FDA for the treatment of Dravet Syndrome, accelerating its route to commercialization.

Even though GW has successfully commercialized Sativex, the R&D costs associated with their pipeline greatly outweigh revenues, resulting in a net loss of $82.2-million in 2016. Cash flow from operating activities have been decreasing rapidly from a $19.9-million outflow in 2014 to a $155-million outflow in 2016. Consequently, GW has been financing operations through multiple secondary equity issuances, diluting shareholder value. As GW continues to grow and incur incremental commercialization costs, a more sustainable method of financing would be welcome. A takeover would provide much-needed cash flow and liquidity for management.

GW's leadership should also be receptive to a letter of purchasing intent. In terms of timing, a letter of intent is usually submitted after regulatory approval of pipeline drugs. GW would be forfeiting significant upside if it engages in a sale prior to a more concrete scope of its developmental properties. Hence, it is likely that Gilead would be required to pay a well-above average premium in order to entice management and equity holders of GW. Over the last three years, the average premium paid for U.S. biopharmaceutical companies in a public takeover was 44.3 per cent. Even if Gilead was forced to pay an aggressive premium of 100 per cent, the transaction would still make sense from a perceptions standpoint as the acquisition would be a strong indicator that Gilead is conscious of its core business problems. However,

PHARMACEUTICAL DEVELOPMENT PIPELINE



Source: GW Pharmaceuticals

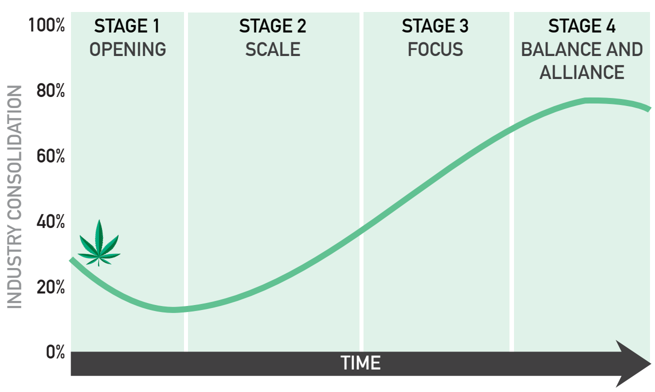
this acquisition is much more than optics; it provides an entrance into a rapidly growing market that compliments Gilead's existing operations and strengths.

Investment Proposal

From the perspective of Gilead, an acquisition of GW would be a strong prospect from a capabilities standpoint. Gilead has demonstrated the ability to commercialize drugs effectively whether through organic development or an out-licensing agreement. Gilead's strong performance in the operational and marketing aspects of the value chain have culminated into strong margins management and industry-leading distribution performance domestically. To get a sense of their superior margins, Gilead generates a 45.1 per cent net profit margin whereas Pfizer trails drastically at 13.7 per cent. According to Bloomberg, Gilead's HCV franchise became the top-selling new product in the history of the drug industry. These artefacts support the assertion that Gilead lacks only ideation in their business model. Gilead has yet to establish a strong franchise for neurological diseases. Additionally, Gilead's $12-billion offshore cash balloon is in danger of being reduced by U.S. corporate tax rates. Incorporated in the UK, GW would provide an ideal opportunity for Gilead to avoid repatriation, expand their European presence, and engage a growing market. All in all, the acquisition of GW will engage a proprietary treatment methodology that has substantial traction and balances their existing portfolio, a requisite in the eyes of investors.

Additionally, to continue future advancement in the MMJ space, Gilead should also seek to acquire clinical stage entities such as Zynerba Pharmaceuticals. A specialty MMJ company, Zynerba is still in the experimental stage with their pipeline. The flagship product of Zynerba is ZYN002, a synthetic cannabidiol gel that is applied through transdermal delivery for the treatment of epilepsy, osteoarthritis and Fragile X syndrome. Under development, ZYN002 is in Phase II of the FDA process and has undergone safety and tolerability reviews at the American Epilepsy Society. By acquiring GW, Gilead adopts a guaranteed product to capitalize on the MMJ industry, whereas Zynerba allows Gilead to continually grow their pipeline and gain long-term sustainability. Pharmaceutical roll-ups are a part of the consolidation process, which occur as new market sectors mature and offer R&D cost synergies.

INDUSTRY CONSOLIDATION CURVE



Source: Harvard Business Review

In the case of Gilead, investors have discounted the past success of HCV sales as an aberration and not an indicator of future dominance. It is hard to find fault in that position as the decline in product sales is occurring at an alarming rate. During the latest quarter, year-over-year sales of Harvoni more than halved to $1.6-billion, while Sovaldi sales plunged from $1.6-billion to half a billion dollars. Finding future growth opportunities is paramount for Gilead. Since the main driver for growth in the pharmaceuticals industry is M&A, it makes sense for Gilead to engage GW even if the terms are not ideal. Gilead is unlikely to deliver substantial incremental increases to its bottom line through cost-cutting. Furthermore, international drug distribution efforts are not a feasible contingency. Other potential industry obstacles such as downward pricing pressures, patent cliffs, and the threat of generics demand a call to action. Complacency would be a catastrophic position for Gilead. Consider, any move that appears to be put in good faith towards delivering future growth would be looked upon favourably by retail investors; the subsequent reversal of stock price performance would outweigh the one-time investment made by Gilead by many magnitudes.

As evidenced by more than 69 per cent of Gilead's acquisitions closing before 2013, the company needs to prioritize an acquisitive strategy in non-traditional medicines going forward. Innovative companies target start-ups and other private entities to take advantage of promising breakthrough medicines which could significantly improve the acquirer's attractiveness. Gilead must emphasize acquiring ideas with a strategic value that may not translate into immediate financial results. Since most industries progress predictably through a clear consolidation life cycle, Gilead should focus on executing the roll-up of middle market MMJ firms. Thankfully, the torrid times that have engulfed Gilead are pronounced enough to induce a cultural shift.

CANADIAN DAIRY FARMERS: **NOT CRYING OVER SPILT MILK**

Erosion of the Canadian dairy supply management system encourages the exploration of beef production as an ancillary revenue stream

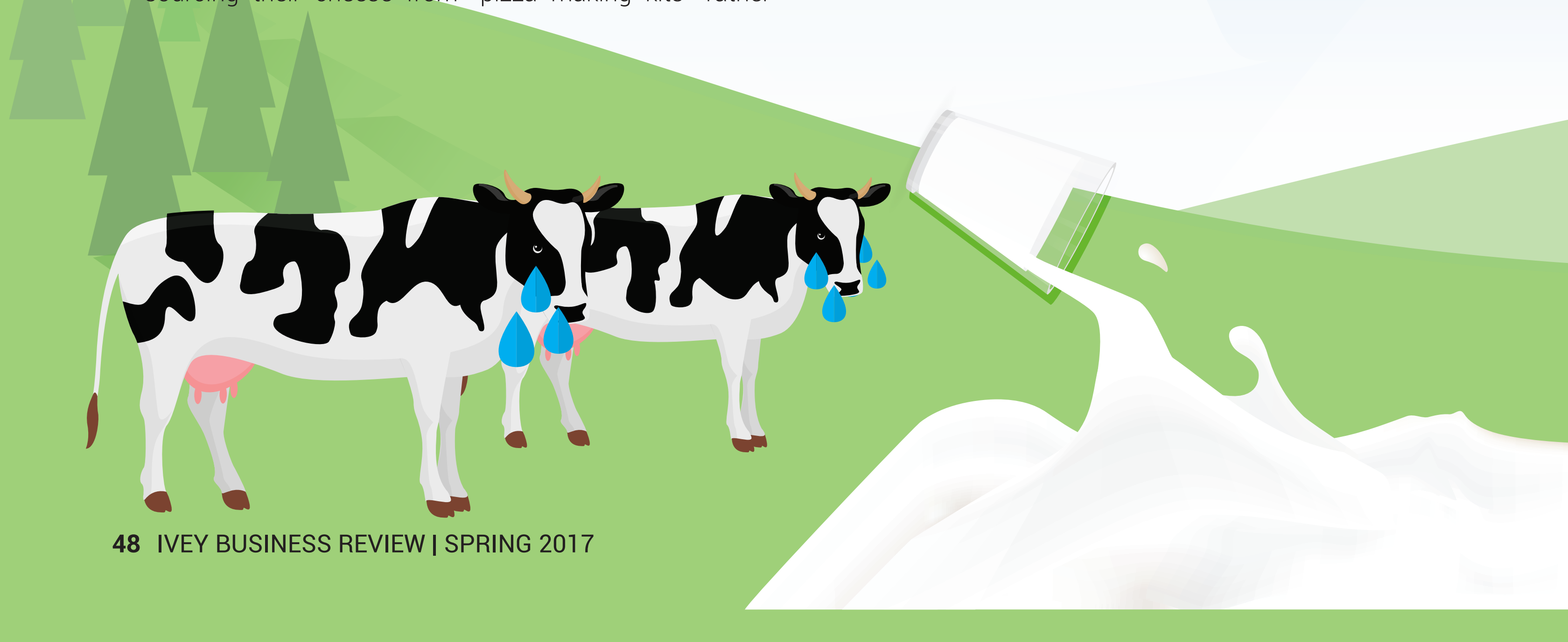
Quintin Tack

The North American Free Trade Agreement (NAFTA) showdown between Canada and the United States is a looming item on Justin Trudeau's agenda in 2017. The interests of the American exporters against protected sectors like dairy, telecommunications, airlines, and banks will be major talking points. In particular, criticism of Canada's dairy supply management system will spur plenty of debate. This regulatory system requires all dairy farmers to acquire fixed production quotas and subsequently, sell their raw milk through the provincial milk marketing board. Though initially established to guarantee minimum pricing on milk products, the milk marketing board has since created a monopoly on raw Canadian dairy products as all dairy processors are required to adhere to prices set by the marketing board.

Canadian dairy supply management has been vulnerable to various loopholes, which enable innovators and third parties to benefit at the expense of producers. Until 2013, pizza chains circumvented protectionist tariffs by sourcing their cheese from "pizza making kits" rather than traditional cheese suppliers. Tariff aversion has gone as far as giving rise to a black market for cheese that can net $1,000 per truck load from the U.S. to Canada. Without any meaningful change, the dairy industry is positioned to continue hemorrhaging value. Therefore, Canadian dairy farmers should diversify risk by developing ancillary revenue streams in the form of beef production. Aside from economies of scope between dairy farming and cattle ranching, there are several positive catalysts such as improved consumer perceptions and regulatory environment.

Disappearing Import Controls

Maintaining artificially high milk prices requires the Canadian government to place tariffs on incoming dairy products. In this manner, less expensive imported milk is marked up from 200 to 300 per cent to limit pricing shock in the Canadian milk market. The effectiveness of these import controls is being increasingly called into question by Canadian trade partners. In response, Canada



DAIRY INDUSTRY VALUE CHAIN

Produce raw milk to meet production quotas.

Negotiate with processors on behalf of farmers to establish prices.

Inspect farms to ensure food safety and animal welfare.

Turn raw milk into processed dairy products ready for consumers.

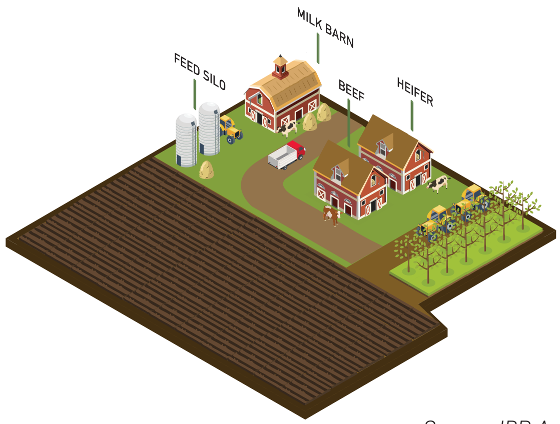
Source: IBR Analysis

has agreed on free trade amendments that reduce these tariffs. In particular, the recently signed Canadian-European Union Comprehensive Economic and Trade Agreement (CETA) allows the EU to export an additional 18,500 tonnes of cheese to Canada tariff-free, a figure that represents 4.3 per cent of the Canadian market. The net impact to the Canadian dairy farming industry will be a revenue reduction of $116-million, or two per cent of the $6-billion market. The Trans-Pacific Partnership (TPP) contains similar provisions; should it be ratified, the agreement will result in a similar revenue reduction for Canadian milk farmers.

President Donald Trump's administration would to like change America's previously non-existent role in the Canadian dairy market, a move that will further compress dairy farmers' margins. At present, the Canadian dairy industry is excluded from the NAFTA, meaning that American dairy farmers have limited access to Canada's captive dairy market. Should market access be granted, American farmers will pursue Canada vigorously as the American supply outpaces the domestic demand. In the first eight months of 2016, American farmers dumped 1.6 million hectolitres of milk due to lack of demand, enough to supply two per cent of Canada's production.

Granting American farmers access to the Canadian market will undermine the supply management system and cause downward price pressure. American dairy farmers have 16 per cent lower costs of production on average compared to Canadian farmers. Aside from concerns over NAFTA, recent technological developments in the dairy processing industry provide an example of downward price pressure resulting from American market access. A particular example to scrutinize is diafiltered milk, a new milk "ingredient" containing 85 per cent protein. As a milk "ingredient", the tariffs which apply to other imported dairy products do not apply to diafiltered milk. Diafiltered milk is imported into Canada and used to make cheese. Reducing the necessary amount of milk required for production will cost Canadian farmers $220-million in lost revenue per year. To combat the entrance of diafiltered milk and maintain market share, the Ontario Milk Marketing Board (OMMB) has created a new class of milk products. Instead of using their traditional cost plus pricing mechanisms, the OMMB has competitively priced this milk against the cheaper American diafiltered milk. Overall, this reduces the average price and profit of products sold by Canadian dairy farmers. Whether market access results from loopholes created by technological developments or renegotiations of NAFTA, Canadian farmers who have higher overall costs, cannot win a race to condense margins.

DAIRY INDUSTRY VALUE CHAIN



Source: IBR Analysis

An Environment of Complacency

Since the introduction of supply management in the early 1970's, dairy farming has been one of agriculture's most attractive sectors. Dairy farms have agriculture's lowest operating expense ratio on a cash basis at 0.73, in comparison to overall agriculture at 0.83. In addition, the industry has experienced steady revenue growth of two and a half per cent from 2008 to 2015, culminating with all-time high production in 2015 of 81.8 million hectolitres. In addition to being responsible for this profitability, many believe that rigid supply management by the federal government has resulted in complacency amongst dairy farmers. To outsiders, it appears that the industry has spent more energy trying to preserve the system rather than preparing for its inevitable erosion.

Limited Opportunities for Margin Increases

Dairy farmers could increase profitability through expansion of their operations. Taking advantage of economies of scale, the largest tertile of dairy farms have 12 per cent lower production costs compared to dairy farms in the smallest tertile. These economies of scale predominantly arise from labour savings. However, expansion is difficult to implement within the supply management system. In order to expand, producers must acquire increased production quotas, though these are in short supply and can be prohibitively expensive. In fact, the most recent Ontario quota exchange received bids for 10,465 units of quota; however, only 369 units were available for sale. This means buyers had a success rate of less than four per cent. Moreover, the quota price was also set at $24,000 per animal.

Continued import control erosion and its associated decrease in dairy farm profitability will eventually soften the quota market, meaning farmers expanding now may stand to lose a sizable amount of quota investments. On top of this, even the largest Canadian producers have 13 per cent higher costs than the average American producer, suggesting this solution will not adequately protect farmers from cheaper American imports.

At present, the vast majority of Canadian dairy farmers sell a commodity product and accept the price the milk marketing board offers them. Also, dairy farmers store unprocessed milk in its raw form until it is shipped to large processing facilities. Under a marketing board pilot project, some dairy farmers have set up micro-dairies to process their own raw milk and create finished dairy products, including two per cent milk and cream which can be sold to consumers. Although these farmers have been successful in creating a distinct product, only a small market niche of consumers are willing to pay higher prices for a traceable local product. On the whole, milk will remain a commodity product from the farmer's perspective and in the grocery store. As a result, opportunities for forward integration and its associated differentiation will remain limited for dairy farmers.

The Beefy Solution

Instead of expanding or attempting product differentiation, dairy farmers should develop ancillary revenue streams. In light of the predicted market trajectory, this strategy will allow farmers to maintain profit margins as the dairy industry adapts to decreased import controls. Dairy farmers only need to look at their operation and some of its by-products to find the solution: beef production.

Dairy farmers continually breed their cows in order to maintain a supply of milk production. A typical cow gives birth to its first calf at 2 to 3 years of age. Then, the cow is continually bred, giving birth approximately every 14 months. As with humans, 50 per cent of the offspring are male and 50 per cent female. Typically, dairy farmers keep and raise their female offspring in order to replenish and grow their herd. The male calves, on the other hand, are typically sold off the farm at birth to veal and beef producers.

Instead of selling the animals, dairy farmers can increase revenue and profits by keeping male calves and raising them to maturity. The average dairy farm, with a milking herd of 85 cows, produces approximately 37 bull calves on an annual basis. Adding an ancillary beef component to their existing dairy operation by raising bull calves will allow dairy farmers to take advantage of economies of scope between the two industries.

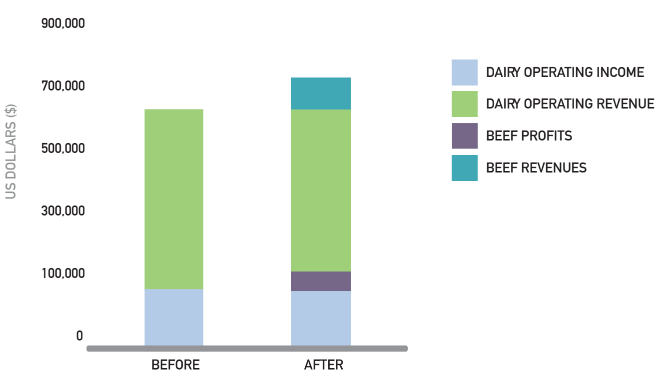
Economies of Scope Between Industries

Expanding into the business of raising beef cattle would only require a small capital investment from dairy farmers because they already possess most of the required machinery and infrastructure. For example, dairy farmers already have all the equipment required in a beef operation such as tractors, feed mixers, and manure spreaders. Capital expenditure is limited to the required barn and its associated fixtures including gates, feeders, and managers. For the average dairy farmer with a milking herd of 85 cows and 37 bull calves a year, the capital expenditure would represent an investment of approximately $25,000. Based on current market prices for feed and cattle, this project would net approximately $11,900 annually. In comparison to the average Canadian dairy farms operating income of $70,000 to 80,000, this plan represents a 15 per cent increase in income. It compares favourably to the dairy capacity expansion alternative discussed earlier. For every $24,000 investment in an additional unit of quota, operating income only increases by $1,700.

The expansion will also allow dairy farmers to leverage their existing skillsets and human capital to diversify their businesses. Farmer expertise includes knowledge about keeping cattle healthy, treating them for various ailments, and developing food ration programs that will result in strong milk production. Many of these skills would be transferable to beef production. Also, looking after additional beef operations would require minimal operational changes on a dairy farm. Currently, dairy farmers split their time between looking after their milking herd and heifers, females being raised to become milking cows. The milking herd requires intensive care with frequent feeding and milking at least twice daily. On the other hand, heifers in milk production have similar requirements to calves in beef operations, namely feeding and barn cleaning. In this manner, caring for the beef operation could be easily added to the existing heifer routines.

Dairy farmers should also consider the merits of expanding this ancillary beef operation beyond raising just their own production of bull calves. Purchasing bull calves from neighbouring dairy farms would allow the beef operation to grow considerably, thereby generating additional income with minimal investment and operational changes.

PROFIT INCREASE FROM BEEF PRODUCTION



Source: IBR Analysis

The Attractiveness of the Beef Industry

The Canadian beef industry relies and thrives on free trade. In fact, 45 per cent of Canadian beef is exported. Free trade deals, such as CETA and TPP, have the ability to increase revenues and beef production in Canada. CETA, for example, has provisions for $600-million in tariff-free Canadian beef exports to the EU. In addition, Canada has recently won a longstanding World Trade Organization (WTO) proceeding against the U.S. over Country of Origin Labelling (COOL). This American regulation required U.S. processors to segregate Canadian cattle from American cattle within abattoirs. This segregation caused Canadian cattle to sell at depressed prices, costing Canadian producers one billion dollars annually in lost revenue. With these regulations gone, Canadian beef producers will see an increased demand and fair prices for their cattle in American markets. Coupled with recently repealed export bans to Asian countries, a growing market for Canadian beef exports has been established. Partly due to these reasons, the Canadian beef industry is enjoying some of its highest prices on record, with the 2016 average price at $141.9 per hundredweight. In comparison, the 10-year average is $108.7 per hundredweight. Forecasts predict price increases in 2017 and 2018 of 0.3 and 2.85 per cent respectively. Dairy farmers are uniquely positioned to take advantage of a stronger beef industry and counteract the dairy industry's reduced profitability.

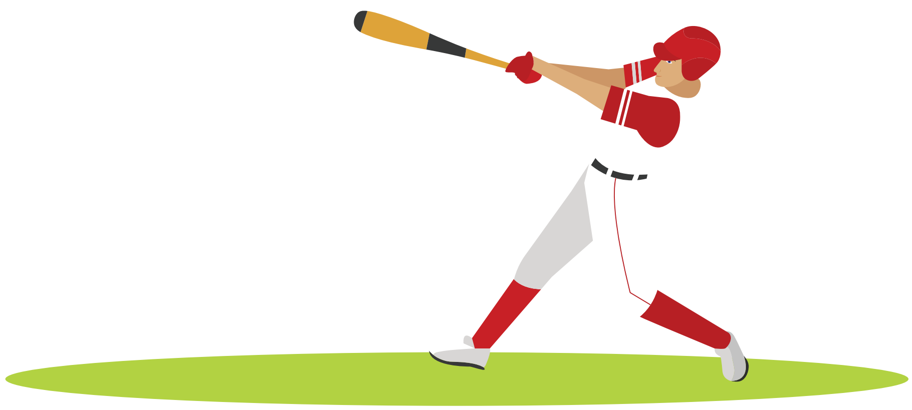
Raising Dairy Farm Profitability

Dairy farmers should consider developing an ancillary revenue stream by adding beef production to their existing operation. This expansion will require small capital expenditure due to economies of scope that exist between dairy farming and cattle ranching. Dairy farmers will be positioned to take advantage of the expected upswing in the Canadian beef industry due to increasing exports. Dairy and beef production are moving towards opposite ends of the regulation spectrum. Whereas beef production will have increased whitespace going forward, Dairy farmers will face weakening import controls as the Canadian government continues to negotiate and renegotiate free trade deals. Weaker import controls will result in downward price pressure and shrinking domestic market share. Dairy farmers who want to maintain their bottom-line have limited options available. Expansion within dairy is difficult due to the limited production quota available and lower cost structure of American producers. Downward vertical integration opportunities are limited by the size of the niche, premium dairy market.

MLB: AN OVER THE TOP HOME RUN

The MLB must cut out middleman broadcasters like ESPN and distribute content directly to viewers

Robbie Renwick



Striking Out - Cable Television

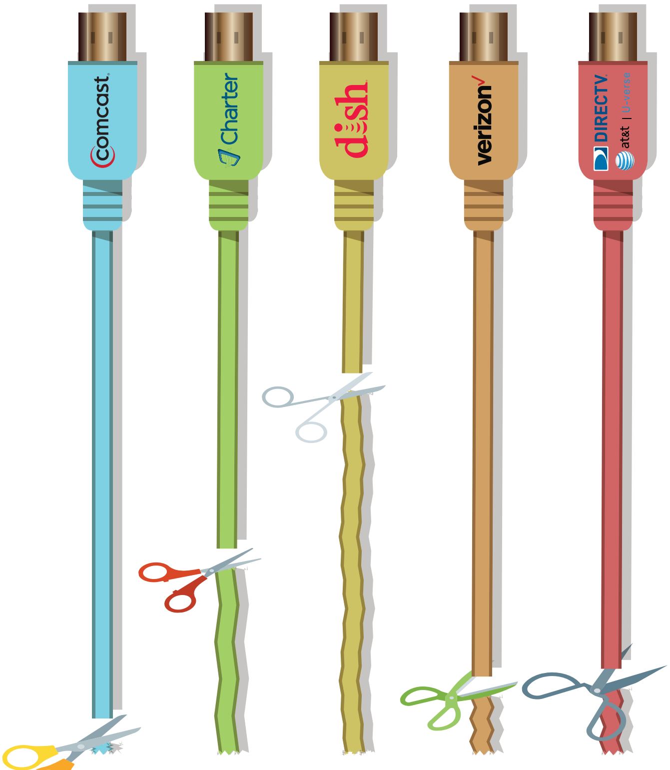
"Cord-cutting" occurs when a subscriber to media or television services cancels their subscription to traditional cable television packages. In recent years, this growing phenomenon has devastated the cable television industry, causing every major cable television company to lose subscribers in Q2 of 2016. Despite this, one category of content has remained remarkably untouched by cord-cutting: live sports. In a recent study, 43 per cent of cable television subscribers stated that the key reason why they won't cut the cord is because they "can't live without sports."

Cable companies such as Rogers and Comcast have aggressively invested in sports-focused channels such as ESPN and Sportsnet to retain viewership. This is evidenced by recent record-breaking content rights deals signed with the NHL and the NBA. In particular, the nine-year NBA deal signed with ESPN and TNT is estimated by the New York Times to be worth $2.7-billion per year. Media companies have been increasingly reliant on the attractiveness of live sports to keep their viewers subscribed. Evidently, it seems that even in the face of cord-cutting, live sports have persisted with immunity.

That paradigm has since been shattered. In October 2016, global marketing research firm Nielsen released a report indicating that ESPN had lost an alarming 621,000 subscribers in the month of October alone. This kickstarted a vicious cycle in which advertising agencies are now unwilling to pay high premiums on commercials that broadcast to a dwindling viewership. After a 16 per cent downturn in their NHL broadcast viewership, Rogers was forced to provide its advertisers with free ads to account for the smaller audiences. Consequently, the next sports league to re-negotiate TV rights is not likely to get the record-setting deal they desire.

Stepping up to the plate: Major League Baseball.

CABLE SUBSCRIBERS LOST IN Q2 2016



-4,000 -143,000 -281,000 -41,000 -49,000

SUBSCRIBERS LOST IN Q2 2016

Source: Arstechnica

It's Game Time

The MLB is operating at a critical juncture in which they could decide the future of content distribution. An urgent decision must be made as negotiations with sports broadcasters on the next national television rights deal are slated to begin in 2018/2019 as the current deal expires in 2021. National television rights correspond to 69 popular national regular season games, the all-star events and a minimum of 26 postseason games.

There are two options for the MLB to consider. They could continue with a status-quo strategy of distribution through the struggling cable channels, which may very well lead to a deal that generates less than the current $1.2- billion generated under the current contract. Alternatively, they could radically reshape the model of sports media distribution by attempting the unattempted. The MLB should become the first major sports league to bring broadcasting production of nationally televised games entirely in-house and distribute to viewers solely through their own proprietary "Over-the-Top" platform.

Hitting Homers - "Over-the-Top"

While cable television has experienced significant losses, over-the-top (OTT) platforms, which refers to content that is distributed over the Internet as opposed to traditional cable distribution, such as Netflix have experienced exponential growth. This trend is further emphasized by the recent launch of YouTube TV. OTT refers to any content that is distributed over the internet as opposed to traditional cable distribution. The rapid proliferation of OTT platforms can be attributed to two main factors.

Externally, the rapid trend towards mobile technologies and livestreaming has led consumers to trade in their bulky television sets for portable laptops and mobile devices. People no longer see value in subscribing to a bundle of channels on cable, many of which they may never watch. Instead, they would prefer to effectively proportion their consumption of media to be exactly what they want, when they want it, wherever they want it to be.

In October 2016, the Canadian Radio-television and Telecommunications Commission (CRTC) reported that for the first time in history, the amount Canadians spent on Internet had surpassed what they spent on television subscriptions. People now receive their news through Facebook, watch their sports highlights on YouTube and binge their television episodes on Netflix. It is solely a matter of when, not if, live sports will join the trend of OTT media consumption.

Internally, OTT is typically cheaper for content owners and broadcasters to distribute due to the bypassing of traditional cable television infrastructure investments and operating expenditures. While professional sports leagues have historically had to rely on cable companies to distribute their content to a large audience, OTT provides relatively cheap, direct access to the consumer without the need of a middleman. It is only a matter of time before the orthodoxy of viewing sports through cable is broken

> *"People no longer see value in subscribing to a bundle of channels on cable, many of which they may never watch. Instead, they would prefer to effectively proportion their consumption of media to be exactly what they want, when they want it, wherever they want it to be"*

by a sports league that is well positioned to adopt modern OTT distribution.

The MLB is in an ideal position to adopt a wholescale OTT distribution model as they possess a hidden asset that sets them apart from the other major sports leagues. Their competitive advantage is their subsidiary company MLB Advanced Media (MLBAM), deemed by Forbes as the "Biggest Media Company You've Never Heard Of". MLBAM has significant experience with developing and running OTT platforms. On top of building MLB.TV, which currently distributes regional MLB games, MLBAM has also built the top platforms for HBO (HBONOW) and for the Professional Golf Association (PGA TOUR LIVE). MLBAM's expertise in streaming technology and media distribution will allow the MLB to build an OTT platform in-house with minimal infrastructure investments, allowing for streamlined positive returns on the project.

MLB.TV Exclusive - A Perfect Pitch

Given the external consumer trend towards OTT platforms in conjunction with the MLB's internal capabilities with MLBAM, the MLB should look to vertically integrate the production and distribution of its nationally televised games. The MLB should develop "MLB.TV Exclusive" which will be the sole distributor of 97+ nationally-broadcasted games, effectively removing these games from cable television. This would only involve the games that are currently broadcasted nationally, not regional games as those are controlled by local teams. With this hybrid model, casual fans will still be able to watch their local teams on television, but the most popular national and playoff games will only be viewable through MLB.TV.

VALUE CHAIN COMPARISON

Source: IBR Analysis

The MLB should focus on developing an easy-to-use interface for the OTT platform that can be used on all devices to capture as many subscribers as possible. It is essential to make it easy for fans to adopt the new product with the goal of giving them the best user experience. The OTT platform will allow users to watch nationally-broadcasted games live in full resolution, and allow users to watch any past games archived in the platform.

There are more intrinsic benefits that the MLB must consider if they choose to distribute nationally televised games exclusively on MLB.TV. Firstly, by exclusively going OTT, the MLB will be able to maintain control of their content, which is their most important revenue-generating asset. Secondly, by distributing exclusively in-house, the MLB will be able to directly receive revenue from advertisers. This will result in full control of content distribution, and more importantly the full realization of advertising/subscriber revenues, without sports broadcasters slimming down margins.

Mitigating Potential Strikeouts

Given the novel nature of this proposal, the MLB must consider all potential risks and how they can actively go about mitigating them. One obvious risk is whether the current MLB viewers have both the technical capability and personal desire to switch to an OTT platform. Streaming high definition video live requires a strong wireless connection, and would only be cost-effective on an unlimited plan. Although over 50 per cent of the MLB's viewership is over the age of 55, the 65 plus age bracket have had the fastest growth in Internet adoption in the past few years, growing from 28 per cent in 2005 to 58 per cent to 2015. Furthermore, the 55 to 64 age bracket also has a strong 81 per cent Internet adoption. Lastly, going OTT would appeal to the younger age demographic, a key segment that the MLB desperately needs to attain.

In addition, there is a valid concern that packaging a "one size fits all" 97 game bundle would deflect casual or bandwagon fans who purely want to watch select postseason games. To mitigate against this, two packages will be provided for different fan bases. Firstly, an all inclusive 97 game bundle will be created for loyal fans to watch games during the regular season and the postseason. Secondly, when the postseason begins, casual fans that are hooked to their teams can buy a postseason MLB.TV Exclusive ticket at a discount to watch only the playoff games. This will hopefully convert casual fans into loyal MLB.TV Exclusive subscribers.

The Financial Scorecard

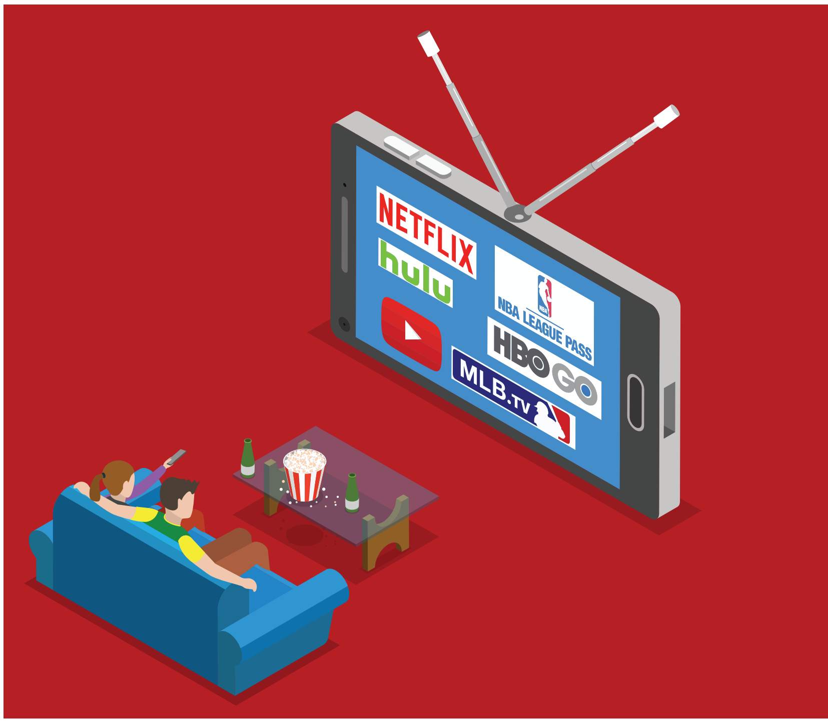
A change to OTT distribution should generate at least as much, and preferably more revenue, than generated by current national television rights; revenue from these deals is approximately $1.2-billion annually. With an OTT strategy, MLB.TV will be able to generate both subscription and advertising revenue. Both sources of revenue, of course, are largely dependent on MLB.TV's sustained viewership.

Since the OTT strategy will allow MLB.TV to monopolize national game viewership, they are in a price setting position. It is recommended that MLB price the platform at $180 for a season pass in order to encourage cable television subscription transfers and current MLB.TV customer upgrades. At $15 a month, cable television viewers would be enticed to pay since expanded basic cable packages cost $69.03. Conversely, current MLB.TV customers who are subscribed to regional games would be easily incentivized to upgrade their accounts as they would only need to pay five dollars more each month than the current $10 monthly fee for 97 more national games.

And on top of subscription revenues, the MLB will be able to capitalize on the incoming advertising revenue that they will now receive in place of the cable television companies. The cost of a 30 second commercial during a 2016 World Series game, which attracted an average of 23.4 million viewers, is more than $500,000. With an approximate average of 102 advertisements in a game, the World Series generates around $51-million, or about $2.18 per viewer, per game. It is assumed that advertising rates correlate directly with the number of viewers, so for a regular season national game where the viewership is closer to 3 million, the game would still generate around $6.5-million in advertising revenue.

Under these current assumptions, MLB.TV will need to transfer approximately 470,000 cable television viewers, upgrade their 3.5 million current MLB.TV viewers, and attract 140,000 pure postseason subscribers to the OTT platform to breakeven on the $1.2-billion they currently make on their national television deal. This is a feasible number as current nationally broadcasted TV games on Fox and ESPN receive upwards of 3 million views. As such, capturing approximately 500,000 viewers would be only 16 per cent of ESPN's average viewer base.

COMMON OVER THE TOP PLATFORMS



Source: IBR Analysis

It is important to note that the cost of developing the platform and broadcasting the games will be relatively inexpensive due to the ownership of MLBAM technology. Also, it should not significantly affect the profitability of the proposed strategy.

An All Star Strategy

In conclusion, current trends of cable television and OTT platforms will drastically affect the future compensation received for national television content rights. If the MLB fails to react in a timely matter, they will experience record low revenues for their content, while incurring the same fixed and variable costs.

Therefore, the MLB should strongly consider maintaining exclusive control of national television content rights and going OTT on their proprietary MLBAM platform. If implemented, this strategy can add defensibility to MLB's business model and will allow them to maintain control over one of their most important revenue-generating assets.

With the rising trend of OTT distribution, proprietary streaming software technology (MLBAM) and the expiry of the content rights contract in 2021, the time is perfect for the MLB to step up to the plate and hit a distribution home run.

Source: IBR Analysis

NINTENDO: TIME TO "SWITCH" IT UP

By ending their console-exclusive model, Nintendo can leverage their valuable franchises and reach a larger market

Sooruj Ghangass & Alif Karmali

Nintendo Lagging

Nintendo is a historic and renowned video game company, which has come to define the video gaming industry. With iconic and timeless characters including Mario and Zelda, the company's franchises have been cemented as inimitable mainstays. However, Nintendo's recent endeavors have struggled to meet the market's needs, with competitors outselling Nintendo in the console product category. As a result, the high-quality games Nintendo produces are being limited by its weak console penetration.

Device Convergence

The recent emergence of new device formats has disrupted the video game industry. Smartphones, tablets, and personal computers serve secondary gaming purposes while also being widely available and functionally diverse. Video game consoles have had to adapt to this trend, increasing functionality by offering computer-like processing power, internet browsing, and multimedia applications. This has resulted in the creation of hybrid devices such as the Steam Machine and Alienware Alpha, eroding the distinctions between handheld, console, and PC platforms. Consequently, consumers have begun comparing consoles on technical specifications such as internal memory and graphics processing capability. These technical decisions are carefully considered by consumers because of the significant upfront investment and the subsequent limitation on game selection. As hardware platforms become more homogenized, innovation in the video game industry is being primarily driven by game development. Although gaming console sales have tapered off by 19 per cent year over year in the most recent generation, game sales have continued to remain strong. As a result, the historically long R&D cycles for console development are becoming increasingly risky for Nintendo as dedicated gaming machines are giving way to general purpose hardware. Instead of conforming to this trend, Nintendo insists on an unorthodox innovative console design process, prioritizing hit-or-miss features such as dual-screen formats and motion control over technical specifications.

Console creator revenues are driven by console sales, as well as licensing fees, for games developed on their platform. In addition to their console creation unit, Nintendo also acts as a game developer, generating revenue on the sales of games that they create, including Mario Kart and The Legend of Zelda. Currently, Nintendo's console sales account for just over 40 per cent of total revenues, but only a fraction of their net profit due to the characteristically low margins on consoles. Historically, Nintendo's revenues have understandably peaked in years of console releases as consumers pay large upfront costs to acquire the hardware. However, Nintendo's profits have paradoxically been largest near the end of a console's life when game production for their platform has peaked. This can be explained by examining the industry from the game developer's perspective. Developers assess the success of a console before committing development resources to it to ensure that the platform has a large enough user base to market their game towards. As a result, new consoles often have an initial lack of games available on the platform, which increases as the success of the console becomes more apparent through strong unit sales reports and developer confidence grows.

Nintendo Problems

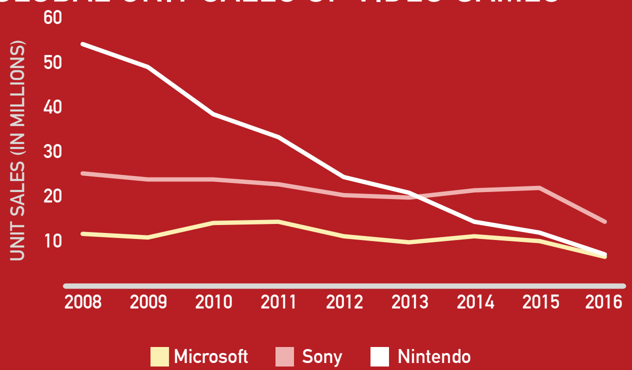
Within the already shrinking gaming console market, Nintendo has found itself losing market leadership from 36.2 per cent in 2011 to 16.3 per cent of the market in 2014. Nintendo's core strengths are in creativity and innovation, rather than the technological focus that hardware in the gaming industry has migrated towards. Consequently, Nintendo's consoles have been outsold by competitors for three of the past four console generations, with the Wii as the sole exception. Recently, the lone success story of Nintendo has been its handheld gaming devices that have dominated their Sony counterparts. With increasing competition from casual mobile and tablet gaming, continued success in the handheld segment is uncertain.

The same innovation that has guaranteed Nintendo success in its game development has been one of the primary reasons for the failure of their console offerings. With their focus on innovative console features and controls, Nintendo's hardware is significantly more difficult for developers to create games for in comparison to Microsoft and Sony consoles. The Wii U characterizes Nintendo's tendency to complicate hardware offerings. It boldly attempted to blend features including tablet controllers and motion sensing technology to create an environment in which developers could design unique and interesting games.

Game studios who do choose to develop for Nintendo consoles face an undesirable tradeoff. With the high cost of blockbuster game development, publishers strive to offer their game on a wide variety of platforms to recuperate their large investment. Therefore, developers attempt to design games in a way that they can be easily ported between consoles. This either results in Nintendo's unique features being ignored by developers or forces developers to incur additional costs to make use of these features, with no discernable benefit to doing so.

These added complications of developing for Nintendo hardware, coupled with inferior hardware, have resulted in a Wii U game selection one-quarter of the PS4 selection. As third-party support (developers that are not also the console creator) for the system declines, fewer consumers purchase the console due to the lack of title selection. This leads to further decreases in third-party development as the console's user base declines, creating a vicious cycle.

GLOBAL UNIT SALES OF VIDEO GAMES



Source: Complex

With game sales generating considerably higher margins than hardware, Nintendo's profits have tended to fluctuate with both first and third-party game production. Consequently, the recent decline in Nintendo's profitability can be seen as a result of their over-complicated consoles. They discourage third-party development and restrict the reach of their first-party games, due to their hardware exclusivity.

Exiting Hardware - Why Now?

Assessing the recent movements in the industry alongside Nintendo's particular situation, it is recommended that Nintendo should end its hardware development. The core competencies of Nintendo are better aligned with the game creation aspect of the industry, as their technological deficiencies are insurmountable in a device-converging environment. Now that gaming devices are ubiquitous and technologically advanced, Nintendo should develop for other platforms in order to best leverage their creative resources. For example, with new gaming formats such as virtual reality increasingly becoming the future of the industry, Nintendo's hardware exit is more important than ever before. As previously mentioned, Nintendo is not a high-tech company and cannot hope to compete by innovating in a space in which it has no expertise.

By acquiring additional resources to increase game development, Nintendo can prepare to develop successful content for these platforms instead of developing subpar hardware that stifles the success of their game franchises. Limiting Mario and Zelda to a single console diminishes their exposure to receptive audiences by restricting the hardware on which they are available. This approach also means that Nintendo must be well-received simultaneously, in both its console and game design, which is increasingly difficult in the current competitive environment.

Calls for Nintendo to exit hardware have been commonplace since the Wii U was condemned as a failure in 2014. The question is then: why have they continued to develop hardware? As a creative company, akin to Disney or Marvel, Nintendo's culture is wedded to controlling the entire creative process to ensure product integrity. Developing consoles in-house enables Nintendo to publish content that is tailored to the platform. Long-time president, Hiroshi Yamauchi once said, "at Sony, hardware led and software followed. For us, it was the opposite." This indicates that perfecting game content has always been the primary focus of Nintendo. Their purpose in developing consoles has been to facilitate the success of their games, however, their consoles are now limiting this vision. Leveraging their in-house talent effectively would involve divesting hardware development teams, while doubling down on the high-quality game development that Nintendo is enshrined for in gaming history.

Games such as Pokémon Go demonstrate the potential audience Nintendo could serve if their games were available on a variety of platforms including mobile, PC, and competing home consoles. For example, the recent Super Mario Run release garnered 40 million mobile downloads within four days.

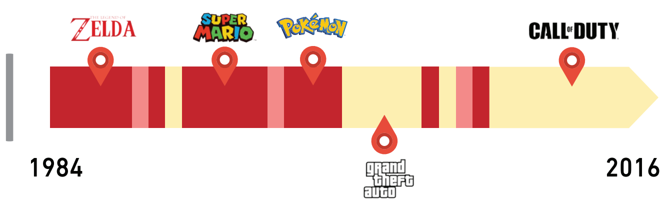
Nintendo Switch

Despite the above concerns, Nintendo is making a final stand with the Nintendo Switch, a unique format that blends handheld and console devices. Development for this system will once again be complicated by an unconventional control scheme and inferior technical specifications. Already, the Switch launch has been characterized by mixed reviews and console defects. However, the simultaneous release of The Legend of Zelda: Breath of the Wild has received outstanding reviews, and is only limited by its exclusivity to Nintendo consoles. Therefore, with the industry moving in an unfavourable direction, Nintendo should cease console development regardless of the performance of the Switch.

Nevertheless, Nintendo should continue to develop games for the Switch and see out its lifecycle. Switch games should be released as timed exclusives, being released to other platforms within an 8 to 12 month timeframe. This will maintain the incentive to purchase a Switch, but will allow Nintendo to develop expertise outside of the Switch and commit to a console exit.

By exiting hardware development, Nintendo is estimated to lose $539-million in lost hardware licensing fees, which is equivalent to selling 20 million additional units of full-priced console games. Compare this to Call of Duty: Black Ops that sold 30.24 million units, or the console game market which is estimated to be 150 million in annual unit sales. With the console market comprising 7.3 per cent of the total video game market, Nintendo will need to achieve a 3.3 per cent market share of video game sales across all platforms to break-even with this strategy. Although this break-even is slightly understated due to additional porting

BEST SELLING GAMES BY YEAR

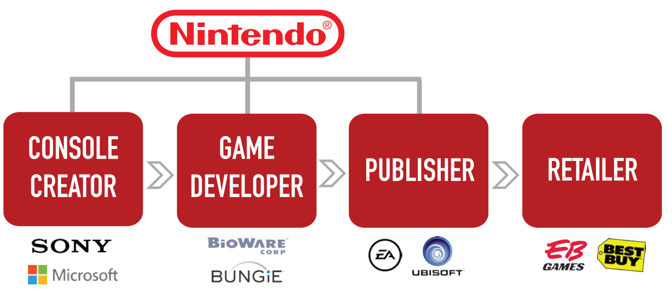


Source: Complex

costs that Nintendo will incur, with Activision Blizzard holding 5.1 per cent market share, there is an established precedence for game developers to achieve this. Nintendo will be able to reach this target since its transition to platform-agnostic game development will access a much larger market. Moreover, Nintendo's historical fan-base will be re-engaged and jump at the opportunity to purchase Nintendo franchises across different devices.

As a close competitor of Nintendo's throughout the late-1980s and 1990s in both consoles and games, SEGA offers a case study of the result of delaying a hardware exit until it is too late. As Nintendo gained a lead in hardware with their NES systems, they pushed SEGA out of the console space. However, SEGA failed to cease console development and stubbornly pushed on with their exclusive content. Today, SEGA is an afterthought in the gaming landscape, a mistake Nintendo should avoid by imminently protecting their franchises through expanded game development.

INDUSTRY VALUE CHAIN



Source: IBR Analysis

How They Should Do It

Nintendo's software strategy should revolve around leveraging their franchises and focusing resources into game development. Nintendo's franchises can be categorized into three tiers representing their gaming adoration and prior success: the first tier comprises the most well-known franchises that are universally recognized, such as Mario or Pokémon, while the second includes franchises that are recognized by gamers and beloved by many, but are less prevalent or recent. Franchises such as Metroid and Kirby would fall into this category. Finally, the third tier consists of cult classics or one-off games that never received extensive attention. Pikmin or Earthbound are games that sold well in the past, and could be revived in Nintendo's post-console strategy. With game development as the new focus, Nintendo should deploy resources according to this tier structure. The first should be exploited regularly, following an annual development schedule. The second-tier franchises should be developed at least once per console generation. The final tier may not see development, depending on demand, and should be targeted towards niche segments, which are currently underserved. Cheaper mobile game development can be used to test demand and innovative ideas before committing to console development. High-quality, enjoyable game development will permeate each of these games as Nintendo must compete on quality to establish a strong market leadership position.

Also, Nintendo should leverage their franchises through cross-franchise mechanisms to incite loyalty in audiences. Games such as Mario Kart or Super Smash Bros encourage gamers to become familiar with multiple Nintendo franchises at once. In-game features or additional content could be unlocked through owning multiple Nintendo games, enhancing the gaming experience while also promoting additional game sales. Similarly, merchandise with in-game functionality could also foster loyalty and additional revenue streams that would reward repeat Nintendo purchasers across multiple platforms. Amiibo characters — figurines using NFC technology to enhance the in-game experience — are an existing example of this, serving both gaming and collectible functions.

A cultural concern from Nintendo regarding open marketplaces, such as Steam or Google Play, is having to compete with inferior games that may dilute their brand reputation. However, Nintendo will be competing with comparable big-budget games on consoles and PC markets, and should focus their biggest productions for dedicated gaming platforms. This is in line with management's preferences to employ creativity and immersion in their game design. Additionally, creating Nintendo applications or games within the mobile space can tie together various franchises and games while catering to a wider audience, which might not be accessible otherwise.

One major risk of this strategy is the lost revenue and potential downsizing a hardware exit would entail. Although, this cannot be mitigated entirely, doubling down on game development could offset short-term revenue losses, as evidenced above. Similarly, there is a significant investment required to divest hardware and commit to game development. However, Nintendo's large cash position of $5.6-billion is suited for this purpose, allowing the organization to pivot at a time of industry inflection.

Imagine jumping across a skyline as Mario in virtual reality or roaming the fields of Hyrule on horseback on your tablet. By reinvigorating the creative successes of past Nintendo projects, Nintendo will pave its future in the gaming industry. Creativity, strong franchises, and innovative game development are what Nintendo should be known for, instead of tying their transcendent brands to a failing console line.

LEGO: RESTRUCTURING, BRICK BY BRICK

Restructuring Lego's supply chain ensures successful growth in newer markets

Eden Ip & Jerry Wang

Troubles Masked by an Iconic Brand

When people think about the world's most powerful brand, companies like Apple and Google are often at the forefront of the discussion. Surprisingly, the title belongs to Lego, a family-owned toys company headquartered in Billund, Denmark. For over 50 years, Lego products have populated toy store shelves globally, creating a massive toy empire that now stretches into film, amusement parks, and pop culture. Two key aspects that elevate the Lego brand are a wide target audience and technical expertise in quality toy production. Lego appeals to children from an enjoyment standpoint, while it offers educational or sentimental value to adults. In 2016, Lego generated $520-million in net profit, outpacing the aggregate profit of both its main competitors, Mattel and Hasbro. Amazingly, it was able to accomplish this at a sales volumes three times smaller.

Looking forward, Lego needs to question which strategies it should emphasize in order to maintain their industry reputation and strong financial performance. To date, Lego has focused on setting the foundation for international expansion. To sustain its historical double-digit growth rate, Lego intends to make ambitious investments to expand into developing Asian and Latin American markets. Lego's continual expansion plans may be at best, aggressive, and at worst, unsustainable.

Lego has increased sales by an average of more than 15 per cent annually over the last 12 years, a rolling figure, which it would like to maintain. After enjoying years of double-digit profit growth, operating profit growth in 2016 slumped to 1.7 per cent. However, this profit decline was not alarming, as investments into infrastructure and human capital were made recently to supplement their anticipated expansion strategy. Around one in four Lego employees were hired in the last six months, with a substantial hiring influx from international localities.

Underlying Lego's current operations is its inability to meet order fulfillments in legacy markets such as North America. While expansion presents an opportunity for Lego to further scale operations and improve brand perception, it does not address the storm of unfulfilled demand and supply chain inefficiencies. The year 2017 becomes a pivotal time for Lego as it attempts to meet demand in Europe and the United States, while expanding into new markets across the globe.

With expansion operations to facilitate international growth already in place, the concerns facing Lego seem to identify a lack of new revenue channels as the company's major problem. In reality, repairing its unresponsive supply chain is critical to satisfy the increasing unmet demand, and creating a more sustainable expansion strategy Without addressing its current operations, international expansions could magnify Lego's current supply chain issues. It will further prevent the company from meeting increasing demand, risk current financial standing, and jeopardize brand presence, in both its legacy and anticipated developing markets.

Reconstructing a Problem from the Past

This is not the first time Lego has faced an important growth decision; Lego's turnaround from bankruptcy remains a case study on how a company can reinvent its business model, while retaining its core values. In order to capitalize on the increasing demand for its toys, in the early 2000s Lego rapidly diversified its piece types, outsourced personnel from its corporate base, and overstretched itself in a wide series of lackluster strategic partnerships and product lines. These moves proved strategically disastrous, as they reduced product quality, heavily diluted the Lego brand, and put massive strain on the company's supply chain management. Lego was left on the verge of bankruptcy.

In dire need of a turnaround, Lego refocused on its fundamental strengths of construction sets; product lines such as Galidor which did not feature the traditional brick piece type were cut, as were supplementary products such as computer games. To rebuild a culture of innovation, Lego hired adult Lego fans to take creative leadership of product design. Now in 2017, successful brand partnerships such as Star Wars, and in-house product lines designed by the Lego creative team, such as Legends of Chima, and the worldwide appeal of the Lego Movie, have brought an avalanche of demand. New Lego sets have been spawning on shelves at a raid rate with more specialized pieces than ever before.

While Lego no longer faces the difficult task of stimulating demand, the operational problems from its past have resurfaced to an even greater scale. During its troubled years, Lego averaged 420 annual SKUs. With then entry into digitial devices, and a foray into video games with Lego Dimensions, Lego is projected to surpass 900 different SKUs by 2017.

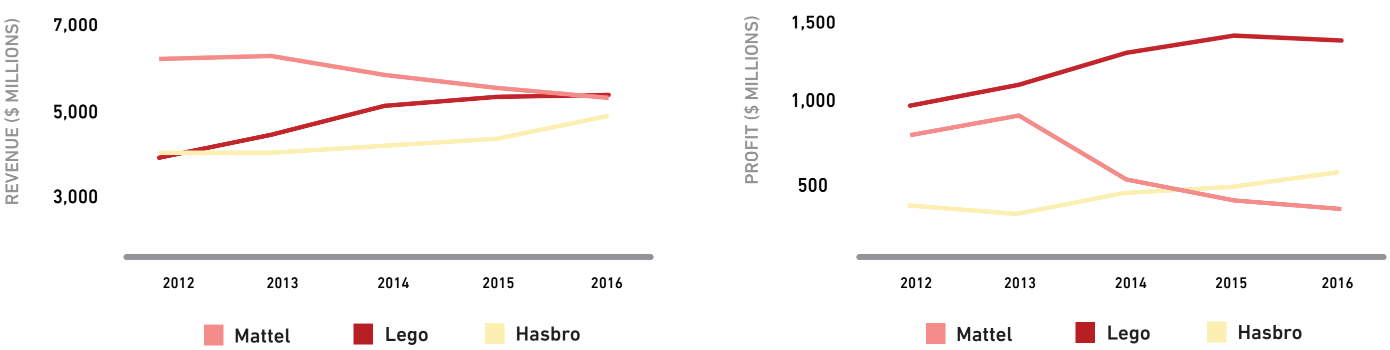
A lack of a cohesive global strategy has long plagued Lego, especially during its turbulent times. Key functions such as direct-to-consumer business and its global supply chain were described by former CEO Jorgen Knudstorp as "highly dysfunctional and operating in silos." While Lego has committed to investing into production infrastructure for 2017 expansions, much has been centered on the Asian market, despite ambitious expansion plans to capture demand in Oceania and Latin America. As a consequence, there is an imbalance among Lego's global supply chain, potentially exposing Lego's existing European facilities and ongoing Latin American operations developments to the risk of overstretched regional supply chain capabilities. Resulting in the fundamental inability to provide a consistent level of service and quality across the entire supply chain. Lego risks repeating the supply chain dysfunction that nearly took down the company before.

Bottlenecks in Lego's supply chain hinder production capacity, with the problem being magnified in light of the company's current expansion efforts. Therefore, Lego must revamp its supply chain infrastructure to properly execute its current expansion goals. Additionally, it is crucial that Lego's supply chain infrastructure investments be evenly distributed globally to avoid bottlenecks in certain markets, resulting in stagnate growth and additional expenditure. Failure to address this imbalance could potentially cripple its global supply chain, which not only damages its expansion prospects, but disrupt sales in its legacy markets. Without these considerations, Lego risks another poorly executed expansion strategy, leaving retail shelves empty and a decline in profits.

Piecing Together the Business

Lego's previous near-bankruptcy experience was largely caused by the massive dysfunction in their supply chain. Specifically, it was due to the rapid expansion of product lines with highly variant piece types. The supply chain

LEGO REVENUE AND PROFIT COMPARISONS TO COMPETITORS



Source: Lego, Hasbro, and Mattel Annual Reports problem that Lego faces today is reminiscent of the past - constantly evolving consumer interests and demand have put strain on Lego's supply chain and its ability to respond dynamically to demand shifts.

Lego currently has moulding, brick decorating, and packaging plants in Denmark, Hungary, and Mexico. Its plant in China specializes in moulding and its plant in the Czech Republic specializes in packaging. Within these facilities, production is done in independent teams based on products, which results in 70 per cent utilization. Sixty-five per cent of the production has to be completed in third quarter to prepare for the holiday season. Due to growing demand, Lego is forced to invest in working capital to expand inventory due to growing demand, as projections have to be made well in advance to account for production capacity.

LEGO'S CURRENT SUPPLY CHAIN

Source: Lego Annual Report

As part of its mandate to continuously innovate, the shelf life of an average Lego set is under two years, with new sets and themes launching throughout the fiscal year. The hottest new Ninjago or Star Wars set of the season could very well be retired and replaced with a new product by Christmas. Short product life cycles and constantly evolving consumer interests create uncertainty in demand forecasting.

As a consequence of short product life cycles and shifting consumer interests, Lego's production process is constantly evolving. A high variety of products with different models and colors require continuous process changes. The high costs associated with changeovers makes it difficult for Lego to quickly and effectively adapt to new consumer trends, and shifting demand.

Both Hasbro and Mattel adapted to developing markets by out-licensing its brand and production to third party vendors and factories in these markets. Historically, Lego attempted to outsource its simpler production to improve efficiency and focus its resources on growth and innovation in developing markets. However, Lego was not able to maintain product quality, and experienced outsourcing failures with partners such as Flextronics. This resulted in Lego ending their contracts prematurely. With fewer production facilities in place across the globe, raw materials and finished products have to be transported over long distances to reach their target market. This drives up transportation costs, resulting a 12 per cent increase in sales and distribution expense in the past year.

Lego's current supply chain is not up to par with competitors Hasbro and Mattel in developing markets such as Asia and Latin America, creating inefficiencies in inventory management. Specifically, Lego's days of inventory in these markets is 102 days, which is significantly higher than that of Hasbro or Mattel, which are 59 days and 71 days respectively. This concern is magnified when combined together with Lego's failed efforts to resolve its existing supply chain and manufacturing bottlenecks within its legacy markets. It is a possibility that Lego's high standards of quality control could be the cause of high days of inventory. However, the rapid improvement in Lego's production technology rather implies the culprit to be poor inventory management due to management's inability to accurately predict sales, seeing as work in progress inventory increased by 30 per cent in 2016. For

Lego to succeed and sustain its growth in these markets, Lego must improve its ability to forecast demand in these areas and produce according to demand in each market.

Lego did not have a clear focus when it came to its product distribution strategy. Its undifferentiated service policies between small independent stores and large retail chains did not reflect the proportion of revenue generated from the two sources and often caused product shortages in large chain retailers. With developing markets in Latin America and Asia offering different makeup of local vendors, Lego will face significant difficulties in adjusting its service level between vendors. In addition, Lego lacks infrastructure to allow timely information flow to its vendors. This forced Lego to develop a multi-tiered inventory system which put further strain on its distribution channel and increased working capital investment. Work-in-progress inventory consisted of 47 per cent of Lego's total inventory, while only 18 per cent for competitor Mattel.

Building Instructions for Lego

Investing in a more localized supply chain infrastructure will give Lego more areas to improve their supply chain globally. Sourcing from local suppliers will allow Lego to reduce costs for transporting raw materials, work-in-progress inventory, and finished product inventory. Additionally, creating local production facilities brings Lego's production in close proximity to vendors, allowing Lego to better forecast their local demand and reduce overall statistical fluctuations, thereby decreasing lead time and improving inventory management. Each facility would have the ability to satisfy local customers' needs for customization without affecting the capability of other production facilities to supply other markets, thereby allowing Lego to have more flexibility in production across each of their markets across the globe. This strategy simultaneously allows Lego to control and maintain its product quality by keeping production in house, as outsourcing has proven to be unsuccessful in the past. Ultimately, Lego will be able to operate on a more real time demand while holding minimum inventory.

Increasing the volume of information sharing and the speed of information flow is imperative to the success of a balanced global supply chain and enables Lego to make large scale operation decisions faster. Streamlined communication would allow for improved ability to match demand, and shift utilization appropriately to meet demand. Lego should aim to create relationships with its local retail partners through real-time information sharing to reduce risk of unmet demand. In addition, Lego's recent partnership with the supply chain management software firm, JDA Software Group Inc., will improve the organization of the information flow for a more localized supply chain.

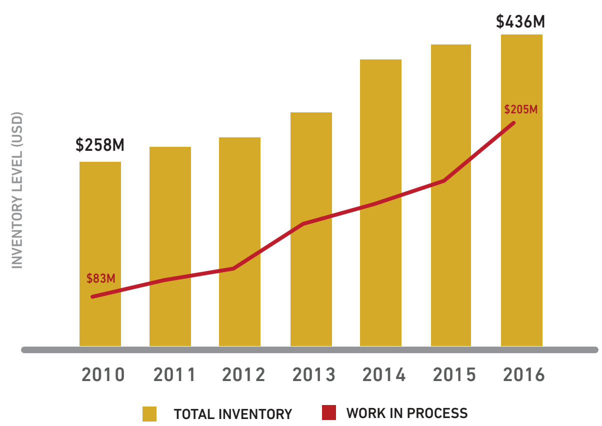
The goal of this strategic decision is to ultimately help Lego better predict its demand and drive sales by increasing the accessibility of its products to Lego's customers in developing markets. Lego will be able to shorten its distribution channel and reduce material flow across markets and ultimately increase savings.

Lego's Yellow Brick Road

By constructing two new production facilities in Latin America and APAC, Lego can relieve the demand pressure from its existing Mexico and China facilities, respectively. These new facilities would cost $215-million USD each, with similar production capacity to Lego's Hungary plant post-expansion. If Lego is able to streamline its distribution channel within the next five years and bring its days of inventory down to 80 days, closer to a competitive level, Lego would be able to realize over $368-million USD in savings from working capital investments. In addition, Lego can achieve over $72-million USD of annual distribution savings through shortening distribution channels after the first year when the production facilities are operational. This will provide Lego a return on investment of 25 per cent and give Lego the potential to focus its resources on sales growth and product innovation in the future.

Investing in infrastructure in developing markets will allow Lego to align its supply chain structure with its growth strategy by matching production with sales geographically to better position itself for continuous growth in the global toy industry. If they can successfully revitalize their supply chain with a sustainable strategy to fulfill the immense demand for its product globally, Lego has the opportunity to pull away as the undisputed leader in the entire toy industry.

ANNUAL GROWTH OF INVENTORY AND WORK IN PROGRESS



Source: Lego Annual Report 2010-2016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