IVEY BUSINESS REVIEW

iCUSTOMIZE: APPLE'S NEXT FRONTIER

With slowing growth, 3D printing may be Apple's only path forward **| P. 22**

THE IVEY HBA STUDENT BUSINESS STRATEGY MAGAZINE

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Ivey Business Review is an undergraduate business strategy organization 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 exclusively 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 blog platform allows students and young alumni to further the IBR mission year-round.

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Note from the Editors:

“Fortune favours the bold”

This issue, we explore bold ways in which companies can move forward in order to win in their respective markets. Many companies are accustomed to facing and adapting to ever-shorter product life cycles and incremental improvements by competitors; however, this a race that will never end. To get ahead, you must change the rules. While our last issue was about adaptation, this issue, we focus on bold, but calculated risks. Between the covers lies examples of opportunities managers in a variety of industries can seize in order to stay ahead.

Our article featured on the cover discusses how Apple can enter the 3D printing business to not only supplement their current offerings, but to essentially carve out a new industry. As well, the piece on the Canadian law system addresses how lawyers can leverage a new digital platform to provide more competitive rates to low to middle-income Canadians, while decreasing excess capacity in the industry.

Innovation, however, is not just restricted to technology. Our team also explored how Community-Supported fisheries, which are changing the way businesses source sustainability, can bring more value to the hotel industry.

Moreover, our interview with the CFO of the Toronto International Film Festival (TIFF) brings insight on their expansion into the digital space. No longer just content with being a film festival, TIFF is forging ahead into the digital world in an attempt to become a global film center.

However, with bold moves comes highly uncertain outcomes. Thus, while it is important to dream, it is also imperative to be strategic and critical of the changing landscape you are faced with. We hope you enjoy and take inspiration from the ideas presented by our team.

Sincerely,

Xiaoya Xu & Karen Yu

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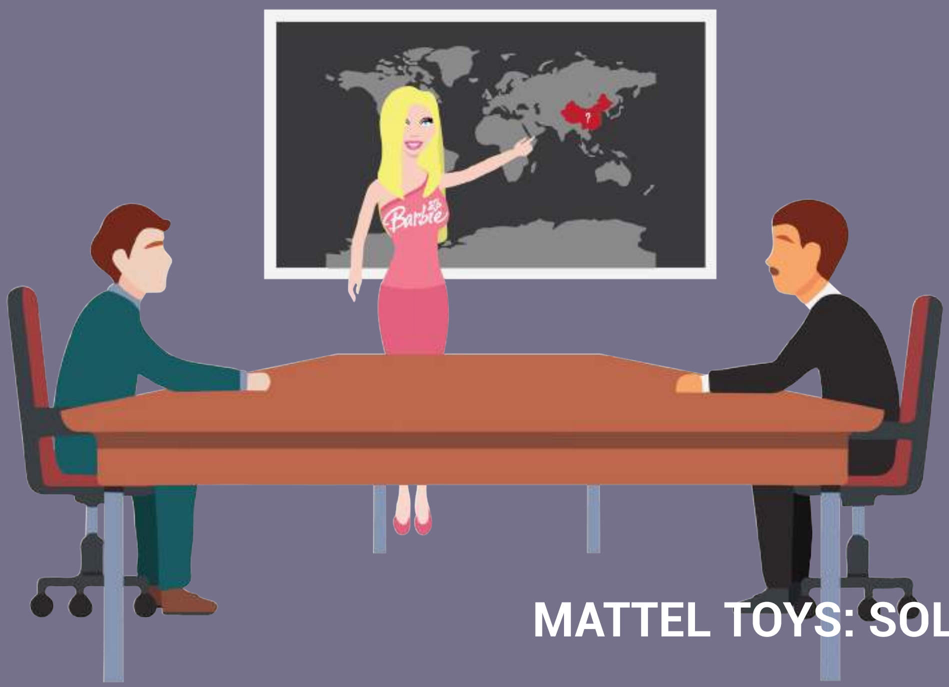
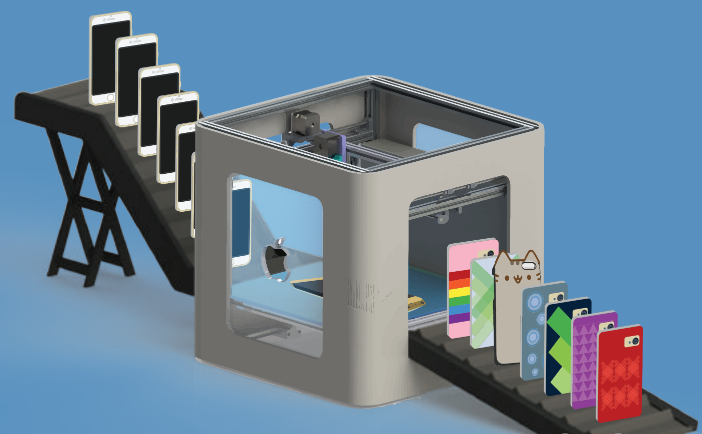


18

MATTEL TOYS: SOLD IN CHINA



Interview: Douglas Allison

Chief Financial Officer at the Toronto International Film Festival Group

About TIFF

TIFF is a charitable cultural organization whose mission is to transform the way people see the world through film. An international leader in film culture, TIFF projects include the annual Toronto International Film Festival in September; TIFF Bell Lightbox, which features five cinemas, major exhibitions, and learning and entertainment facilities; and the innovative national distribution program Film Circuit. The organization generates an annual economic impact of $189M CAD.

Douglas Allison: Chief Financial Officer

Douglas Allison joined TIFF in October of 2013 as Chief Financial Officer. Douglas oversees TIFF's Finance and Information Technology teams, leading the financial strategic plans for revenue generation and audience growth, and financial strategic preparation as TIFF continues toward its vision for the future: think global, consolidate local.

Douglas previously spent nine years with the Canadian Football League (CFL) where he oversaw a period of unprecedented financial stability and implemented some of the most significant advancements in the organization's history. He was also heavily involved in the CFL's recent breakthrough negotiations of its collective bargaining agreement and national broadcast agreement.

Beyond the finance world, Douglas led the events team in its execution of the 99th Grey Cup in Vancouver in 2011 and the 100th Grey Cup celebration in Toronto in 2012. Prior to the CFL, in 2004 Doug worked with the Ottawa Senators and spent five years working with Ernst & Young in Toronto and London, England.

IBR: The vision statement of TIFF is to be the global centre for film culture. When you think forward 10-15 years, what do you think TIFF will look like?

DA: I think for me it is being a global source for film culture, regardless of what country you are in. TIFF needs to be the first place to go for real authoritative, impactful engagement with film. Whether it's because people know they can engage with the community within TIFF in an interesting way or that the expertise that comes out of TIFF is there. For me, the 15 year vision is that the tentacles we have in the world get more and more pervasive and the community we have built becomes more and more connected.

IBR: TIFF's strategy seems very multi-pronged. If you had to choose one, would you say it's about having more international locations, more international content or reaching more international audiences?

DA: I think reaching more international audiences in the most economical way. If the best and most cost-effective way to engage the community is virtually, then that's the way we want to do it. Alternatively, the physical route may be more appropriate for the purpose of other goals. Last year, we took our annual Canada's Top Ten Festival down to Los Angeles to expose both TIFF and Canadian content to a new marketplace, and to engage with the industry there. For this type of foray, it made more sense in a physical way. Depending on what we're trying to accomplish, the strategy gets dictated by it. Maybe at some point we will have more international offices, but that's far in the future.

TIFF'S INTERNATIONAL PRESENCE

Source: TIFF Annual Report

IBR: What were some tangible outcomes of taking the Canada's Top Ten Festival down to Los Angeles?

DA: Seeing the attendance numbers and media reaction for the varied films we brought down has allowed us to refine our selection for future touring programmes, including an upcoming partnership with Telefilm Canada where we are focusing primarily on new, unreleased Canadian film. While we have primarily focused on producing brick and mortar screenings in foreign markets, there is a real opportunity to carve out a digital niche by offering exclusive online screening opportunities in the future, particularly as our Digital Studio builds our internal capacity.

IBR: You mentioned spending in the most economical way. If you had one incremental dollar, which initiative would you spend it on?

DA: I know you asked for one, but I'm going to give you three. One is enhancing the way we can steer people towards film. I want to conduct more directed and individual marketing to get patrons into the building more often for things they will find enjoyable. The other aspect is digital. I want to increase the amount of content we create and improve the platforms through which they are delivered. Thirdly, is the building itself — TIFF Bell Lightbox. We're now five years into the building, and we've learned a lot about how people engage with it. I want to spend more money making the building more welcoming.

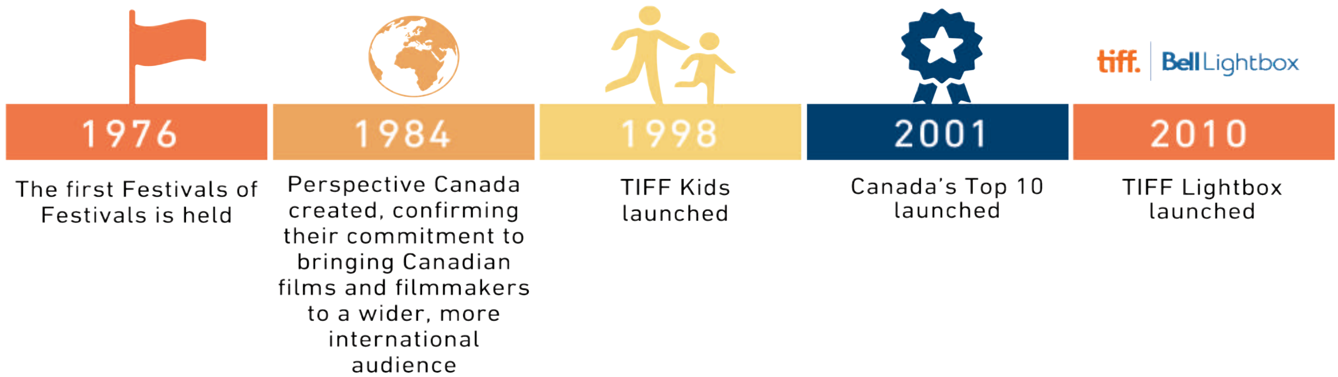
IBR: TIFF's mission statement is to transform how people see the world, through film. Transforming how people see the world requires large volumes of people, yet attracting volumes tends to require more commercial, less challenging films. Does this tension manifest itself in daily operational decisions, and if so, how?

DA: While volume is important, it's not necessarily a strict rule. There is no set level of engagement for TIFF as a whole. We do set shorter-term goals with regards to the various elements of our outreach, but globally we have not set a target audience level.

The key is to bring things that enhance people's lives and that they leave the experience with TIFF changed in a positive way.

Now as we look to grow that audience, we are starting to be more ambitious. We need to start reaching into

TIFF'S HISTORY



Source: TIFF Website

different audiences and countries to grow as well. So no, we are not looking to be more commercialized. We want to take the things that were great to start with and export it in new ways. Whether that's virtually through digital forms, or physically by taking some of our key programming that works well here to different areas. There's an incredible scale of people that watch film around the world and I don't think you need to over-commercialize anything to engage them.

IBR: One of the easiest ways to make sure your programming is accessible to diverse audiences is by growing through online platforms. How does TIFF think about using its brand to achieve this when you own little in the way of content?

DA: That is not a new struggle, just a new platform. The film festival at its core doesn't own the content either, but it still attracts people to engage with it. If you want people to see content that's not yours, you have to compel those artists to buy into what you're trying to do with it. I think when we go digital, we have to give filmmakers equally compelling reasons to do so.

TIFF has to play to its strengths; it has to provide an experience that is more than just strictly the film on the screen. For example, presenting films people normally wouldn't get exposed to, and producing talks, Q&As and analyses that go along with the films. This makes people go see a film at the festival or the building and want to engage with film through TIFF online.

We are looking to build out a digital programming vision that will strive to do something from a very real place, something honest to create emotional connections. Part of our digital strategy this year will be to build a conversation online around film via articles, podcasts, videos and social channels. The goal is to grow TIFF to become a smart, passionate gateway to new films, filmmakers, craft and storytelling; to become a digital barometer of the global film scene.

IBR: Do you think TIFF will start producing more of its own content, such as its own films?

DA: We will definitely start producing more of our own content and analysis, and do more critical aggregation of people's analyses and thoughts around films. Whether or not we get into producing - I don't know.

IBR: Curation is obviously a strength of TIFF's. As it moves online, there's so much more information, for example, websites with film critiques. How will TIFF differentiate online?

DA: From a strategy standpoint, it's a question we're still juggling with. When you look at curation across all industries in the last 10 to 20 years, there's been a democratization of curation. People are going to aggregate sites to get an aggregation of a large population's opinions and I think that our role in that, we still have to find out.

But at the core, there's still that need for someone to present the opportunity for discovery of things people would otherwise not be exposed to. TIFF will bring not only things that the masses have indicated are worth watching, but we will also bring the hidden gems. As we move from physical to digital, we have to keep that core strength.

IBR: Digital seems to be a large part of your strategy moving forward. TIFF's core competency isn't in the digital world, so how have you been able to bring competencies into the organization or build them from within?

DA: In terms of the competencies we need to deliver content, we brought some expertise in; we are ramping up our capacity and looking to build out strong partnerships. From a content perspective, that's a core competency this organization has always had. Arguably, the more critical aspect is providing compelling content, rather than how it's disseminated.

IBR: TIFF is launching an online media outlet on film culture, which is meant to be a centrepiece of the digital strategy. What resources are being put behind this (e.g., headcount, budget, etc.)?

DA: This is a seven-figure investment with nine full-time additions and many contracted and outsourced content contributors. We will be using this to start investing seriously in both technology and content.

IBR: When is this projected to launch?

DA: Elements of this initiative have and will continue to launch on the content and product fronts. From the content perspective, we are trying a number of new editorial plays and we will see what resonates with our audience including articles, new podcasts, a new newsletter, "The Review", featuring a number of well known guest curators, including James Franco. On the product side of things we will be launching a new web design that we plan to iterate on, a new tool for queuing in our ticket portal as well as a festival app.

IBR: A competitive advantage TIFF has held in the past is its ability to host the worldwide premiere of award-winning films such as Silver Linings Playbook and Moneyball. However, there has been increased competition in the space, leading to films such as Gravity debuting first at smaller festivals such as Telluride Film Festival before they debut at TIFF. How does TIFF approach tackling competition?

DA: There is a lot of room in the film festival marketplace and our priority is to give filmmakers the best opportunity to promote, enhance and bring their films to the appropriate audience. As long as we're focused on bringing one of the world's best viewing audience to Toronto and providing that to filmmakers, then I think that will be the recipe for success. Although we're keeping an eye on what's going on in the film festival market, the focus is on enhancing our own strengths.

IBR: As you look to start building your new 5-year plan, looking back, how successful do you think TIFF has been in meeting the different mandates set out in the last strategic plan?

DA: Incredibly successful. The last strategic plan was essentially the first five years of the TIFF Bell Lightbox building. There were a lot of unknowns and predictions of how things would work and how we would make them work. Some of them worked out, but some, we have had to be very adaptive with. But I think the organization having built this building means it's become a very sustainable place, and that speaks to the "Consolidate Local" piece. In terms of "Expanding Globally", we now have things traveling internationally, including all around North America, Europe and Asia. Both of those aspects have been pushed forward.

IBR: Being a non-profit, TIFF has somewhat of a complicated mandate that traditional financial key performance indicators (KPIs) such as profit or EPS, would not be useful in measuring. Organizationally, TIFF has four strategic priorities listed: artistic excellence, visitor experience, people & culture and sustainability; what KPIs to do associate with these priorities?

DA: Non-profits are such a big part of Canada, but in all my education I only ever learned how to report on financial performance. I do not remember ever learning about measuring the achievement of a mission. This is starting to change and you see other non-profits struggling with it as well. Out of all the struggles, we have seen a lot of creative solutions emerge. Our four pillars seem difficult to measure, but not with creativity. For example, if you look at visitor experience, we have conducted many surveys and have developed metrics such as the number of people served within a time frame and rate of complaints. Same thing with artistic excellence; we can still measure it by looking at how critically acclaimed the films that come through the building and festival are, and what the breadth of international reach of the films is. We have KPIs within non-traditional areas, but we have had to be more creative and iterative.

IBR: In order to become a great film festival, financially, what does TIFF feel is the best route for raising the necessary funds?

DA: One of the best things about the revenue streams is that they are so diverse and it has allowed the organization over the last 40 years to go through the ebbs and flows of the economy and industry unscathed. I think as we move forward, I want to maintain that diversity.

IBR: 31% of TIFF's revenues come from sponsorships. How do you feel this aspect impacts how TIFF approaches strategic decisions and operations? Does this ever come into conflict with creative mandates?

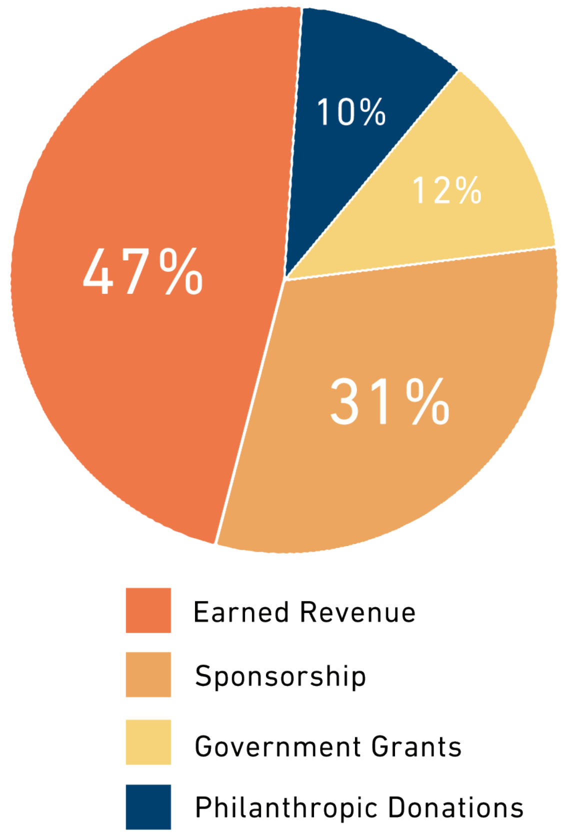
DA: It does impact some of our strategic decisions, but in a nice, enhancing way. When a sponsor chooses to engage with the festival, it's not really on a whim or about buying the eyeballs. When we go through the mutual courting process of trying to bring them in as sponsors, they learn about TIFF and our mission. If it doesn't resonate with them as a sponsor, they won't be here or last very long.

It comes into conflict, but a lot less than people expect. I often think the conflict about us finding that right sweet spot of allowing sponsors to show their support and engage with our audience without taking away from the film viewing and overall experience.

IBR: In addition to managing sponsors, what do you feel are other unique aspects of acting as the CFO of a non-profit organization?

DA: I think the most unique thing about non-profits is the complexity of the decision-making. There's a misconception that decision-making for non-profits is less complex because you don't have an obligation to make a whole bunch of money. But at the same time I think the actual decision-making is far more complex. Because you do have this obligation to make a certain amount of money and be sustainable and at the same time you have this mission and complexity layered into it. And I think that's the most interesting part — the complexity of decision-making and getting yourself and the organization comfortable with that complexity, and enjoying it rather than finding it sort of frustrating.

TIFF REVENUE BREAKDOWN



Source: TIFF Website

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NESPRESSO: STIRRING UP THE POD

Once the undisputed leader and pioneer of the single-serve coffee industry, Nespresso now faces serious competitive pressure as it struggles to figure out the North American market.

Serena Verani

A Latte Problems

Despite its global leadership in the single-serve market, Nespresso failed to gain significant market share in the North American market since its entrance in 1991. It currently has only 4% market share in the region while its competitors, Tassimo and Keurig, lead with 25% and 53%, respectively. Released in 2014, Nespresso's VertuoLine machine was designed to specifically appeal to North American consumers by allowing users to brew large cups of coffee unlike Nespresso's flagship product which brews small espressos. Over the last two years, however, Nespresso has failed to increase its North American market share.

SINGLE SERVE POD COMPARISON

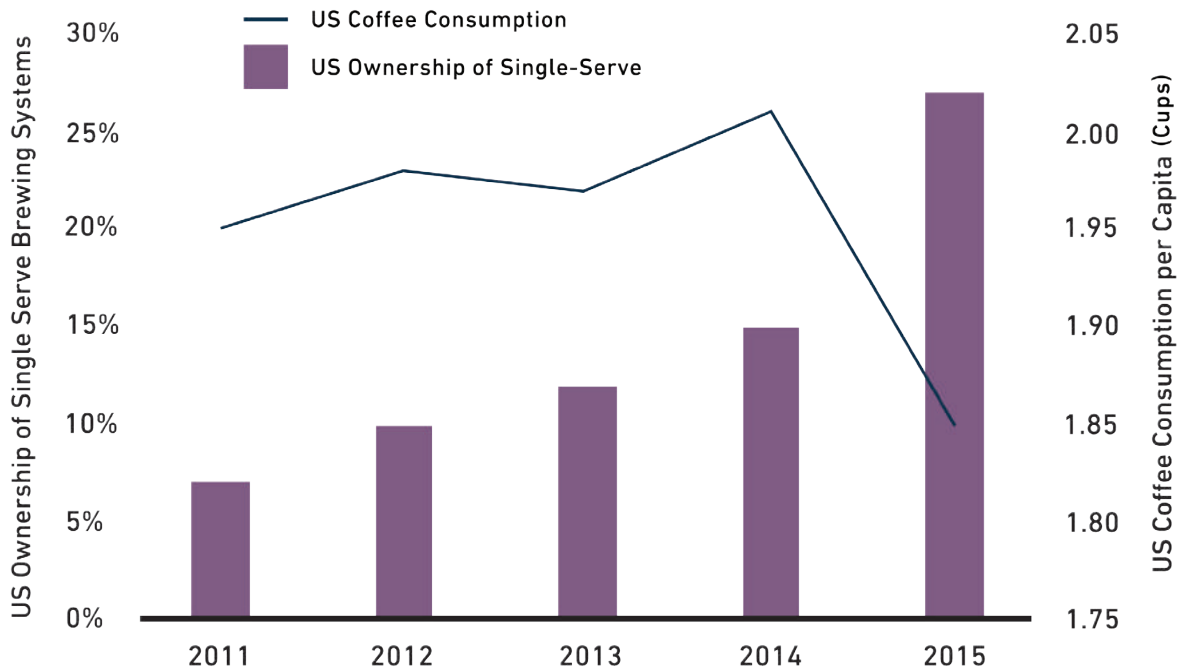
	Keurig	Tassimo	Nespresso
Selection	200+ Flavours ~ 11 different machines	75+ Flavours ~ 5 different machines	VertuoLine: 10 Flavours Original Line: 25 Flavours ~7 different machines
Distribution	Available through all common grocery retail channels	Available through all common grocery retail channels	Machines available at 250+ specialty houseware stores Pods available through: - Boutiques, Online, Phone Line
Market Share	53%	25%	4%
Price	\$0.50-\$0.83 per pod Machines: \$80-\$140	\$0.60-\$0.78 per pod Machines: \$80-\$140	\$0.75-\$1.10 per pod Machines: \$150-\$500

Sources: Company Websites & Time.com

Moreover, Keurig was recently acquired by JAB Holding Company (JAB), a German consumer goods conglomerate. JAB owns several coffee brands including a majority stake in Jacobs Douwe Egberts, whose product portfolio also includes Tassimo. With the acquisition, JAB is expected to consolidate Keurig's hold over the North American market and increase Keurig's European presence. JAB's corporate capabilities and strong industry portfolio pose a serious threat to Nespresso.

Nespresso's parent company Nestlé is also facing problems. Since 2011, sales growth in Nestlé's powdered and liquid beverage segment has slowed and has experienced its weakest volume growth in a decade over the first nine months of 2015. Powdered and liquid beverages represent the largest segment within Nestlé, constituting approximately 22% of the company's sales. Nespresso is Nestlé's fastest growing segment and accounts for 25% of Nestlé's coffee sales Additionally, Nespresso products currently have a 25% margin compared to Nestlé's overall margin of 15%, making this segment highly lucrative to the parent company. Given Nespresso's value within the Nestlé portfolio, a successful North American turnaround strategy will be paramount.

SINGLE-SERVE MARKET CONSUMPTION VS. TOTAL COFFEE CONSUMPTION



Source: Statista

Single-Serving up Opportunity

The coffee industry's single-serve segment, which consists of machines that brew single cups of coffee using pre-packaged pods, is currently the fastest growing segment and is expected to grow at five times the rate of the overall industry. Today, approximately 27% of American households own a single-cup brewer, compared to 7% of households in 2011. The growth of the market has led to intense international competition as market players compete to wear the "single-serve coffee crown".

In 2013, North America made up 45.4% of the $10.8B global single-serve market and was the fastest growing region in this market. North American consumers are increasingly switching from high-volume, low-quality coffee to specialized gourmet varieties such as espressos, lattes and cappuccinos. Per capita income growth in the US, anticipated to be 2.4% annually over the next five years, will likely further increase demand for premium single-serve coffee products. Given that gross margins in this segment are approximately 20% higher than traditional drip coffee, the premium single-serve market will be a major value driver for the overall industry.

Trouble Brewing

27 years ago, Nespresso pioneered and dominated the single-serve market in Europe. The five key success factors included the following:

1) A first-mover competitive advantage secured as the industry's pioneer

2) Machine and pod patents served as a barrier to potential entrants

3) Machines were less expensive than existing espresso machines that cost thousands of dollars

4) Strong product awareness in market achieved through business-to-business (B2B) sales

5) Unique marketing techniques that emotionalized its brand; the Nespresso Club provides delivery and personalization perks as well as a sense of exclusivity to all machine owners

When entering the North American market, Nespresso CEO Jean-Marc Duvoisin argued that Nespresso would face no competition as it would be creating a new single-serve market in North America as it did in Europe 27 years ago. Nespresso believed it could repeat its success by using the same advantages it had when pioneering the market in Europe. However, aside from extending Nespresso Club membership to North American customers, Nespresso did not actually possess these advantages when entering North America for the following reasons:

1) The single-serve market was already well-established with industry leaders (i.e. Keurig, Tassimo)

2) Patents on Nespresso product were meaningless as competitors already had proprietary designs

3) Nespresso products were more expensive than competitors' products

4) Nespresso established very few B2B partnerships within North America

Single-serve coffee cups cost about five times more than traditional coffee. Despite this fact, North Americans have bought into the efficiency, quality, accessibility and variety provided by single-serve systems. Out of these four buying criteria, Nespresso only delivers on efficiency and quality while its competitors, Keurig and Tassimo, provide brewing machines with dozens of pod options consisting of popular brands including Tim Horton's, Starbucks and McCafé. Conversely, Nespresso has pods that are only compatible with its own machines. Additionally, Keurig and Tassimo pods are widely available at all major grocery chains, whereas Nespresso's pods are exclusively available in its boutique shops, or through phone and online order. To top it off, Nespresso's machines start at $149, while Keurig's can be bought for as little as $79.

A Premium Blend

Despite its North American challenges, Nespresso still has a strong global presence and the resources of a market-leading parent company. Nespresso must realize it is no longer creating the single-serve market. Instead, it is competing within an existing market and must meet consumers' demands. As an authentically premium brand, Nespresso is positioned to capitalize on the North American single-serve market's growing demand for premiumisation. To minimize switching costs and to increase the accessibility of its products, Nespresso should create a sub-brand to release a line of pods compatible with Keurig machines (K-Cups) in North America. This tiered product-line strategy, popularized by retail fashion companies such as Armani, enables premium brands to expand its reach while preventing brand dilution. To drive demand for Nespresso K-Cups, the company should also boost brand awareness by creating more B2B partnerships in North America which were a key success factor in Europe.

In the single-serve market, Nespresso can compete through machines or through pods. To compete through machines, Nespresso must expand its product line to provide consumers with more variety in coffee types. Variety is a key buying criterion for North American consumers in single-serve machines, and a key success factor for Keurig and Tassimo. With dozens of product partnerships and hundreds of pod options, Keurig and Tassimo provide consumers with extensive variety. Conversely, Nespresso machines are only compatible with its own pods and flavours are limited. To better compete on variety, Nespresso could add more beverage options. However, this would require Nespresso to move away from its core competency in premium coffee and espressos. Another alternative is to pursue product partnerships and create compatible pods for its machines. However, this could dilute its brand equity since Nespresso would be unable to control the quality of the coffee coming out of its machines. Therefore, it is not advisable for Nespresso to compete through machines.

The second option is to compete through pods. Similar to the razor/razor blade business model, which involves two dependent products - one single purchase and the other a high-margin repeat purchase - the single-serve market generates most of its value through high margin repeat pod sales. Pod sales comprise of approximately 70% of revenues with machines sales making up the remainder. Increasing premiumisation of the market should translate to growing demand for Nespresso's products. The issue however, is that approximately 80% of consumers in the North American single-serve market already use a Keurig or Tassimo machine. Therefore, Nespresso should leverage the existing machine ecosystem in consumers' homes to increase pod penetration. Keurig's patents on its first-generation brewers and pods expired in 2012 and any competitor can now manufacture its own K-Cups for these machines. For Keurig's second generation brewers which require pods with a proprietary digital rights management code, Nespresso should secure licensing partnerships with Keurig by offering a competitive royalty rate and the opportunity to further diversify Keurig's pod portfolio. Releasing sub-branded K-Cups will allow Nespresso to access the 53% of single-serve coffee consumers who own a Keurig machine.

To prevent brand dilution of the original Nespresso line, Nespresso should communicate that its coffee is still best served through its own machines. Moreover, Nespresso can prioritize or restrict the release of new pod variations to its own machines before releasing K-Cup equivalents to protect the value of its own product line.

> *"Nespresso must realize it is no longer creating the single-serve market. Instead, it is competing within an existing market and must meet consumers' demands."*

A Grandé Market Opportunity

By maintaining its existing products and services (i.e. Nespresso Club), Nespresso can continue to serve the niche group of North American consumers who seek an exclusive premium espresso/coffee experience. By also improving product accessibility through Nespresso K-Cups, Nespresso can access a greater share of the market, specifically Keurig owners who are unlikely to purchase an entirely new single-serve machine despite increasingly premium coffee preferences. This strategy enables Nespresso to take advantage of Keurig's success in North America.

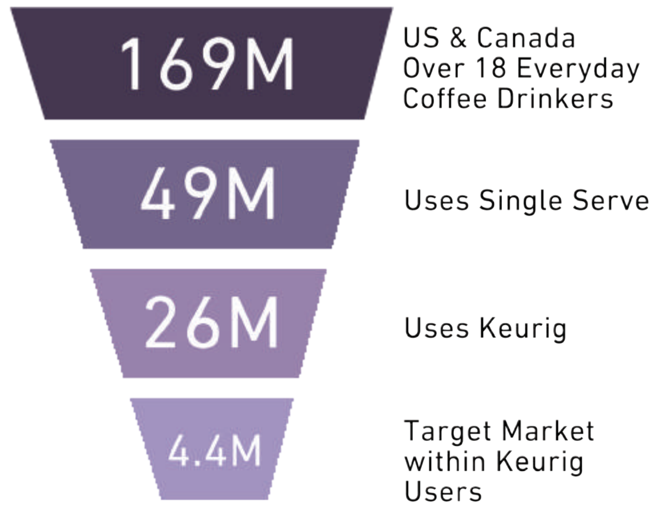
"This strategy enables Nespresso to take advantage of Keurig's success in North America."

Through this strategy, Nespresso will target a particular consumer segment coined by Fortune Magazine as HENRYs, also known as "High Earners Not Rich Yet". HENRYs consist of individuals who make $150,000 -250,000 per year and comprise of 21.3 million households in the US. Of Keurig's 26 million consumers, HENRYs comprise approximately 17.1% and are likely to exhibit increasingly premiumised purchasing preferences. As such, Nespresso should release its sub-branded K-Cups at a premium price point of $0.95/pod, below the price point of its regular $1.10/pod. Currently, the most expensive K-Cup is the Starbucks K-Cup at $0.92/pod with approximately 14% share amongst all Keurig owners. Assuming that Nespresso K-Cups can gain 4% share in the Keurig market, Nespresso can gain close to $400M in additional yearly revenue.

Brew2Business Partnerships

To drive demand, Nespresso must strengthen its brand equity and increase consumer awareness of its premium quality. To make its machines appeal to its target market, Nespresso should focus on B2B partnerships with North American luxury brands in the retail, vehicle, airline, restaurant and hospitality segments. When Nespresso launched in Europe, 57% of customers reported a time lag of one year between hearing about Nespresso and purchasing a machine. Considering this lag, partnering with luxury companies within these segments will expose Nespresso's target market to its products. Nespresso currently serves several international airlines including Swiss International Airlines, British Airways, Lufthansa and Cathay Pacific. However, it has no presence amongst North American airlines. Nespresso is also served in hundreds of high end hotels and restaurants within Europe but only a handful within North America. Therefore, its current focus should be to capture more B2B partnerships to increase brand awareness within North America. Such brand partnerships will be the most authentic way to convince consumers that Nespresso is the best premium product in the market.

NESPRESSO POD MARKET OPPORTUNITY



Source: IBR Analysis

To ensure that HENRYs are aware of this branding strategy, Nespresso should highlight its luxury partnerships through marketing initiatives. Additionally, a tactic used by several beverage companies involves releasing a product line in partnership with a high-end designer. Examples of this include Karl Lagerfeld and Marc Jacobs for Diet Coke and Missoni for San Pellegrino. Releasing K-Cups and pods with such designers will help Nespresso distinguish itself against other premium brands.

To Capp it Off

To maintain its leading position in the single-serve industry, Nespresso must succeed within the North American market. The growth of the premium single-serve market within North America is an important opportunity for Nespresso. By successfully distinguishing itself as the top premium brand for single-serve coffee and leveraging the ecosystem of competing machines, Nespresso can appeal to the evolving single-serve market in North America and successfully capture the single-serve coffee crown.

MATTEL TOYS: **SOLD IN CHINA**

Mattel can boost global toy sales by acquiring media content from the emerging markets.

Anthony Hui & Andrew Leung

For over 70 years, Mattel Inc. has been a global powerhouse in the toy industry. With a portfolio that includes several of America's most iconic brands and spans 150 countries, Mattel has captured 57% and 28% of the North American and international toy markets respectively. However, as the first quarter of 2016 draws to a close, Mattel faces financial and competitive challenges that threaten to destabilize its historically stable leadership position.

Mattel's profitability has been declining at an alarming rate over the past several years. Most recently, profits nosedived from $498.9M in 2014 to $369.4M in 2015. The company has also posted three consecutive years of declining sales. These poor financial results have decreased the company's share price from a peak of $46.99 in December 2013 to $24.98 in January 2016 and caused the resignation of CEO Bryan Stockton in January 2015. Conversely, Hasbro, Mattel's primary competitor, has seen an 8% increase in net earnings in 2015 alone. This has converted into an increase in the company's share price from $55.01 to $74.28 within the same span.

Trouble in the Playground

Given the high level of fixed selling costs, Mattel's profitability issues stem from the revenue decline of its core product offerings. Barbie has experienced double-digit revenue decreases over the past five years, with a 15% decline in 2015. The company lost the manufacturing rights to its Disney Princesses license, worth $500M in revenue, to Hasbro effective as of 2016. Fisher-Price has also been underperforming, posting a 12% revenue decline in 2014, amongst steady decreases over the past five years. Furthermore, other major Mattel business segments such as the corporation's "Entertainment" division, which consists of the Superman Man of Steel and CARS brands, has experienced double-digit declines over the past four quarters.

Changing Social Context

A distinct social shift towards a more progressive view of toys is one of the driving forces behind a disappointing performance from Mattel's girls segment. Parents have strongly advocated for more diversified Barbie images to match the qualities of the broader population. This has translated into a stagnation of the traditional Barbie product line and contributed to the stronger sales performance of newer female characters that emphasize female empowerment, including Disney Princesses such as Elsa and Anna from the new Frozen franchise.

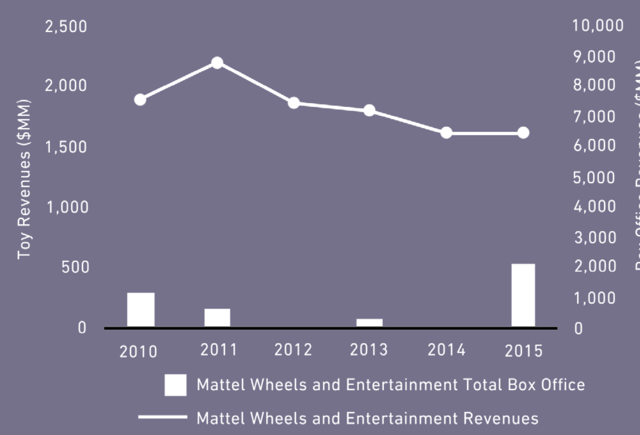
Rise of Technology

The rise of technology-based entertainment has shifted the overall direction of the toy industry, as consumers become exposed to new technologically advanced ways of interacting with entertainment. This new trend is encapsulated by a 13% growth in the Youth Electronics category of the US toy market during the first half of 2015, a rate that far outpaces any of the traditional toy categories.

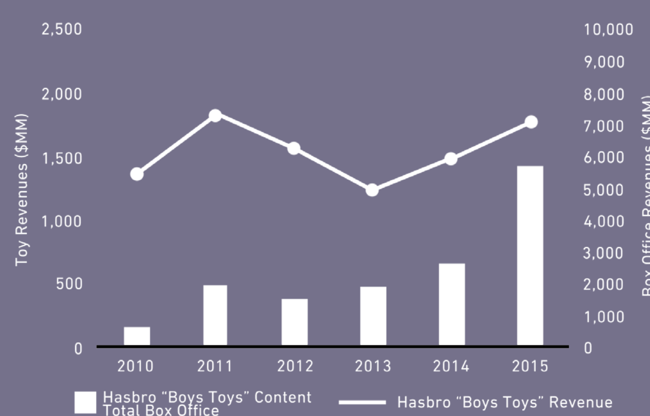
Role of Media Content Partnerships

Examining the correlation between the release of media content and associated merchandise sales illustrates the huge impact media content has on the toy industry. In the US, 22-29% of all toy sales are derived from licensed media content products. In 2014, Hasbro experienced a 20% increase in revenues for boys' toys, which includes licensed products from Marvel, Transformers, and Nerf, through the release of recent Marvel and Transformers films. Comparatively, Hasbro experienced a 22% decline in revenues in 2013 in the same category when no film or significant media content was released.

MATTEL TOY SALES & BOX OFFICE REVENUE



HASBRO TOY SALES & BOX OFFICE REVENUE



Sources: Mattel & Hasbro Annual Reports & Box Office Mojo

Rebuilding the Dollhouse

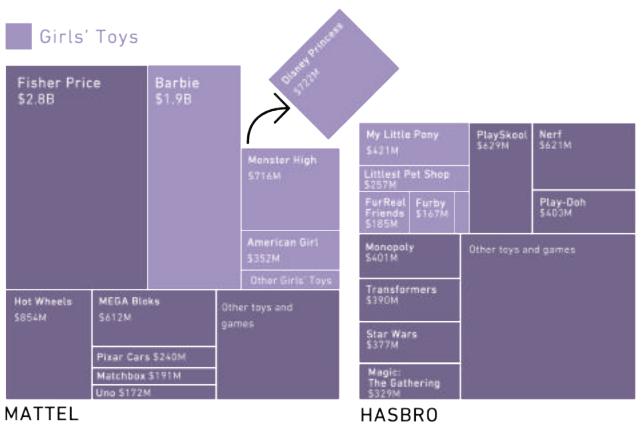
Mattel faces a crossroads with its strategic decisions moving forward. While Mattel's girls toys segment has been struggling due to Barbie's decline and the loss of the Disney Princess license, the company has made efforts to address changing social attitudes towards female body image in order to improve performance. In January 2016, Mattel released a new line of Barbie dolls with different body types, straying away from the doll's homogenous design. Mattel has also responded to the emergence of technological toys. In February 2015, Mattel partnered with Google to develop the View-Master Viewer DLX and in 2016 Q3, Mattel will release the Thingmaker, a 3D toy printer. While the success of Mattel's new girls toys and technology products remains to be seen, Mattel is addressing these two root causes. However, with media content being a major revenue driver for the industry, Mattel's underdeveloped media content capabilities will continue to contribute to its underperformance.

Bringing Toys to Life

The high rate of media content output from Hasbro's licensed franchises has driven growth in most of its product lines. The consistent release of films from licensed franchises such as Star Wars and Marvel generates steady demand for Hasbro toys. Comparatively, Mattel's media content partnerships have been less lucrative, with a decline in nearly all product lines due to less media content output from its partner franchises. This can be attributed to poor strategic decision-making, as Mattel's management has not prioritized acquiring and maintaining valuable franchise licenses.

In the North American market, Mattel has made recent efforts to improve its media content portfolio. Mattel is pursuing contracts with smaller media content players to cater to the long tail of the media-related toy segment. Its recent deal with the Halo video game franchise is an example of this. In addition, Mattel is creating content for its current product lines through its in-house film studio and media partnerships. This February, Mattel announced an agreement with Amazon Prime Video to produce media content for its American Girl brand, further reflecting the company's long tail media strategy.

MATTEL MEDIA PORTFOLIO BREAKDOWN



Source: Bloomberg

A New Hope

To take full advantage of media content's influence on demand, Mattel should pursue media content partnerships that strengthen its international presence. In the past year, the emerging market toy industries grew over 20% while the domestic US toy industry grew by 7%. However, Mattel is under-indexed in international markets with no individual country outside the US comprising of more than 6% of revenues in 2014. Given their rapid growth, there is considerable upside to be captured in emerging markets. Mattel should seek foreign licenses for popular media content within regional markets to complement its domestic portfolio.

While Mattel has an existing presence in emerging markets, it currently sells mostly American toys in these markets. Mattel should instead begin producing toys related to locally-produced media content. The largest toy industries in the emerging markets are China ($12B), India ($1.4B), and the Persian Gulf countries ($1.3B). While China's expected annual growth rate of 8.9% is lower than other emerging markets, the sheer size of the Chinese market compensates for this. Additionally, the average annual wage in China is also increasing 15% annually while total toy spending increased by 34% from 2010 to 2014.

In emerging markets, large portions of sales are generated through unofficial channels such as street markets. These unofficial sales channels generate difficulties in establishing relationships with retailers, leading to significant expansion barriers. Therefore, Mattel must also choose a market where entry and retailer management is feasible. An indicator of street vendor prevalence is the "Street Market Index" (SMI), which is measured by the market share of established "modern grocery retailers", over the total grocery market. China's low prevalence of street vendors is indicated by its SMI of 65%. Therefore, the Chinese toy industry has the optimal balance of emerging market growth potential, with comparatively fewer obstacles in retail management. This is important because Mattel relies heavily on traditional retailers for distribution as they make up 35% of global revenues.

Children's media in emerging markets is generally dominated by international content produced in US, Europe, and Japan. However, amongst emerging markets, China produces the largest amount of domestic content, with its $15.7B animation industry growing annually at 18.6%. China's film market is currently the second largest in the world and China's domestic films are starting to compete with popular foreign titles. The derivative market for these productions, of which over half are toys, grew by nearly 20% in 2014. With homegrown productions gaining popularity, the demand for toys associated with domestic media content is increasing. Mattel should ramp up investment in this market before competitors do, as Hasbro has also expressed interest in the Chinese market.

The entire Asia-Pacific market comprised 6.9% of Mattel's revenues in 2014. To take advantage of the Chinese market opportunity, Mattel will need to look for a film production company native to the country to develop a media-content partnership with. The target company must have a strong domestic brand presence and a proven track record of successful titles within the Chinese marketplace. The partner must also possess the necessary financial flexibility and capacity to execute films suitable for a toy manufacturing contract with Mattel. It is imperative that the partner company also have rights to popular domestic media characters.

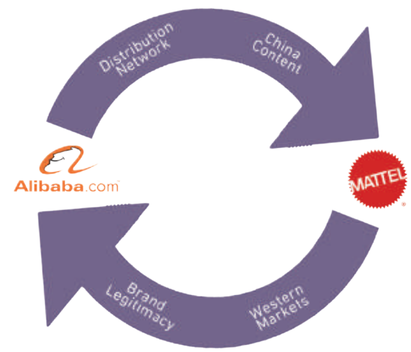
To China and Beyond

Alibaba Pictures (Alibaba), a subsidiary film company of Alibaba Group Holding Limited, satisfies the criteria of a successful media content partner. As the largest film company in China valued at $9.6B, and with involvement in the production of blockbusters such as Mission Impossible: Rogue Nation, Alibaba has a demonstrated the capacity to execute high-grossing films. Additionally, while not the producer, Alibaba distributed the Chinese animated film Little Door Gods, highlighting its experience with children-focused content.

While the collaboration with Alibaba could greatly benefit Mattel, there must be incentive for Alibaba to enter the partnership. Mattel provides industry-leading expertise in manufacturing and brand-building, neither of which are Alibaba's core competencies. Most importantly, Mattel's brand name provides added legitimacy to Alibaba's products. Alibaba has faced numerous lawsuits in regards to the distribution of counterfeit products, and has already spent $161M to combat this issue since 2013. With toys manufactured by Mattel, Alibaba can boost consumer confidence in its products.

The Chinese retail market is composed of numerous regional players as opposed to national big box stores, making it a highly fragmented market. In 2012, 33% of all US retail sales were conducted through the top 100 retailers by revenue. In China, the top 100 retailers by revenue accounted for only 9% of all retail sales.

BENEFITS OF THE MEDIA PARTNERSHIP



Source: IBR Analysis

Consequently, it is difficult for toy companies to secure all the distribution contracts required to comprehensively access the market. Therefore, in addition to its current presence in international big-box retailers in China, Mattel can increase market share by leveraging Alibaba's retail distribution network to enter smaller regional retailers and better service this highly fragmented market. Moreover, as the share of retail goods sold through e-commerce platforms continues to increase, a partnership with Alibaba will strategically position Mattel to address this trend.

To quantitatively estimate the benefit of this partnership to Mattel, net retail sales of media content associated toys were calculated. Based on prior Chinese movie-based merchandise sales data, the average toy sale to box office dollar ratio of $1.80 can be used to measure the merchandising potential of past major Chinese domestic films. Alibaba Pictures' "Journey to the West: Conquering The Demons" was the highest grossing film of 2013 in China, generating a total of $160.3M. This success suggests a potential $234.2M in toy merchandise revenue attributable to this movie for Mattel net of royalties and retailer margin. Given that this represents about 50% of the value of the recently lost Disney Princess license as well as Mattel's 2014 revenues in the entire Asia-Pacific region, a partnership with Alibaba Pictures presents a lucrative growth opportunity if expanded to Alibaba's line of successful films.

Continuing the Toy Story

The Chinese film industry is growing at a rapid pace, with total box office revenues expected to surpass those of the US within the decade. In addition to domestic success, Chinese productions are beginning to be exported overseas. Though Mattel has had success with household names like Batman and Toy Story, licensing opportunities for these brands are becoming increasingly scarce. With the importance of media content on toy sales, characters from China will be an excellent opportunity for Mattel to regain momentum in the global toy industry.

iCUSTOMIZE: APPLE'S NEXT FRONTIER

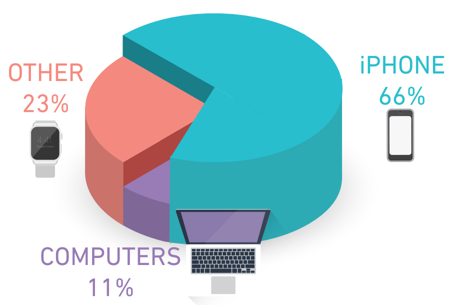
In order to combat slowing sales growth, Apple must leverage advances in 3D printing to increase product customization and ultimately commercialize the technology.

Nicole Miles & Mofeed Sawan

Wall Street is demanding a transformational new Apple product that will drive increases in the technology giant's valuation. At the tail end of Apple's high growth decade, speculation that its key markets are rapidly maturing has led to a 25% fall in share price within the past year. With no disruptive successor product in the pipeline, Apple must defend its core business while reinvesting proceeds in high-potential products.

Apple's current product strategy relies on significant improvements in reliability and processing speed to drive market share increases. However, recent stagnation in hardware innovation has caused saturation across the smartphone industry. In fact, Apple warned investors that iPhone sales growth will fall in 2016 for the first time since the device's launch in 2007. With over 66% of its revenues stemming from the iPhone, the impending maturation of the smartphone segment has caused Apple's status as the world's most valuable public firm to waver.

APPLE SALES BREAKDOWN



Source: Company Filings

With pressure from investors to diversify its product portfolio, rumours of Apple Cars, iTVs, and Virtual Reality headsets have surfaced. But, the solution to the company's smartphone woes is not product diversification, a strategy that would distract Apple's focus from its core revenue generator and dilute the brand's image. Instead, significant opportunity lies in focusing resources on spearheading the adoption of a disruptive new technology: 3D printing.

Accounting for 14% of global annual gross domestic product (GDP), or roughly $10T, the global manufacturing industry must react to consumers who demand customization now more than ever before. To capitalize on this trend and respond to threats to its core business, Apple should invest in implementing 3D printing at the end-stage of its value chain. Ultimately, Apple's next frontier should be to position itself as the leader of the upcoming mass-customization market by commercializing a consumer-friendly 3D printer. If pursued, this opportunity would generate rapid, sustainable growth while simultaneously revolutionizing the manner with which consumers interact with the products they purchase.

The Changing Face of Apple's Core Consumer

In 2000, Apple, guided by Steve Jobs, began to understand that technological innovation alone is an unsustainable competitive advantage. This realization inspired the company's core brand promise: sell dreams, not products. The Apple of today leverages this idea to deliver an unrivaled lifestyle of interconnectedness, convenience, and style. This strategy has allowed Apple to capture the loyalty of its consumers and sustain growth through a rapidly changing technology climate.

Now, Apple faces the challenge of understanding a more demanding consumer than it has ever encountered. The company's primary market is millennials aged 18-34, a segment to whom customization is becoming an increasingly important facet of the buying process. Bain & Company recently reported that over 25% of the millennial market demands customization. Most importantly, consumers who customize become more emotionally invested in the product and, thereby, loyal to the brand that created it. By introducing customization, participating companies can successfully drive demand to their products from rival offerings.

LG is seeking to capitalize on this trend through its release of the G5, the world's first modular phone. By creating substitute audio, camera, and battery expansion packs, the G5's modularity enables users to modify devices based on personal hardware and aesthetic preferences. Google, having also detected this opportunity, is poised to enter the customizable smartphone segment with their own modular initiative, 'Project Ara', set to launch in 2016. In contrast, Apple is responding to these competitors by increasing its stock-keeping units (SKUs) to offer more variety to consumers. The company introduced eight new models of the iPhone and over 50 Apple Watch combinations in 2015.

Technology companies trending towards developing more fashionable products with shorter lifecycles is a trend mirrored in the fashion industry. In particular, Nike has proven that the integration of fashion and technology is increasingly demanded by customers. With the launch of NikeID, Nike's customizable shoes, to the mass market in 2012, the company has seen direct-to-consumer sales increase by 30%.

With technology becoming increasingly fashionable and vice versa, consumers are demanding game-changing variety, customization, and ease of integration from all product purchases. However, Apple's complex value chain is inherently inflexible and unable to respond to this demand; as a result, customization will come at a cost.

A New Supply Chain

As Apple increases the number of products it stocks, they must simultaneously adjust their supply chain. Traditional manufacturing is built off of economies of scale; as a result, mass customization is by definition mismatched with this format as it increases costs and lead times.

3D printing, or the production of customized products using material inputs and a computer-aided design (CAD) file, is increasingly looked upon as a method of disrupting this rigid manufacturing process. This is because 3D printing's unique value proposition lies in product customization as users can change the aesthetics of their product by merely altering its design file. As a result, 3D printing would enable mass customization while circumventing the increased lead times inherent in changing mass manufacturing processes.

By incorporating 3D printing into the end stage of its value chain, Apple can economically customize the size and aesthetics of its products after critical hardware elements have been created. The question then becomes: how can the company encourage mass market acceptance of this disruptive innovation?

Enabling iDevice Customization: a Mass Market Use for 3D Printing

In early 2001, Apple was challenged by Steve Jobs to expand into the portable music industry. But, the company faced a critical barrier: how could customers store, access, and download digital music files? Shortly thereafter, Apple boldly transformed the music distribution industry by launching iTunes for Macintosh computers. The company then leveraged this existing base of content to launch the iPod with resounding success.

Apple can apply a similar market entry strategy to enable device customization by creating the 3D printing industry's first standardized platform for CAD file distribution. Just as consumers did not have a widely accepted method to store digital files prior to the launch of iTunes, there is currently no mass-adopted centralized CAD file storage system that connects the average user with printable, customizable designs. This absence of legitimacy in CAD file distribution is a key reason for low adoption rates because it prevents consumers from easily integrating 3D printing into their daily lives.

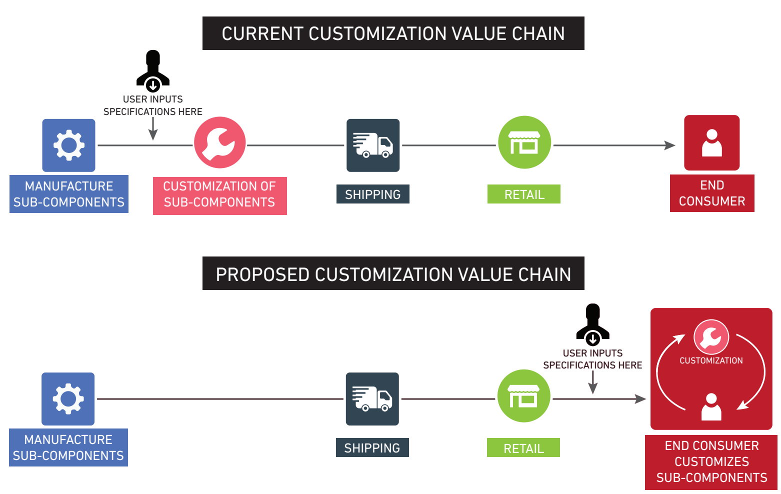
Apple faces a significant challenge: it must create a software that demystifies accessing, creating, and editing CAD files for the average consumer. In the short term, this platform should be populated with unique iDevice casing shapes, wristbands, and designs that customers could browse, purchase, and print in an Apple retail store. In this manner, consumers would be able to seamlessly customize and re-customize nearly every visible aspect of their device with the click of a button.

With the market for customization rapidly growing, Apple can create the first mass market use case for 3D printing through iDevice customization. Thereafter, the company can leverage its established capabilities to enter a more lucrative and disruptive segment: consumer-oriented 3D printers.

3D Printing Today

Despite introduction in the 1980s, the 3D printing industry's high growth potential is inhibited by poor user experience leading to low adoption in the consumer-oriented

CURRENT & PROPOSED APPLE CUSTOMIZATION VALUE CHAIN



Source: IBR Analysis

segment. Although leading players have recently begun to shift into consumer markets, affordable units are not yet advanced enough to serve more than a hobbyist segment. Consequently, feasible 3D printing applications are limited to product design and prototyping in the manufacturing sector. 3D printing industry is dominated by two players representing 52% of sales: Stratasys and 3D Systems. Collectively, they have a market capitalization of less than $3B and annual R&D spending of less than $157M.

The segment still suffers from two issues: a lack of standardization in the 3D printing ecosystem and poor user experience on both the software and hardware fronts. No major player has committed significant enough capital to refine 3D printing technology into a consumer-facing device with a low learning curve. Moreover, existing online CAD-file repositories suffer from low usability for the average consumer or an ill-defined model that fails to prevent copyright breaches. Though the industry has vast potential to disrupt global manufacturing, a lack of consumer-oriented innovation stands in its way.

This critical barrier to growth can be overcome by Apple's extensive resources and proven track record developing exceptional user interfaces. In fact, the company's recently launched Apple Pencil and 3D Touch technology can be leveraged to seamlessly design and manipulate 3D models via touchscreen. Moreover, perhaps responding to rising interest in the 3D printing industry, Apple patented a consumer-oriented 3D printer in 2015.

Ultimately, Apple is uniquely positioned to capitalize on the 3D printing ecosystem by developing an accessible CAD file repository, integrating 3D printing into its value chain to create a use case for the technology, and, finally, commercializing a consumer-friendly 3D printer.

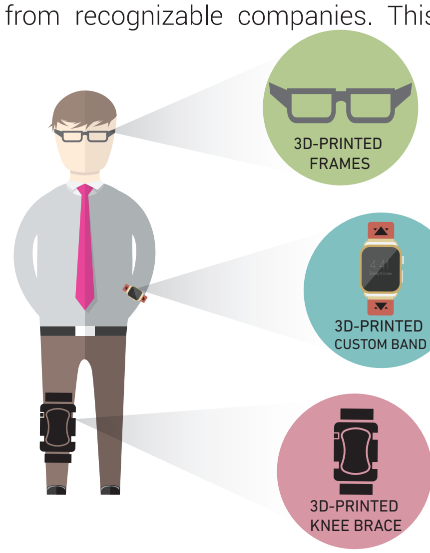
Apple's Next Frontier: Designing the Future

In a world that is constantly seeking customization in nearly every segment, 3D printers are the solution to consumers' dissatisfaction with mass manufactured products. With a 3D printer, consumers can print customized retail, accessory, home appliance, and replacement products in-home.

Though incorporating 3D printing into Apple's value chain is a compelling short-term solution, it will ultimately not enable the company to capitalize on its brand promise: leveraging its product suite to deliver a highly interconnected, customizable, and convenient experience to its customers. As the mass market responds to millennials' increasing demand for customization, Apple can act immediately to position itself as the long-term leader of this segment.

The most scalable and economically viable solution for enabling this customization is through the commercialization of 3D printers. This addition to Apple's product suite can be achieved by leveraging its iTunes-esque CAD file repository to collaborate with major brands in the fashion and retail industry. As with iTunes, Apple must negotiate with the fashion, retail, and consumer packaged goods segments to develop a significant base of content from recognizable companies. This service would then act as a repository for 3D models generated by brands and artists alike, with consumers purchasing the models and printing them at home using Apple's machine.

POTENTIAL CONSUMER APPLICATIONS OF 3D PRINTING



Source: IBR Analysis

Diversifying with 3D Printing

Market maturation indicates that Apple must both implement a short-term strategy to reverse stagnation while, in the long-term, diversify its product line away from affected segments. By spearheading the development of the product customization market, Apple can revolutionize traditional manufacturing. In addition to capturing immediate-term revenue increases, pioneering this technology will enable the company to modernize its approach to developing a symbiotic ecosystem of technological efficiency for the mass market.

A NEW COURSE FOR ONLINE EDUCATION

Coursera needs to offer accredited degrees and original content to become the leader in online higher education.

Zach Hamel & Emily Rowe

Over the past decade, the internet has created a new channel to distribute knowledge on an unlimited range of topics to a wide audience at a fraction of the cost of a traditional lecture. However, it has yet to radically disrupt the education system as previously predicted.

Universities and institutions have been slow to embrace the internet's new digital learning channels. Consequently, online educational companies have begun to fill a gap in the market by helping institutions deliver their content online, either through distance education programs or by incorporating content into their classroom curriculum. The main players in this B2B space are 2U, Deltak, and Embanet.

More commonly, however, are B2C companies such as Udemy, Udacity, edX, Khan Academy, and Coursera, who offer what are referred to as massive open online courses, or MOOCs. MOOCs are courses of study offered over the internet, often free of charge, to a massive audience of online learners with close to zero marginal cost. In 2010, Bill Gates stated that, "Five years from now on the web for free you'll be able to find the best lectures in the world. It will be better than any university." However, as of 2014, only 3% of survey respondents have reported to have taken a MOOC. While both these B2B and B2C companies have begun to grow the popularity of online learning, no one has yet to effectively disrupt the education industry.

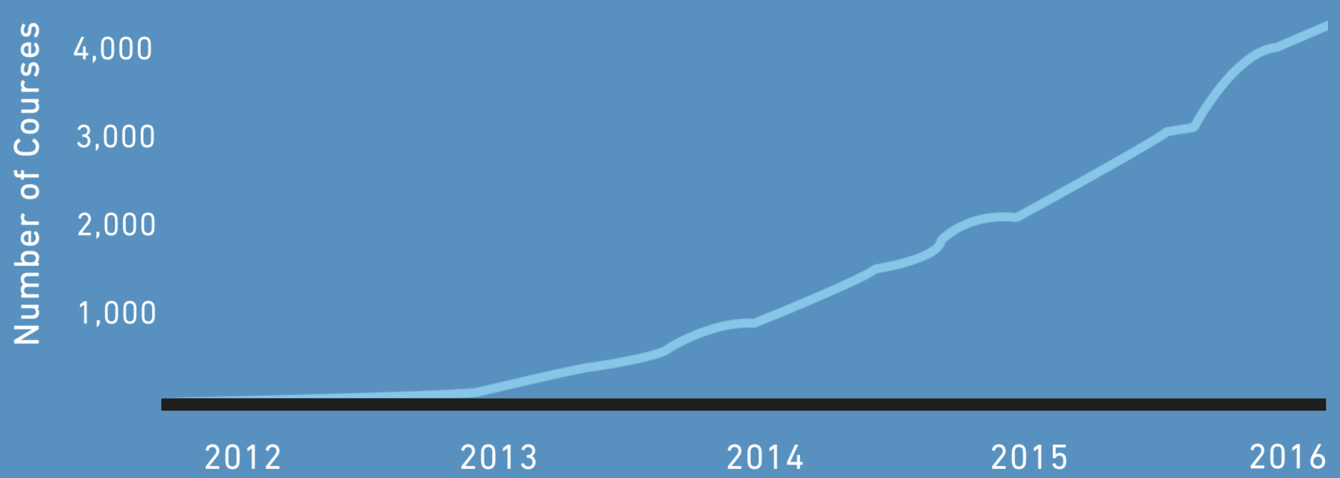
Coursera's Uncertain Future

Over the past five years, numerous companies have emerged with the goal of being the leader in online education, but Coursera seems to rise above the rest. With over 17 million users, Coursera is an online education platform that partners with top universities and organizations to provide free online courses. However, despite being a leading MOOC provider in 28 countries with 138 institutional partners, Coursera lacks a sustainable competitive advantage and a strong revenue model to drive its success. Most courses offered on its site can be taken for free, with users opting in to purchase a certificate of completion for $40-$110 USD. This is currently the only significant source of revenue for the company. However, there is a clear discrepancy between the price and value for these certificates; they lack the credibility of other degree granting educational institutions and are not recognized credits.

Right now, Coursera walks the line between being an educational institution, by offering high quality and structured classes, and a website of special interest videos, similar to Khan Academy, by offering its content free and unaccredited. While its Series C raising of $60M in 2015 brought Coursera some breathing room, it is unclear whether the company will be able to secure further funding runway unless it starts showing increased success with its monetization model. Additionally, its investors include John Doerr of KPCB, an education reform advocate who sits on Coursera's Board of Directors, who would be interested in the company delivering on its social purpose.

With increasing competition in the market, Coursera's unfocused business model will underperform unless it can find a new source of value and create a model that is sustainable, profitable, and truly impacts education.

YEARLY GROWTH OF NUMBER OF MOOCS



Source: Class Central

B2B or B2C?

As Coursera strives to establish itself as the dominant player in the online education industry, it must decide exactly what position it wants to play in the market. With a market that is continually seeing new players enter the space, it is critical to find a clear position and competitive advantage.

B2B

In order to drive profitability in the future, one business model Coursera could pursue is to transition to the B2B market, becoming an enterprise software and course developer for universities. In this model, Coursera would leverage its platform by leasing it to universities while developing engaging interactive digital content for them. Revenue streams would be set up as a percentage of fees from enrolled students to ensure recurring earnings. Additionally, fees for developing and setting up courses could be charged. As online education becomes more attractive for students, institutions are realizing they lack the time, expertise, and technology needed to provide a quality learning opportunity for their students online.

While a B2B strategy provides a quick source of cash in the short term, it does not provide Coursera with a sustainable competitive advantage. Once institutions have gained expertise from the initial partnership with Coursera, they will no longer require further services. A crowded market full of players such as 2U, that have a greater focus on technology and a bigger brand in the space, pose a threat if Coursera fully commits to only being a B2B player.

B2C

The alternative model for Coursera is to pursue a B2C market strategy by becoming a degree granting institution and hosting both content from partners and self-created content. Currently, Coursera leans toward a B2C strategy, but the content it provides is created by third party institutions. Further, Coursera does not grant degrees. Studies show that the top concerns of students today are the affordability and quality of education and they see online education as a convenient and viable alternative to traditional college degrees, which are significantly more expensive. Coursera's platform could meet this criteria by offering highly diverse course offerings with the highest quality content from top institutions and faculty while being convenient, user friendly, and affordable. This brand is something they could capitalize on in the future to create their own Coursera degrees. In the meantime, Coursera can leverage its partnerships with institutions to source content from the "creators" and package it into "Coursera degrees". Due to its ability to distribute one course to such a wide audience, it is estimated that Coursera could offer content at a lower cost per active student. This would allow Coursera to offer accredited courses at a significantly discounted price while maintaining a sizeable margin. This differs from the "Signature Track" courses currently offered, which are not accredited and therefore less valuable for students if their goals are more than just casual learning. Further, online education programs have been shown in studies to offer similar or superior student outcomes while offering more flexibility and being delivered at a lower cost. Coursera could be the alternative to a traditional degree and help meet the demands of students for more affordable education.

Overall, pursuing a strong B2C strategy by developing accredited degrees and content in-house aligns well with the shifting trends in education, market demands, and the capabilities of Coursera.

> *"Coursera will need to build its brand equity both to attract consumers and employers who will be hiring its graduates."*

Graduating the Coursera Degree

The long-term path of Coursera should be to follow a B2C strategy with the goal of being the leader in online higher education through online degrees. This will be accomplished by providing its own accredited Coursera degrees and original content at a fraction of the traditional cost. To get there, Coursera will need to engage in accreditation, brand building, and corporate partnerships that will help establish it as a leading player.

Coursera is currently not accredited and lacks the experience and brand equity to become an accredited online degree institution immediately. Therefore, Coursera must work to get the courses it builds with institutions accredited, for example through the Distance Education Accrediting Commission (DEAC). In this way, it will begin to build a reputation for being an alternative to getting a credit from a college. This will increase the value of Coursera's paid courses and consumers' willingness to pay. However, accreditation is not the most challenging component for Coursera. Once being able to legally offer degrees, Coursera will need to build its brand equity both to attract consumers and employers who will be hiring its graduates.

In the short-term, Coursera should expand its creation of co-branded content similar to its current IMBA program with the University of Illinois. Co-branded content will help tie Coursera's name with the high quality reputation of its top institutional partners, helping to grow Coursera's brand equity.

Once Coursera has built a portfolio of accredited courses with the institutions it works with, and has established a strong brand for high quality education, it can begin packaging these courses into an accredited "Coursera degree". The first Coursera degrees can be packages of complementary specializations. The courses themselves will be content from a variety of leading institutions, but students will graduate with a Coursera degree. These degrees will not compete with Coursera's institutional partners as they will not directly target the students of top tier universities. These top universities offer extracurricular activities, extensive alumni networks, and other value that Coursera does not offer. Instead, Coursera will be disrupting less established institutions, community colleges, and other educational providers. Students that go to these schools do not do so for the brand name, but rather to get a degree and the learning it can provide. Coursera will be a viable replacement by offering all the same benefits for a fraction of the cost. For its institutional partners, Coursera will be providing an ancillary revenue stream through a percentage of revenues and profit consistent with its current agreements, while not threatening its partner institutions' core businesses.

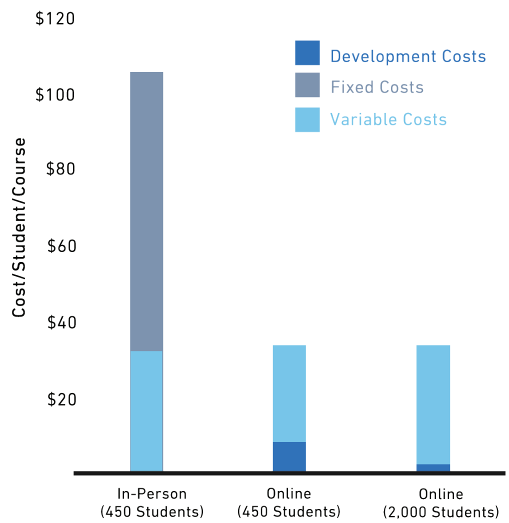
In addition to building a reputation for potential students, Coursera will need to build its brand with employers that would consider hiring graduates of its platform. To begin with, Coursera should leverage its network of investors: venture capital firms such as New Enterprise Associates who have hundreds of startups and public companies that are active or former portfolio companies. These partners can be matched with students for the more hands-on capstone projects, allowing students to gain practical experience and network with potential employers. The first degree program that should be offered by Coursera should be in the field of Computer Science or Data Management, where employers are more open to non-traditional educational routes such as coding boot-camps and other online training. Following this, Coursera can begin to expand to other fields.

A Coursera Original

Finally, in the long-run, as Netflix has recently done, Coursera can begin to build its own original content, once its brand is well known. At this point, it can start incorporating these Coursera classes into its current offered degrees and can eventually begin to offer fully accredited degrees using only Coursera content. Coursera is uniquely positioned to offer high-quality native courses through its ability to leverage user data it has collected through its previous offerings. Just as Netflix has used its viewership data to produce shows highly aligned with its audience, Coursera has the ability to integrate course completion data to design highly effective courses. With such a large user base, creating its own original content will allow Coursera to truly create a competitive advantage in the market that no new online platform will be able to compete with.

Within the next decade, education will be more modular, with students being able to pick and choose their course content from a global selection of schools and professors. Coursera will be able to offer top professors larger audiences and global distribution of their work. Course creation will lie with those that have a core competency in developing and delivering content that can be easily accessed by users. While this poses a threat to traditional institutions, Coursera is in a position to be a leader in this new market by offering accredited degrees with a range of high quality content at a reasonable price.

COST COMPARISON BETWEEN COURSERA VS. REGULAR INSTITUTION COURSE



Source: IBR Analysis

"Within the next decade, education will be more modular, with students being able to pick and choose their course content from a global selection of schools and professors."

YAHOO'S **NEXT BIG BET**

Yahoo's legacy business segments lack growth potential, thus they should look to fuel future growth through their fantasy sports platform.

Terence Chen & Calvin Russell

Making a Fantasy, a Reality

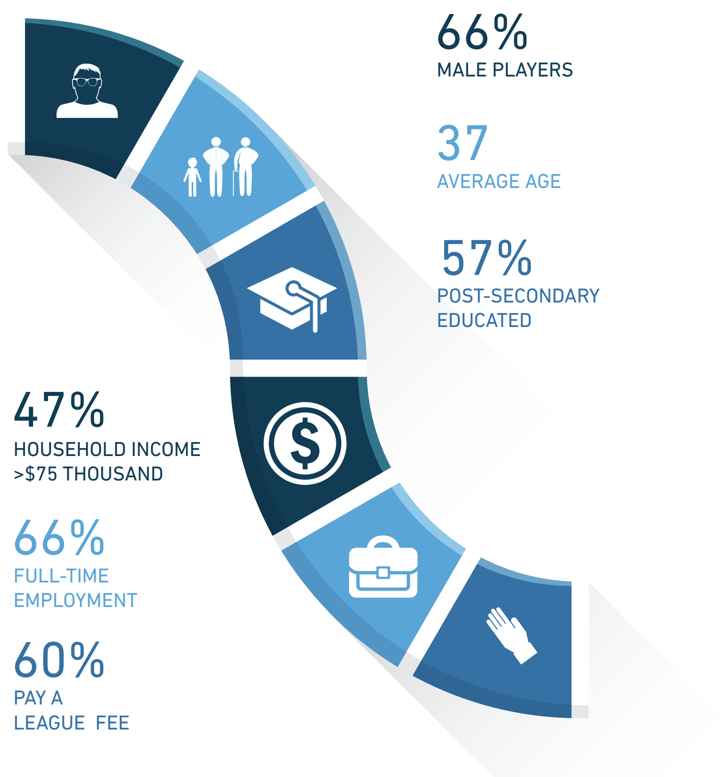
Fantasy sports have grown to become wildly popular in North America, with over 56.8 millions players, and 2015 revenues of $26B. Fantasy sports revenue is also expected to continue to grow by 41% over the next five years. This massive growth has been driven by rising disposable income, greater accessibility to the internet and mobile devices, and a higher level of engagement with sports - from improved highlights to increased interactions with players through social media platforms. Currently, the fantasy sports market is dominated by platforms hosted by three companies: Yahoo, CBS, and ESPN. These three companies have already begun to monetize their services through taking percentage cuts off of each user's entry price; however, there is an untapped opportunity to capture a large and unprecedented revenue stream within the industry. If one of the three platforms can effectively implement microtransactions, a surging business model within the mobile world, they can come to dominate the market.

Yahoo Sports, CBS, and ESPN operate platforms which offer a diverse range of fantasy sports services. In order to remain successful, these platforms must be user-friendly, feature a simple and attractive interface, and offer in-depth support. Users also expect live scoring that displays statistics immediately, as well as informative and entertaining articles produced by a dedicated team of professional fantasy writers. Furthermore, a dynamic user experience also plays a large part in platform selection with customization being valued highly by players.

Making Micro Moves

Microtransactions are small fees that users can pay to purchase virtual goods or services, typically within mobile applications. Users can buy anything from a better sword in a game, to a dashboard skin in order to enhance their online experience. These transactions have grown to become a core source of profitability for mobile apps. In 2014, they made up over 79% of combined revenue within the US Google Play and iOS App stores, a substantial increase

INDUSTRY AT A GLANCE



Source: Fantasy Sports Trade Association

from 46% in 2012. Microtransactions help compensate for the large upfront investments required to develop software applications and help the developer breakeven. Furthermore, they enhance profitability by providing stable, high margin revenues beyond direct sales. However, microtransactions have also been a source of skepticism, as they allow developers to manipulate users into either paying to be successful, or overpaying for features that should already be provided. Although the potential to drive high revenues exists, not all microtransactions foster equity and poor implementation can result in disastrous implications for a company's revenues and brand image.

There are three underlying similarities that have been observed in successful microtransaction business models. First, the supplementary features must be priced appropriately while adding adequate value to persuade users to make the purchase. Second, the microtransactions must not unbalance the game for non-paying users. Although the purchase will provide an incremental benefit or feature, the benefit must not be so great as to deter non-paying users from participating as a whole. Finally, the features must evoke a level of competition or jealousy from other users to incentivize the purchase of the microtransaction. If all three criteria are satisfied, the company will be able to improve profitability and expand their user base to more casual players who seek to gain any advantage they can.

Yahoo's Entrance

Yahoo Sports' portfolio of services currently includes fantasy sports, editorial reporting, real-time scores, breaking news, and coverage of large events and premium college sports. Yahoo launched a fantasy sports app in 2014 that has helped propel them to market leadership, with 18% of the total fantasy sports market. Additionally in July 2015, they introduced a daily fantasy sports alternative that brought real cash payouts, competing with DraftKings and Fanduel. Although the daily fantasy sports market has been lucrative, recent regulatory opposition from the US government labelling them as illegal gambling sources threatens the longevity of this market. This regulatory hurdle reinforces the need for Yahoo to maintain market leadership by seeking alternative revenue opportunities within the traditional seasonal fantasy sports industry, rather than placing their attention on the daily fantasy sports market. Microtransactions will not only increase per user spending, but will also help mitigate the loss of revenue from the daily fantasy segment. Additionally, Yahoo already has the mobile expertise to successfully implement microtransactions on their fantasy platforms.

Unlocking the Game

Similar to the microtransactions currently used in gaming and social media applications, fantasy sports microtransactions can be characterized as either product or service-based, both of which behave similarly. A user purchases in-house currency or tokens from Yahoo which can be spent at their leisure throughout the various sporting seasons.

First, Yahoo should provide the option to purchase an automatic bench-setting service. Typical fantasy sports platforms require users to continually swap players in and out of their starting lineups according to a weekly matchup, as well as sporadically to account for injuries and suspensions. The current system requires regular user upkeep, the absence of which leads to inactive rosters positions and the loss of matches. With automatic bench-setting, players will spend their currency to have Yahoo automatically correct these oversights before they occur.

Next, Yahoo should also offer more in-depth analyses, such as by incorporating simulated game results and more strategic match-up details to attract users. Extensive game analyses are available online; however, in depth research is either time consuming to find or costly for users who utilize subscription-based websites. Yahoo should delegate a portion of its current writing staff to focus solely on microtransaction-enabled content. Alternatively, Yahoo can consolidate information from free websites scattered throughout the internet for the convenience of users. In a manner similar to the website Kayak displaying competitive airfares, Yahoo can display competing viewpoints from different professionals and sporting websites. This content would be accessible in part, or for a limited time frame, through microtransactions.

MICROTRANSACTIONS IN GAMING

Source: Business Insider

Finally, Yahoo should supplement its drafting system by providing additional insight beyond traditional pre-season rankings. In this scenario, tokens would be used to improve the user's team at the beginning of the season, by providing insights tailored to their preferences. Normally, players are ranked by position regardless of an individual's drafting strategy. Yahoo can therefore capitalize on the consumer spending on "draft kits", which are comprehensive primers containing analyst rankings and projections that aim to aid users in the drafting process.

Alternatively, Yahoo could also implement microtransactions by providing access to on-demand, personalized advice from fantasy sports professionals through a partnership with Rotowire, or by contracting top performing fantasy users from their own platform. Rotowire is a subscription-based website which charges $79.99 for an annual premium subscription to their fantasy database. Although in-house management of this option is not recommended due to high human capital requirements, a partnership with Rotowire could produce an attractive service-based microtransaction. Alternatively, Yahoo can outsource the advice from league leaders on their own platform. Users would spend tokens to ask the highest ranked fantasy players for advice, the advisors would receive payment, with Yahoo capturing from a transaction fee.

These recommendations align with the necessary criteria to create successful microtransactions, including: appropriate pricing, performance equality amongst players and adding to the element of competition. Foremostly, the features are desirable as they increase the user's perceived ability to improve their overall fantasy performance. However, positive results are not guaranteed and thus equality is maintained, and tokens can be sold at a price that balances supply and demand.

Adopting a Micro Strategy

Microtransactions give Yahoo an opportunity to obtain a first mover advantage and capitalize on the rapid growth in the mobile and fantasy sports industry. Because these payments are so small, they are especially tempting for users, as they do not feel the risk associated with larger investments in subscription-based websites.

Currently, it is forecast that the average fantasy player above 18 years of age will spend approximately $45 annually on fantasy draft kits and informational databases. Taking into account the spending pattern differences throughout North America, it is predicted that a total of 24 million players will pay for fantasy tools each year, producing a total fantasy sports ancillary products industry revenue of $1.1B. With Yahoo Sports' current 18% market share, the endeavor should result in an increase in revenue between $44 and $111M dollars annually. Assuming a profit margin of 50%, similar to microtransactions in the gaming industry, Yahoo Sports can potentially realize an increase in yearly steady-state profits of between $22 and $55M. Considering that Yahoo had a net loss in 2015, microtransactions is a worthwhile endeavour

Microtransactions are also cost efficient for Yahoo. The direct variable costs associated with selling a virtual good is miniscule, the majority of which comes from the cost of billing. The largest cost that Yahoo would bear is the upfront costs in software design as well as setup costs for infrastructure and transaction data storage. Fortunately, Yahoo's size and established online infrastructure should be sufficient to handle the increased data and transaction information that this strategy requires and therefore it is negligible. Development costs on the other hand could be significant and are harder to estimate. However, the proposed strategies would be add-on features as opposed to outright application development. For this reason, the costs are predicted to be small in comparison to the realizable returns from the project as a whole.

Levelling the Playing Field

If microtransactions are successful on Yahoo's fantasy platform, there is potential that CBS, ESPN or another competitor will attempt a similar model. This highlights the importance of a first mover advantage for a number of reasons.

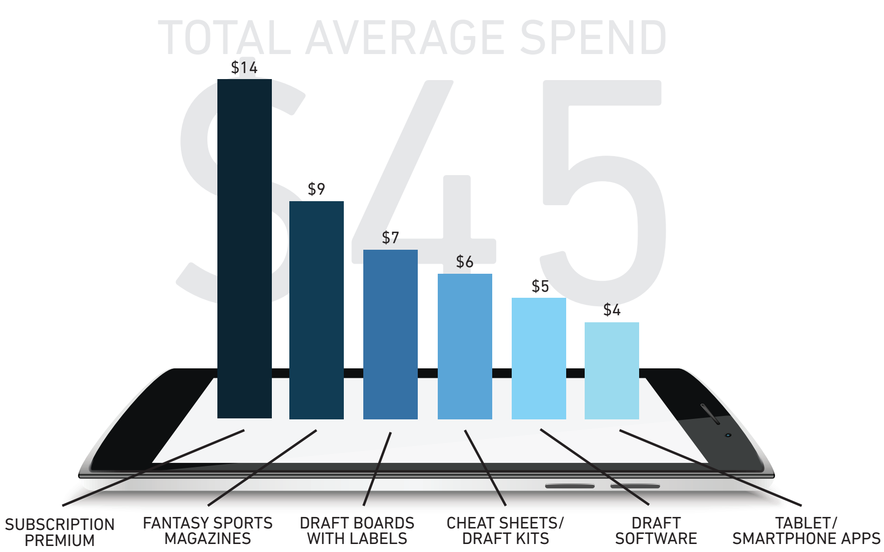
First, if Yahoo is able to secure an exclusive contract or partnership with Rotowire, it would be difficult for competitors to directly emulate this strategy as Rotowire is the only major fantasy subscription service database. Alternatively, if Yahoo can incentivize their own users to act as advisors on microtransactions, users from other platforms will switch to Yahoo to take advantage not only of microtransaction products, but also the potential lucrative opportunities. Furthermore, there will be increased disincentive to leave Yahoo once they become users because the tokens purchased or earned through Yahoo would not be transferable to ESPN and CBS.

Continuing the Fantasy

Despite Yahoo's current position as a leading fantasy sports platform, they have yet to fully capitalize on the rapidly growing industry. A new opportunity for Yahoo, in the form of microtransactions, can change the way the fantasy sports industry operates. Microtransactions will allow Yahoo to bolster their revenue streams in addition to solidifying their status as the leading innovator in fantasy sports. Yahoo's new monetization strategy will serve as a defensible competitive advantage and prove that good things really do come in micro-sized packages.

"Yahoo Sports can potentially realize an increase in yearly steady-state profits of between $22 and $55M."

AVERAGE ANNUAL SPENDING PER FANTASY SPORTS PLAYER



Source: Fantasy Sports Trade Association

SYMANTEC: HACKING THE ENTERPRISE SECURITY SPACE

Symantec can innovate the online security industry by incorporating machine learning into their enterprise security products.

Christopher Nguyen & Samantha Wu

Security breaches are increasing in both frequency and severity. Last winter, Anthem Blue Cross, a major US health insurance company, experienced a cyber attack on their IT system which compromised the personal information of 80 million Americans. This breach was one of 888 reported breaches in the first half of 2015, with each breach costing almost $4M. With the rise of e-commerce, mobile applications, and cloud-based computing, there is a greater need to protect sensitive data. These trends are driving cybersecurity spending, which is expected to grow at a CAGR of 9.7% over the next five years.

The Wild Wild Web

In the past, antiviruses functioned on a signature detection basis. A virus signature is like a fingerprint: it can be used to detect and identify specific viruses. The process worked by having infected systems send malware details to the antivirus provider's in-house lab. Data scientists then investigated the nature of the virus to determine its unique signature that could be used to ensure such an attack could be prevented in the future. The signature would then be uploaded onto a database that all licensed products would use to compare suspicious files against to determine whether a threat exists. Through this 'learn by failure' method, only one in hundreds of thousands computers would be compromised before a certain malware would no longer be effective.

This method had been effective in the 2000s, but cyber-attacks have become increasingly sophisticated. Comparing a potential virus against a database of previous attacks is now ineffective for three reasons:

1) The process is slow and malware may not be detected prior to entering the system

2) The evolution of malware makes it so that protection against past attacks is no longer effective against future threats

3) The process is prone to human error

Today, over 80% of large companies are targeted by cyber criminals. Ponemon Institute, a security research company, found that security firms receive over 90 serious threats daily. On any given day, the average anti-virus system is unable to pick up on 50% of new malwares, showing a significant lag time in anti-virus vendors responding to emerging threats.

Consequently, companies are moving towards reactionary mechanisms where systems are protected and damage is mitigated in the event of an attack. Companies like FireEye are developing system analytic software to protect systems by limiting the amount of information that certain malware can access.

Symantec's Weakening Defences

In response to the changing cybersecurity landscape and shrinking top line figures, Symantec announced its strategy in October 2014 to exit from information management in order to streamline operations and focus on its other business segments. Symantec needs to re-establish its market leadership by using the proceeds of its divestiture to organically develop its two other business areas - consumer security and enterprise security. Post divestiture, Symantec consumer security and enterprise security will account for 47% and 53% of revenues respectively.

As a whole, Symantec is the largest player in the cybersecurity space with an estimated 17.2% market share in 2014. However, Symantec's market position is eroding, with market share down 1.3% from 18.5% in the prior year due to product lags and discontinuations. Symantec faces competition from two fronts: start-ups like Tanium and Menlo Security that are trying to solve niche problems, and diverse technology firms like IBM looking to capture the growth of the broader cybersecurity market.

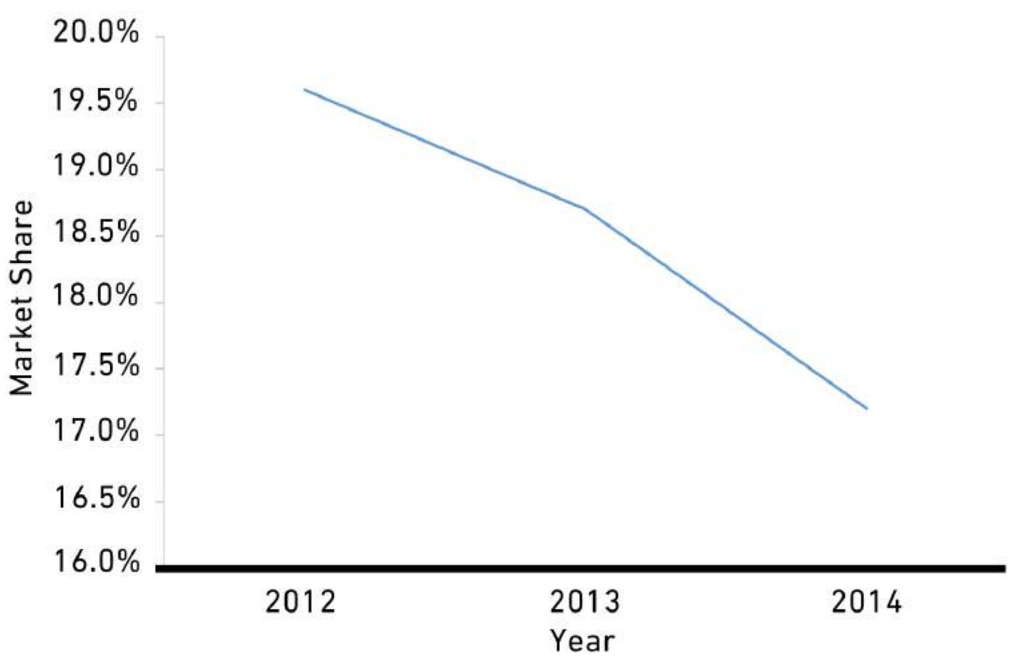
No growth in Consumer Security

The driver for consumer security growth is new PC sales, which is projected to decline by 3.1% in 2016. Though declining new PC sales negatively affects all players in the space, other competitors such as Microsoft and Intel's McAfee have more diversified revenue streams. Symantec, in comparison, derives 47% of its revenue from consumer security, and saw a contraction of 10.3% in that segment from 2012 to 2015. The sharp decline in consumer security puts additional pressure on Symantec to deliver results through its enterprise security arm.

Late entry into Enterprise Security

Symantec offers a suite of enterprise security products including: Secure Socket Layer ("SSL"), certificates, authentication, mail and web security, data center security, data loss prevention, information security services, endpoint security and management, encryption, and mobile security. However, Symantec's new enterprise product offerings lag the market due to the fact that Symantec's strategic direction is disorganized. Symantec has switched leadership three times in two years, and with each change came a reorganization of the sales and product development teams. An example of product lag is when Symantec released its Advanced Threat Protection (ATP) product in October 2015. In contrast,

SYMANTEC MARKET SHARE OVER TIME



Source: Gartner Research

Intel released a comparable product in 2014. This timing advantage helped increase Intel's share of the enterprise security market by 4.6%. While its R&D expenditure, at 18% of revenues, is consistent with the industry, Symantec needs to accelerate product development in an emerging security sector by completing an acquisition.

Smartening the Defenses

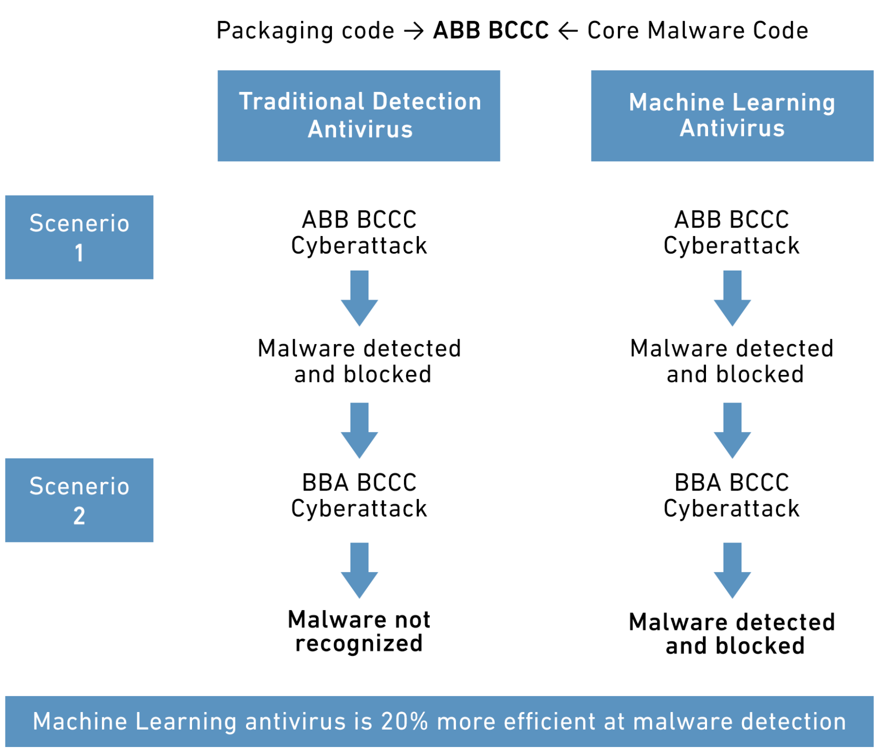
Although Symantec works vigorously to classify and defend against new malwares as they arise, the process is not fast enough. 70% of malwares were able to slip past detection in the first hour, and 34% remained undetected after 24 hours. In some cases, more sophisticated attacks could take up to a week before any progress is made in minimizing the damage. The industry's best response times are inadequate as the timeframe allows not only for the original victim's network to be compromised, but also does not provide protection to customers in the same space for the malware in question.

Symantec can look to decrease its response time by acquiring machine learning capabilities for its antivirus suite. Cylance is a private security firm that has built a preliminary machine learning program that is able to evaluate malware in under 100 milliseconds. Cylance classifies malware through static analysis, an examination approach that allows the computer to study malwares without having to execute its program. By bypassing the malware's code, it does not have the opportunity to defend itself and thus greatly decreases the complexity of malware identification.

Machine learning is a long existing data analytics concept that has only recently become commercially viable through the affordability of hardware. The physical machine is composed of many nodes that are each capable of processing information. Each individual node can be comparable to a single neuron in a brain. The machine is taught by processing raw data and pre-generated conclusions through the nodes to determine patterns that could lead to the provided answers. When this approach is repeated over millions of data points, it will teach the machine to learn how to interpret data and identify patterns. After the machine has been taught to draw accurate conclusions using past data, it is used to analyze new data and conditions.

Given the nearly 1 million new viruses that are released per day, Symantec claims that hackers are working faster than companies can defend themselves. Currently, the best available antivirus is able to only catch 87% of all new

BENEFITS OF MACHINE LEARNING ANTI VIRUS



Source: MIT Technology Review

threats. Malwares are able to hide themselves through different packaging and some are sophisticated enough to rewrite their own code. The static analysis approach allows the antivirus to treat all malwares of the same strain alike and is not affected by the different packages that exist. Studies show that by using a machine learning antivirus, the risk of a security breach on any specific company could be reduced by 20%.

Cylance: A Strategic Acquisition

Symantec is well positioned to take advantage of Cylance's knowledge and developed algorithms. Firstly, in order to build a more effective machine learning program, a large library of data is required. Symantec is the largest enterprise security vendor by customer base and therefore can leverage the quantity of data available to improve Cylance upon acquisition. Symantec also has on-demand access to data from its enterprise clients, which can continually feed into Cylance's machine learning program in order to learn patterns of malwares - increasing the program's efficacy.

Additionally, Cylance was the first mover of machine learning in the security space. The acquisition will make Symantec the first to bring this technology into the market on a large scale and thus can establish itself as the original distributor of machine learning antivirus. Cylance's machine learning software is also proprietary, meaning that other firms trying to enter the space would experience a lag in getting to market. Symantec can also work with Cylance on more ambitious projects, like predicting how malwares will evolve over time and intercepting cyber attacks before they strike.

Financing the Cylance Acquisition

Symantec's divestiture of its information security unit yielded $6.3B in after-tax proceeds. Cylance is currently backed by nine investors with a total of $77M in equity, and has recently completed a Series C funding round.

With its machine learning product, Symantec should aim to gradually win back its 2,000 lost enterprise antivirus customers from 2013 to 2014 upon launch in 2017. It was estimated that Symantec lost approximately 2,000 customers as revenue decreased by $79.6M because each endpoint was approximately $40, and each customer had an average of 500 endpoints. Symantec lost these customers due to decreased consumer confidence driven by leadership turmoil. While regaining these customers, the new antivirus price can be increased from $40 per endpoint to $58 per endpoint. This price is comparable to what competitors such as Kaspersky and Intel are charging, and can be justified given the machine learning antivirus' additional capabilities. Given these assumptions, Symantec's machine learning antivirus has the ability to earn $115.4M incremental revenue in 2017.

Rolling Out Machine Learning

A new product should be developed by 2017 that operates separately from Symantec's current antivirus system using Cylance's machine learning technology. Since Symantec will be deploying this software to protect highly sensitive data, it is important that their new product is vigorously tested before being licensed for enterprise use. A one year free trial for low-priority, small and medium-sized businesses will allow Symantec to perfect the product. This release will also allow Symantec to demonstrate to clients that this new product is indeed superior to current industry offerings. In the long term, Symantec should work to transition its existing clients to this new superior product.

Developing the Next Generation

Security breaches are grabbing news headlines, and cybersecurity is an issue that will only grow in importance. Developing a machine learning antivirus product through acquiring Cylance will help Symantec re-establish its position in the next-generation enterprise security space.

> *"The acquisition will make Symantec the first to bring this technology into the market on a large scale and thus can establish itself as the original distributor of machine learning antivirus."*

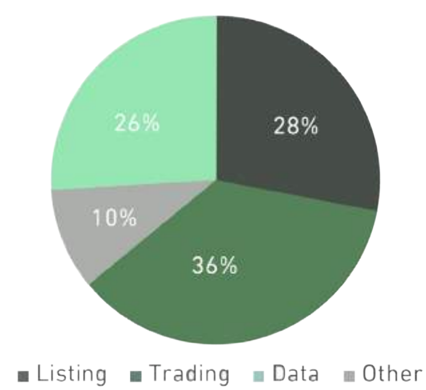
TMX: GOING ON EXCHANGE

TMX is facing increased competition in an industry and needs to leverage its ventures exchange as a key differentiator and an avenue of growth.

Jeet Chakrabarty & Cecilia Ma

TMX Group Limited (TMX), best known for its operation of the Toronto Stock Exchange (TSX) and TSX Venture Exchange (TSXV), has long remained a virtually unrivalled monopoly in Canada. The company once had a 99.7% share of the market by value traded, which has since dropped to 67.4% in 2015. Recent technological advances and loosening regulations on exchanges and trading platforms have resulted in the emergence of competitors that are now challenging TMX's monopoly. NASDAQ's 2015 acquisition of Chi-X, one of the TMX's largest competitors with 12.4% of Canadian trading volume, strengthens NASDAQ's position in the Canadian market. This presents a threat to TMX's entire business given the interrelated nature of the revenue sources and NASDAQ's ability to leverage its international brand and large US presence.

DISTRIBUTION OF REVENUE SOURCES



Source: Company Filings

TMX's Revenue Streams

TMX's main sales stem from listing, trading, and data, which represent 28%, 36%, and 26% of revenues respectively. Listing fees are comprised of one-time fees paid by issuers during initial public offerings and secondary offerings, as well as annual fees required to sustain listings. Trading revenues are fees paid by market participants for executing buy and sell orders in TMX's markets. Data revenues are derived from subscribers paying for access to real-time data. While the listings only represent 28% of TMX's revenues, attracting listings is a necessary prerequisite to generate future trading and data revenues. Thus, a loss in listings may put all three of TMX's primary revenue streams under substantial competitive pressures.

Rise of Competitors

On December 1, 2001, federal regulators approved alternative trading systems (ATSs) to incentivize competition and innovation. ATSs are non-exchange markets where buyers and sellers of securities come together to transact. They cannot host listings themselves and must trade securities listed on other exchanges. At the time, barriers to entry were still relatively high due to the expensive technological investment necessary to create a successful ATS. However, advances in technology over time have made it cheaper and easier to create an ATS, gradually lowering the barriers to entry. Benefits for investors and traders include: lower transaction costs from the lack of overhead associated with traditional exchanges, extended trading hours, and investor anonymity, giving investors incentives to switch from TSX to these platforms.

While ATSs typically lack requisite industry knowledge, expertise, and personnel to apply for listing capabilities, NASDAQ may use Chi-X, an ATS, to gain stronger presence in the Canadian market before expanding into other offerings. NASDAQ has previously publicly stated its intention for this acquisition to be a launching pad for its trading business in asset classes other than equities. There is also speculation that the company has already applied for exchange status, which will enable it to establish a listing venue.

Comparatively, NASDAQ offers a wider investor base and global markets, while TMX offers lower costs and attractive corporate governance requirements tied to Canada. However, TMX would no longer have the competitive advantage of less onerous requirements if NASDAQ opens a Canadian office and receives regulatory approval. Additionally, cheaper listing fees represent a small portion of the cost of being a public company, essentially failing to provide a compelling value proposition over NASDAQ. Thus, before NASDAQ gains approval for its listings business, TMX should take measures to ensure it will not be significantly displaced by NASDAQ Canada.

TSX Venture Exchange

The TSX Venture Exchange (TSXV), another exchange owned by TMX, caters to junior companies looking for public capital and currently has 1,532 active listings. Companies listed on the TSXV typically have a higher propensity to later list on the TSX due to the easy transition from the TSXV to the TSX. Companies that graduate from TSXV typically benefit from cost savings and reduction of paperwork. Historically, this system has represented a significant source of new listings. Since 2000, 318 businesses currently on the TSX have “graduated” from the TSXV, representing 20% of total companies currently listed on the TSX.

Companies whose size or characteristics restrict them from listing on traditional exchanges can use alternative funding methods such as the Over-The-Counter (OTC) market, where stocks are unlisted and trade on a dealer network. However, the TSXV has a few notable advantages stemming from stronger investor protection and greater visibility. TSXV allows for companies to become public at an earlier stage of their life cycles, allowing for more liquidity and accessibility. Compared to TSX, TSXV Tier 2 companies, the earliest stage allowed on the exchange, require 93% lower net tangible assets and 75% less in pre-tax earnings. The exchange also enables issuers to raise smaller amounts of capital, avoiding early equity dilution. The easier access to capital and ability to raise smaller amounts of equity are in part attributable to processes unique to the Canadian market such as capital pooling companies (CPC), which act as investment vehicles to acquire a specific company. This is an option developmental companies can utilize instead of pursuing an IPO. Benefits include the ability to lower investor concentration and have more flexible equity offering structures. Together, these factors encourage and allow more junior issuers to list.

With 74 firms from the US currently on the TSXV, there is proven demand from companies outside of Canada. TMX and TSXV are appealing to particular companies due to their focus on natural resources. Exchanges usually serve a particular niche as they can offer better industry expertise and a large number of comparable companies; these are important criteria companies consider when choosing the exchange on which they list, as this ensures comparability of performance and improved analyst coverage. However, TMX’s current perception as a mining and energy focused exchange is also a significant barrier to diversification and expansion.

TMX and TSXV should shift their focus to technology, not only to combat the threat of NASDAQ, who has previously stated its intention to increase focus on attracting technology listings, but to capitalize on a fast growing sector. Moving into the technology space is also in line with TMX’s stated strategy and will provide diversification. However, technology listings are difficult to attract without more pre-existing technology listings already in place. This “chicken-and-egg” conundrum can be solved in the long-term via the TSXV, as smaller technology companies have fewer listing options.

The only other junior exchange that has generated significant interest on an international scale is the London Stock Exchange’s (LSE) Alternative Investment Market (AIM). With 40% of the 1033 listed companies operating in foreign countries, the exchange has already made inroads in its foreign listing strategy. However, TSXV offers better access to North American investors. Additionally, the self-regulated nature of the AIM has made its investor protection questionable. In contrast, being listed on the

TSXV improves a company's credibility given the level of due diligence conducted by Canadian regulators.

US exchanges have largely avoided targeting junior companies because the Sarbanes-Oxley Act of 2002 mandates strict reforms to improve financial disclosures and accounting standards, ultimately leading to increased compliance costs. This makes the formation of an exchange focused on small and medium enterprises (SMEs) difficult given the lower cash flows SMEs typically have. Thus, the threat of NASDAQ and other US exchanges entering the SME space is low.

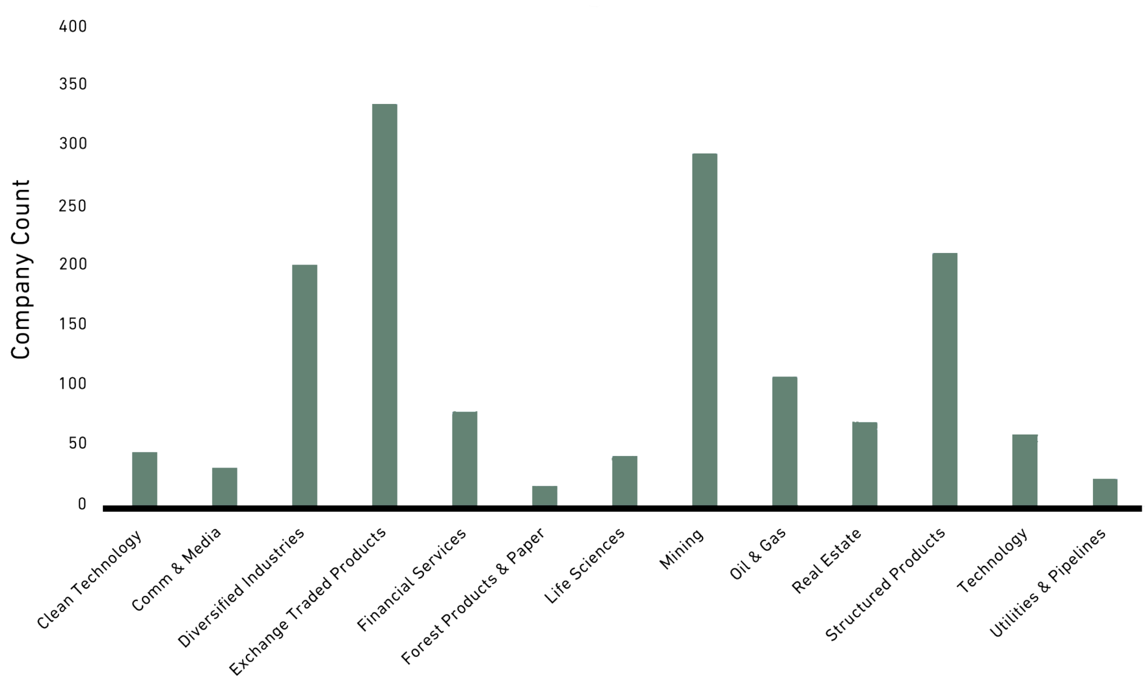
An Alternate Strategy

TMX's next step should be to further expand internationally. Companies in developing countries can especially benefit from listing with TMX; TMX having a more established infrastructure offers greater analyst coverage, a wider investor base, and more accurate valuations. TMX should pursue expansion through strategic partnerships that allow for interlisting. Partnerships with exchanges save TMX from the costly and time-consuming marketing efforts of finding and attracting foreign companies to list on the TSXV. TMX can act as a gateway for companies from emerging economies around the world to access the North American markets. Listing on the TSX or TSXV offers the benefit of accessing North America capital markets while avoiding the heavy regulatory burden of Sarbanes-Oxley, but still having cultural and time zone similarities to the US.

This is similar to TMX's existing agreement with the Santiago Stock Exchange to allow simpler and cheaper interlisting. However, TMX should be wary about its focus on mining. In creating these strategic partnerships, it has focused exclusively on this industry, which has further cemented its position as a natural resource centered exchange. Given the downturn in commodities, the Canadian economy is being pressured to diversify away from natural resources. TMX has also seen revenues decline from lower trading volume and delistings in this sector, contributing to lower market share. Through diversification, TMX would be able to mitigate against the downturn, offer investors a larger selection of companies, and better position itself to represent a more diverse Canadian economy. This should be achieved through open-ended interlisting partnerships to diversify from this niche reputation in the long term.

A particularly attractive market for TMX to pursue is India, with the majority of Indian companies choosing to list domestically. TMX should pursue a partnership with the Bombay Stock Exchange SME (BSESME). Although India has experienced rapid growth in VC funding, venture capital is less accessible in India compared to in the US, with only

TMX SECTOR DISTRIBUTION



Source: TMX Statistics

110 technology-focused Indian incubators compared to nearly 700 in the US. By entering India, the TSXV can help bridge this funding gap. Additionally, there is an increasing trend towards accessing alternative methods of financing after the initial Series A. Having further equity offerings through venture capital would lead to further dilution, while having nascent business models prevent the companies from gaining access to bank loans. By taking advantage of CPCs, available through TSXV, companies will have lower investor concentration and founders will be able to retain higher ownership. This strategic partnership would allow both exchanges to streamline the process of interlisting companies.

The BSESME was created in 2012 and has succeeded in listing 125 companies to date, graduating 16 of these to the main BSE. Given that it has also experienced controversy surrounding rigged share prices and fraudulent corporations, the company would benefit from a partnership with a credible exchange like the TMX. Furthermore, only 36 of the companies on the BSESME are actively traded, indicating weak liquidity. A possible partnership structure would allow for both parties to benefit from interlisting opportunities and BSE to receive technological and managerial expertise to prevent the aforementioned issues from arising in the future.

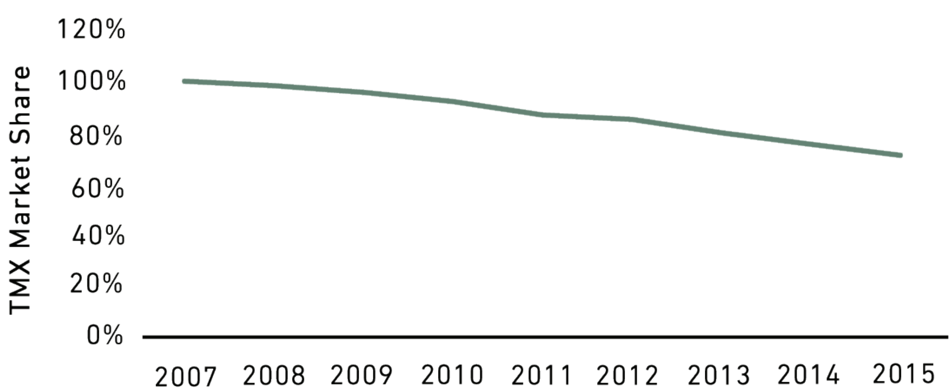
While expanding internationally, TSXV may encounter dilution in the quality of its listings. Nominated Advisors (Nomads) can act as a safeguard to maintain integrity of TSXV's listings. Nomads are currently unique to AIM, and a main attraction for companies looking to join the exchange. Nomads are generally boutique investment banks, or other professional firms, that serve as the facilitators of the regulatory regime of AIM. They are in charge of admitting companies to AIM, and then providing ongoing compliance checks and strategic advice. Not only do Nomads pay a fee to LSE to gain access to AIM, the advisory firms are paid for by the listed companies. It is mandatory for each company on AIM to pair with at least one Nomad whose core competencies complement the needs of the business.

TSXV should employ a similar advisory system, in order to compete with AIM for small and medium cap companies looking to list. These Nomads would add value to SMEs by using their industry expertise and previous experience with working with comparable companies. Furthermore, these advisors can help maintain the quality of the TSXV listings by guiding them to graduation, and preventing delisting scenarios.

These measures will allow TMX to move away from its natural resources dependence, and allow it to remain the dominant exchange in Canada.

"A particularly attractive market for TMX to pursue is India, with the majority of Indian companies choosing to list domestically."

TMX TRADING VOLUME MARKET SHARE



Source: IIROC Statistics

SUNEDISON: SUNNY DAYS AHEAD

To relieve pressures from its liquidity crisis, SunEdison must give up voting control of its subsidiary.

James Serena

Global solar power generation on average grew by over 50% per year between 2004 and 2014, and now makes up over 1% of all electricity produced globally. Moreover, solar power made up half of the generating capacity of new power plants installed in the US in the first quarter of 2015. This rapid adoption has been driven by improvements in panel efficiency, government subsidies, and innovative financing arrangements for consumers.

Utility-scale solar projects are finally cost competitive with power generated from other renewable and conventional sources. A 2014 Lazard study found the unsubsidized levelized cost of energy (LCOE) for utility-scale solar ranged from \$72/MWh to \$86/MWh, ignoring certain social and environmental externalities. In contrast, electricity generated from more conventional means, such as coal and nuclear power, had LCOEs ranging from \$66/MWh-\$151/MWh and \$92/MWh-\$132/MWh respectively. The decreasing cost of generating solar power is creating enormous opportunities for solar power developers.

Like most forms of power generation, solar power plants require large up-front capital investment. While solar panels can last over 25 years, in many cases capital costs are not recovered for 15 years.

SunEdison

SunEdison (SUNE), the world's largest renewables development company, primarily focuses on utility-scale solar power projects - projects which consist of thousands of solar panels. In order to continue its extraordinary growth, SUNE is dependent on external financing. To raise the money necessary to build and sustain its projects, SUNE has developed a complicated organizational structure with multiple subsidiaries, three of which are public companies.

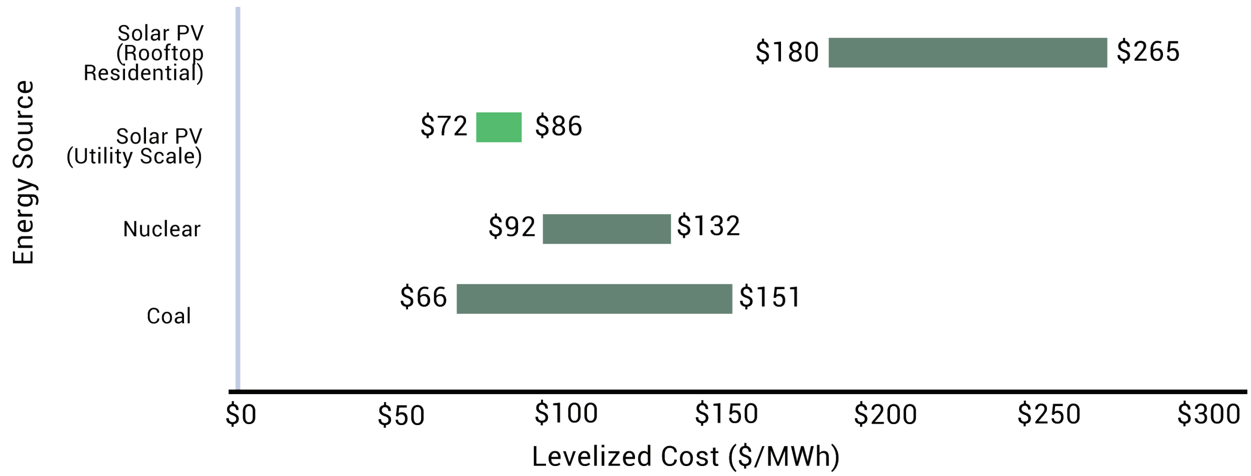
SUNE targets projects with three key entities: SunEdison Semiconductor Limited (SEMI) manufactures silicon wafers, development companies (DevCos) purchase these wafers to create new "shovel ready" projects, and these projects are sold to private construction entities called "warehouse credit facilities".

These warehouses are ring-fenced, meaning that they are legally separate from the parent company while still being under its control. In the case of utilities, ring-fencing is designed to protect consumers from a bankruptcy of the parent company and is commonplace in utility scale project development. Having this bankruptcy remoteness allows the warehouses to raise money from institutional investors at reasonable rates to finance the development of large projects, with those investments secured specifically for that project.

Once the project is completed, SUNE has the option of keeping the solar project in the warehouses to earn a stream of cash flows or selling these projects to a third party or one of its "YieldCos". A YieldCo is a high dividend payout, yield-oriented company that takes the cash generated from electricity sales and distributes the majority of the free cash flow back to investors, supported by low cash tax rates due to government incentives.

SUNE is the majority shareholder in its YieldCos, TerraForm Power (TERP) and TerraForm Power Global (GLBL). Therefore, SUNE still benefits from the cash flow of the

UNSUBSIDIZED LEVELIZED COST OF ENERGY COMPARISON



Source: Lazard

projects it "drops down" into the YieldCos. The TerraForm YieldCos also have "Incentive Distribution Rights" (IDRs), which allow SUNE to earn a larger percentage of the distributable cash as the YieldCo achieves certain distribution targets. These IDRs are designed to incentivize SUNE to sell projects to its YieldCos on mutually attractive terms rather than selling to third parties. IDRs create a win-win situation for SUNE and its YieldCos' investors as transactions would support distribution per share growth for both.

Cloudy Days

In the last 12 months, SUNE's shares have dropped over 90%. This aggressive decline stemmed from a liquidity crisis; SUNE was forced to restructure and take on more expensive debt to avoid potential default. Before the crisis, SUNE had three key ways of raising money: traditional debt financing through the DevCo, warehouses, or YieldCos; traditional equity raises primarily done through the YieldCos; and selling projects either to YieldCos or a third party.

In a credit crunch, traditional debt financing becomes prohibitively expensive. Lenders are now charging SUNE around 11% interest to pay off loans that used to be priced at 3%–5%.

Issuing equity is also no longer feasible due to the dilutive effects from SUNE and its YieldCos' heavily discounted stock prices. Furthermore, when Greenlight Capital took a seat on SUNE's board of directors in early 2016, it made SUNE agree not to issue any additional equity without the approval of nearly all of its board members over the next two years.

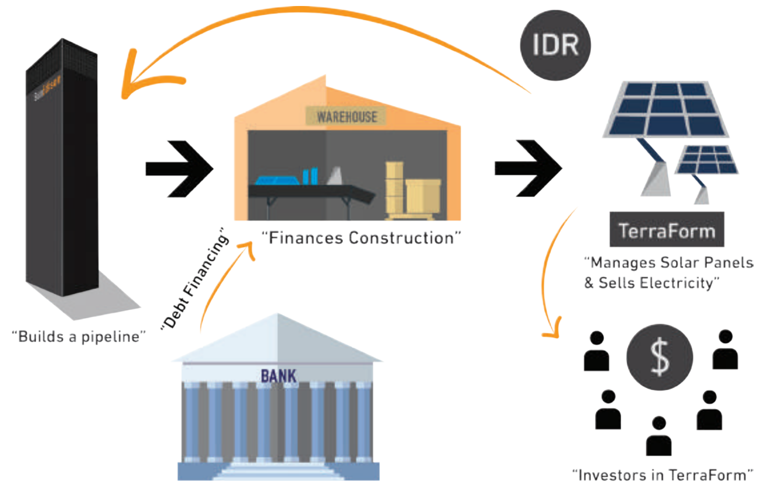
A Deeper Dive Into YieldCos

As publicly traded companies, YieldCos are valued by investors based on specific multiples. YieldCos trade on a Price / Cash-Available-for-Distribution multiple (P / CAFD). CAFD is a yield-focused metric that shows how much cash the YieldCos have, after expenses are accounted for, to be distributed back to shareholders in the form of a dividend. When P / CAFD multiples are high, YieldCos are able to pay more for solar projects and still have the resulting cash flow from the projects be accretive to share price. The issue recently is that US interest rates have increased and global commodity markets have fallen. TERP's share price and P / CAFD multiple have crumbled, resulting in TERP being unable pay SUNE the higher prices that it used to for solar projects. As a result of TERP's low multiples, SUNE has kept a number of projects in its warehouses, preventing SUNE from selling projects to generate cash and manage its overbearing debt load.

Relinquishing Control

Currently, TERP's shares are significantly undervalued because investors fear that SUNE will declare bankruptcy. SUNE holds a 90% voting ownership of TERP through a set of Class B common shares that gives SUNE ten votes per share. Concerns about potential conflicts of interest between public shareholders and SUNE, who is not only the controlling shareholder of TERP but also a company with challenged liquidity, have led the markets to punish TERP. However, if SUNE were to exchange its Class B shares for the standard, one-vote Class A shares, it would give up its controlling interest in TERP. While giving up control of a subsidiary seems to be a radical move, there is precedent; recently, Abengoa reduced its ownership in its

SUNEDISON STRUCTURE



Source: IBR Analysis

holding company, Abengoa Yield, to insulate the YieldCo from Abengoa's potential bankruptcy. There are a number of mutually beneficial advantages to a similar transaction between SUNE and TERP:

1) Eliminating investor fears of conflicts of interest that could arise from SUNE's potential bankruptcy would cause TERP shares to climb;

2) Higher share prices will lead to higher CAFD multiples, indicating that TERP would be able to buy the projects currently held in SUNE's warehouses at higher prices and still have them be accretive;

3) With a higher TERP share price, SUNE would be able to sell more TERP shares in order to raise money to manage its debt.

While TERP currently trades at 6.6x P / CAFD, the industry median is 13.2x, exactly double that of TERP's multiple. After Abengoa Yield separated itself from its parent company, its P / CAFD multiple shot up to 10.6x, implying that a similar multiple could be achieved by TERP post-transaction. Even if this strategy only results in a multiple 25% below the industry median, that jump represents a 50% increase in TERP's current share price. As TERP's P / CAFD multiple increases, TERP will be willing to pay higher prices for SUNE's projects and SUNE will be able to raise capital through both project drop downs and sale of existing TERP shares.

Risk Control

While the proposed transaction has benefits to SUNE, these benefits are only realized if investors drive TERP's share price upwards. It is possible that the YieldCo market continues in a downward spiral and SUNE sees little benefit to spinning off TERP. In order to limit SUNE's downside, SUNE should take the following actions:

1) Reset the IDRs, giving SUNE a larger claim on future benefits of TERP;

2) Control, to an extent, the project drop downs into TERP, ensuring SUNE can still sell its projects to the YieldCo

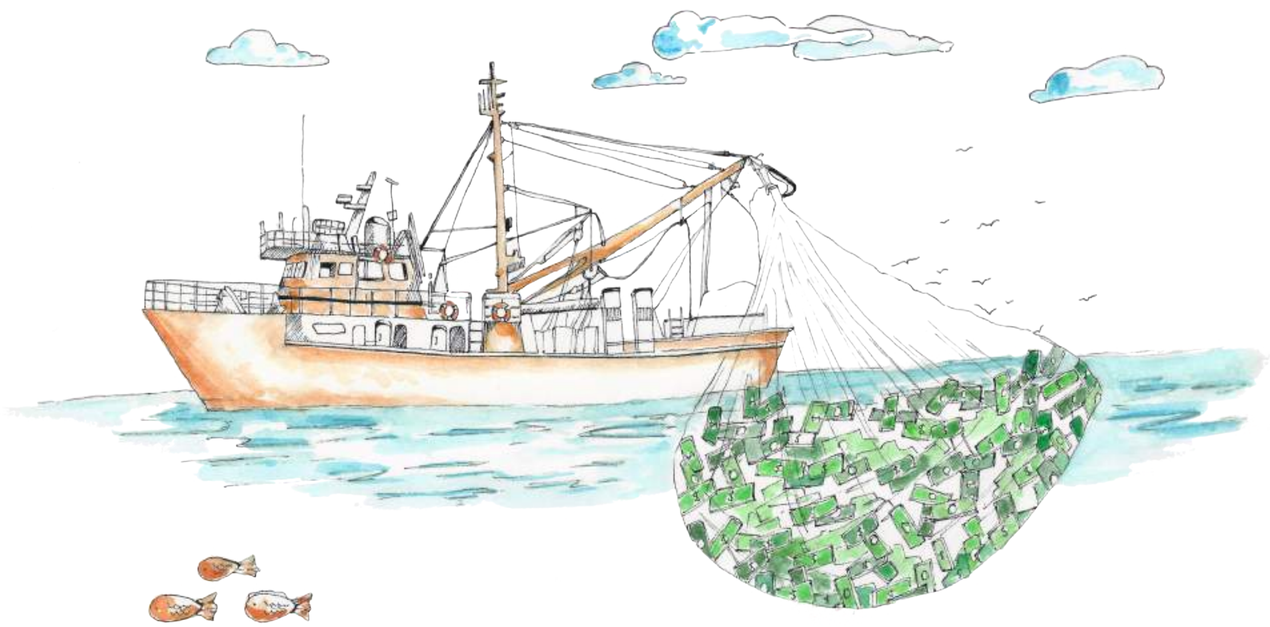
These two actions should be taken as insurance for the strategic benefits associated with the deal failing to materialize. With these incentives, SUNE will be able to relinquish its ownership of TERP while maintaining the benefits of project drop downs at above street prices. As SUNE is currently facing a liquidity crisis, having a system that allows it to raise money through selling TERP shares at higher prices or selling projects will allow SUNE to have a cash infusion without paying high interest rates or sacrificing a part of its business. SUNE should have a contractual agreement with TERP to drop down projects meeting certain criteria, which will be carefully structured to ensure that SUNE does not have undue influence over TERP. Ironically, the best way for SUNE to grow is to release ownership of its largest subsidiary.

Moving forward under this proposal will allow SUNE to maintain its position as the leading renewable development company. SUNE will position itself for growth and continue to make a meaningful impact on the global focus to combat climate change.

SWIMMING THROUGH **NEW CHANNELS**

Community Supported Fisheries are struggling with profitability, but a reciprocally beneficial opportunity exists to target hotels.

Abdul Khan & Shervin Yousef-Zadeh



With $200B in annual purchasing power, millennials are on pace to outspend baby boomers by 2017. It is evident that it is increasingly vital for businesses to understand the differences in consumption preferences and patterns between millenials and previous generations, in order to capitalize on market opportunities. One of the key differences with the spending pattern of millennials is their preference for sustainable products, with 75% of millennials willing to pay premiums for sustainability. Community Supported Fisheries (CSFs) is an innovative and disruptive business model that can effectively cater to millennials' preference for sustainability.

The CSF Model

The CSF model is an alternative business model for selling fresh, locally sourced fish. Traditionally, CSFs operate on a subscription-based model, receiving bulk payments at the beginning of the season from clients who sign up for weekly or monthly seafood deliveries. During the fishing season, fishermen who have agreed to be a part of the CSF catch, fillet, prepare, and package their fish and deliver them to pick-up locations, usually within 24 hours of the fish reaching the dock. For consumers, the CSF model provides easy access to fresh, high quality fish while supporting local businesses. At the same time, fishermen are able to cut out middlemen such as processors in order to earn higher margins.

CSFs are responsible for delivering products to customers at select drop-off locations, where consumers within a certain geographic area will congregate to pick up fish at a prearranged time. However, due to the distance from fishermen to customers, transportation costs account for approximately 40% of total costs for most CSFs. In fact, according to Dock to Dish, a CSF operating in New York, fisheries need almost 450 individual subscribers to cover operating costs. As individual subscribers may span a

BENEFITS OF CSFs

Traditional	CSF
FISHERMAN	
Only responsible for catching seafood.	Full ownership of seafood retained until sale
SUPPLY CHAIN	
Long, passing through several intermediaries.	Large scale distributors and wholesalers are cut out.
MARGINS	
Lowest margins for fisherman.	Fishermen retain 33% more of the final selling price from intermediaries

Sources: Stoll, J., B. Dubik, L. Campbell. (2015). Local seafood: rethinking the direct marketing paradigm. Ecology & Society, 20(2), 1-14

vast geographic area, many drop-off locations are usually necessary. These high transportation costs contribute to the difficulty of making the modern day CSF model profitable.

Sales and administration expense, inventory costs and other operational expenses are other costs associated with running a CSF. In a traditional fishing business, these costs can be partially passed on to middlemen. However, in a CSF, fishermen are forced to take on these costs themselves. Consequently, many CSFs struggle with managing these costs, due to the fishermen's lack of business knowledge and experience. For example, the logistical side of the business overwhelmed Dock to Dish's fishermen to such a degree that their costs amounted to twice as much as their revenues. While fishermen only needed to catch fish before implementing the CSF model,

> *"Fisheries need almost 450 individual subscribers to cover operating costs."*

they must now also find, manage, and coordinate hundreds of customers just to break even. Consequently, Dock to Dish decided to implement a restaurant-supported model in an attempt to simplify business operations.

New Alternatives to Navigate Troubled Waters

The restaurant-supported fisheries model simplifies customer relationship management and eliminates the need to process fish. The majority of fine-dining restaurants cut and prepare seafood in-house, thus, CSFs no longer need to process the fish, which can amount to 27% of total costs. Shifting to such a model effectively increases purchase volume per customer and improves the predictability of demand compared to focusing on individual subscribers.

Partnering with a CSF is something restaurants can highlight to demonstrate their involvement in supporting local businesses as well as their commitment to sustainable seafood practices. For example, restaurants such as Le Bernardin in New York and Narisawa in Tokyo have earned and maintained Michelin stars based on their exclusive, locally-sourced seafood menus. Moreover, because deliveries from fishermen are usually made within 24 hours of making the catch, restaurants will be able to receive the freshest, highest quality seafood.

There are, however, limitations to restaurant-focused CSFs. Transportation costs remain high as CSFs must still deliver to an average of 14 restaurant locations compared to the average 15 drop-off locations for a traditional mid-sized CSF, leading to only a 7% decrease in transportation costs. Additionally, restaurants' order volumes are limited by their average seating capacity of approximately 34 tables per restaurant. While catering to this capacity would be more efficient than targeting individual subscribers, further efficiencies can be reached if a larger business partner can be found. Therefore, while catering to restaurants decreases processing costs, serving customers on an even greater scale will be a more lucrative opportunity.

Adjusting the Sail

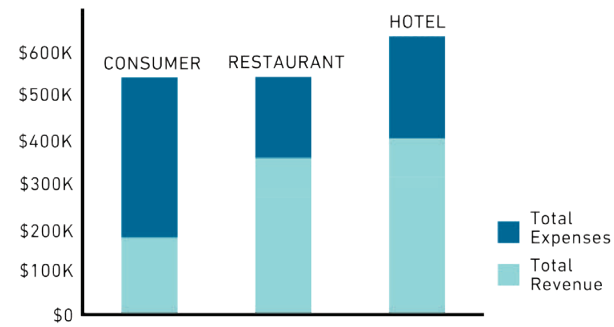
An untapped market, namely luxury hotels, exists for CSFs looking to simplify operations, lower costs, and stabilize cash flows. CSFs currently struggling with profitability can target luxury hotels within the top 15% Average Daily Rate bracket, a measure of the average rate paid for rooms sold. Targeting luxury hotels offers the same benefits as targeting restaurants, such as the elimination of processing costs. However, hotels have even greater demand for fish than restaurants on a per location basis. It is projected that just two luxury hotels can provide sufficient demand for a CSF to operate profitably. This would reduce transportation costs by 86% compared to the restaurant-focused CSFs by decreasing the number of delivery points.

Changes In The Hotel Scene

There is an increasing number of younger, sustainability-conscious visitors to luxury hotels who put less emphasis on brand heritage and more on experience. Millennials are now the largest group within the American workforce and are nearly twice as likely to travel for business as

> *"It is projected that just two luxury hotels can provide sufficient demand for a CSF to operate profitably."*

ECONOMICS OF DIFFERENT TYPES OF CSFs

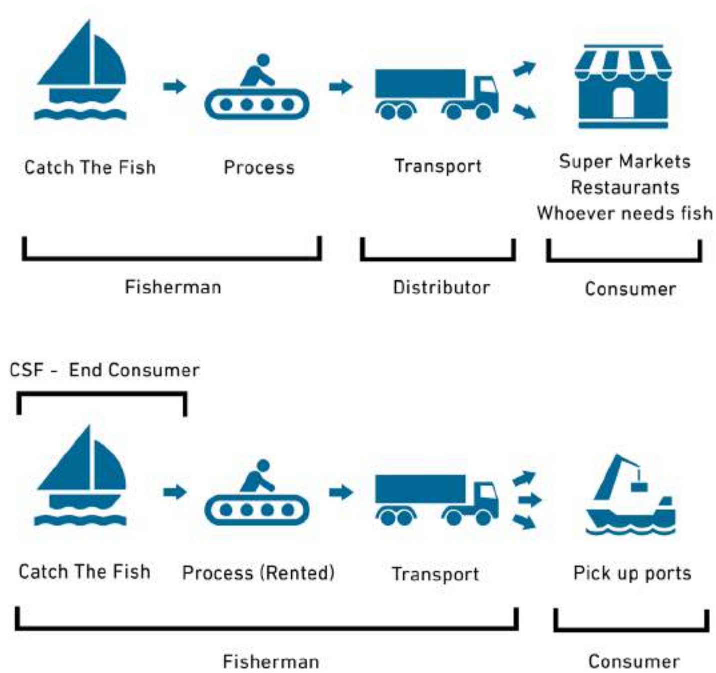


Source: IBR Analysis

baby boomers. As a result, hotels must update their value proposition to account for this change in customer demographic. Due to the intense competition in the hospitality industry, hotels must offer more novel and higher quality guest experiences to increase ratings and attract more millennial visitors.

Food & Beverage Operations (F&B) are critical to the success of a luxury hotel, comprising a third of an average luxury hotel's revenues. F&B can be broken down into restaurant operations within the hotel, room service, and banquet catering. Hotel F&B demand is driven primarily by three factors: average restaurant capacity, the number of restaurants per hotel, and demand from banquets. Overall, a single large hotel with more than two internal restaurant operations requires approximately six times as much raw ingredients as a single restaurant.

VALUE CHAIN OF TRADITIONAL FISHERIES VS CSFs



Source: Globe and Mail

"The locally-sourced fresh fish that CSFs offer is especially relevant to the millenial demographic that luxury hotels strive to attract."

Within the luxury travel sector, maintaining high ratings is a difficult endeavour due to the high expectations of reviewers, changing consumer demands, and the disproportionately negative impact that a few poor reviews can have on a hotel's success. Luxury hotels are incentivized to highlight their ingredient origins as a means of enhancing their marketing efforts and further connecting guests to their locale as it builds a "justification of purchase". Such a connection made by hotels is incredibly important to millennials, who believe that sustainability, naturalness, and craftsmanship are integral to a luxury experience.

Taking The Bait

With luxury hotels looking to differentiate from competitors, F&B stands as a major function where changes can be made to improve guest experiences. Strong F&B is one of the key drivers of a hotel's revenues, profits, and overall reputation - something that is critical for luxury hotels to maintain and gain market share. The locally-sourced, fresh fish that CSFs offer is especially relevant to the millennial demographic that luxury hotels strive to attract, providing a competitive advantage to their F&B operations.

Compared to serving restaurants or individual subscribers, targeting luxury hotels enables CSFs to reduce expenses by 46% or 62% respectively, ultimately making hotel-supported fisheries profitable with approximately a 68% profit margin.

In addition, a study showed that offering locally-sourced seafood can drive a restaurant's rating up by between 0.25 and 0.5 stars. This jump in ratings is attributed to the increased level of perceived "authenticity" that comes with locally-sourced seafood. Such increases correlate to 3-5% increases in the Average Daily Rate.

Action Plan

When approaching hotels, CSFs must highlight their ability to deliver fresh fish that travels from boat to drop-off location within 24 hours - something that no other supplier can achieve. Due to seasonal changes in seafood availability, payments should be arranged in seasonal contracts and collected on a weekly basis to stabilize cash flows. Hotels should also be made aware that CSFs offer shorter notices for order changes and greater selection of fish as compared to typical national food distributors.

To successfully transition into serving luxury hotels, CSFs will need to hire and allocate dedicated agents to manage customer relations. As the number of clients decreases when moving to the hotel-supported fisheries model, the importance of servicing each client grows. Acquiring external competencies to help manage the financial aspects of running a CSF is important, especially when the fishermen in the CSFs have no prior business background. Each agent will be in charge of generating sales leads as well, and the number of agents can be increased as more hotels are taken on as clients.

In the long-term the CSFs in the country should develop a certification, similar to the Rainforest Alliance Certified™ Seal, which can be given to businesses that source fish from CSFs. This will help CSFs gain legitimacy when trying to acquire potential partners. As well, hotels will be able to better advertise the fact they partner with CSFs, by putting the certification on their menus and promotional items.

Set Sail

Traditional CSFs and restaurant-supported fisheries should consider shifting their focus to becoming hotel-supported fisheries, as the simplicity and profitability that fishermen gain through the model, combined with the autonomy that they retain, provide an attractive alternative for the community. If successful, the impact of hotel-supported fisheries may be felt throughout the foodservice industry and amongst various consumer demographics. If fishermen are able to establish and validate themselves in the luxury sector, they will be able to maximize awareness for CSFs across a larger group of consumers, and reinforce the quality of their farm-to-table products.

"Acquiring external competencies to help manage the financial aspects of running a CSF is important, especially when the fishermen in the CSFs have no prior business background."

THE BOTTOM OF **THE BARREL**

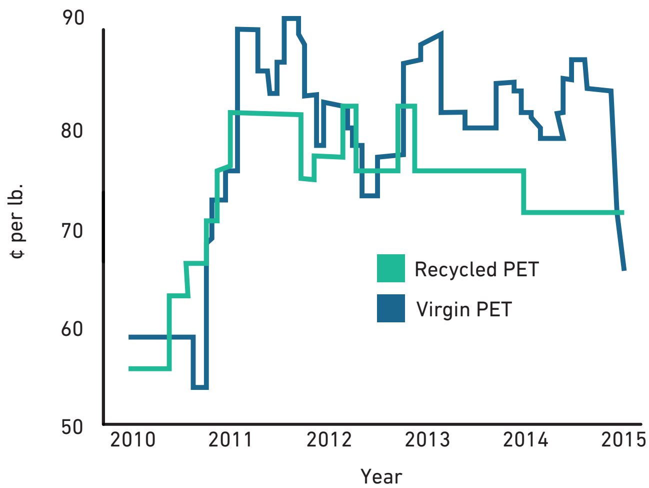
With low oil prices driving down demand for recycled plastic, Waste Management must target CPG manufacturers through shareholder activism and value-added services.

Samantha Juman

In Spring 2015, oil prices fell from $120 a barrel to $50, resulting in rejoicing consumers and distress in commodity-dependent countries. However, one particular industry has stayed away from the spotlight: recycling. Recycling is currently a multimillion dollar business with $706B worth of opportunity that could be unlocked with the key of a circular economy: an industrial economy that is producing no waste or pollution. A multitude of issues, however, from technical complexities in the recycling process to overall lack of education about recycling practices, have created roadblocks for the industry to realize its true potential.

With the recent collapse of oil prices, manufacturing industries dependent on the commodity have been affected. Plastic is made from petroleum, and the fall in oil prices has dragged down with it the cost of producing virgin polyethylene terephthalate, a type of plastic known as PET. When oil prices are high, it has historically been more economical for manufacturers to purchase recycled

PRICE COMPARISON BETWEEN VIRGIN PLASTIC & rPET



Source: Wall Street Journal

PET (rPET), compared to the higher price of virgin PET. With oil below $50 a barrel, the cost of virgin PET dropped to 67 cents per pound, 7% less than the recycled form. In turn, companies using plastic in manufacturing their products, usually consumer packaged goods (CPG), abandoned rPET for virgin plastic while prices were low.

WM: Avoiding Wasted Value

Operating throughout North America via subsidiaries, Waste Management, Inc. (WM) collects, transports, recycles, and disposes waste. Despite tripling the overall recycling rate in the US to 30% since its inception in 1998, WM's profits for selling recyclables dropped 50% in 2015, likely due to decreased demand from low oil prices. Cheaper oil means less business for WM as customers switch from purchasing recycled to virgin plastic. Being North America's leading environmental solutions provider, WM has been hit hard, shutting down 10% of its recycling process facilities. Although only 10% of its revenue is attributed to recycling, WM is the overall market leader, and any changes in the recycling industry cannot be ignored.

WM must encourage and capitalize on overall industry growth. US demand for post-consumer recycled plastics is forecasted to rise 6.5% annually to 3.5 billion lbs in 2016. This increase is driven by a growing emphasis on sustainable packaging, advancements in processing and sorting technologies, as well as an improved collection infrastructure to raise plastic recycling rates. Although WM's recycling revenues have shrunk by $200M since 2010, its overall strong financial performance is evidenced by its 2014 net income of $1.2B and free cash flow of $3.4B, which is amongst the highest in the industry. Its market leadership and financial resources can be used to galvanize support from key stakeholders.

Sowing Shareholder Advocacy

In recent years, corporate social responsibility (CSR) has had an increasing role in corporate decision making, driven by the growing prevalence of shareholder advocacy. One non-profit organization in this field is As You Sow (AYS), whose mission is to promote environmental and CSR initiatives through the influence of shareholders. Since its inception, AYS has swept the corporate world, influencing companies in a variety of industries such as McDonald's, Hewlett-Packard, and Coca-Cola. Recently, engagements with Coca-Cola, PepsiCo, and Nestlé Waters resulted in commitments to recycle 50% of their plastic bottles in North America. In 2014, continuous shareholder advocacy efforts triumphed with Colgate-Palmolive. The company made the pledge to phase out non-recyclable packaging in three of four operating divisions by 2020, and use 50% recycled content in packaging containing PET and polypropylene.

WM should follow the same route and target shareholders of CPG manufacturers. Institutional investors with CSR mandates or receptiveness to long-term sustainability should be targeted over individual shareholders with less influence. These shareholders can be identified as those who engage in socially responsible investing (SRI). SRI has experienced dramatic growth since the 1990s, and as of 2014, one in six dollars under professional management in the US is involved in SRI. The growth of SRI indicates a sizeable market of SRI institutional investors that Waste Management could target.

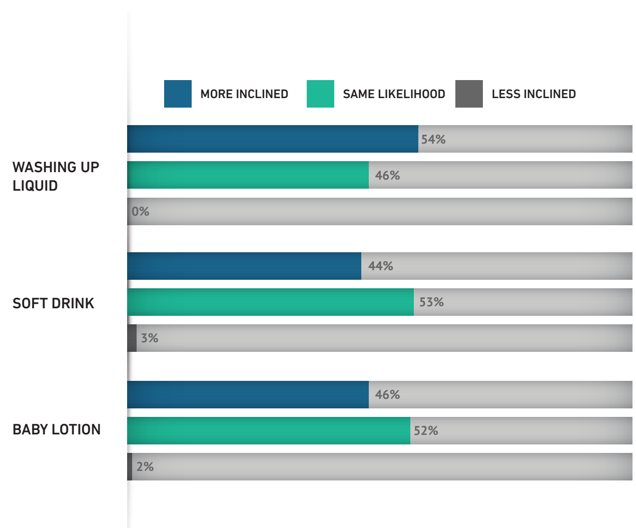
Despite WM's industry control, its lack of marketing experience calls for a strategic partner who can successfully connect with institutional shareholders. AYS's success in mobilizing shareholders as a vehicle for achieving sustainability makes it a suitable partner for WM. AYS will provide WM with the expertise to bring proposals, recommending the usage of recycled plastics for manufacturing, to the stage of a shareholder vote. This strategic alliance will not be one-sided. AYS will reap the benefits of WM's strong position in the industry and ability to communicate the values they both share on a national scale. As an organization committed to transforming corporate business decision-making, AYS has an inherent interest in educating the public as a means to achieving this goal. Given AYS's lack of financial capital limits its ability to do so, joining forces with WM will allow it to raise awareness on a much larger scale.

> *"78% of consumers would feel more positive about a product whose packaging contained recycled plastic."*

Targeting the CPG Manufacturers

Once shareholders intensify pressure on CPG manufacturers to increase recycled plastic content, senior management will be more receptive to trial testing the integration of recycled plastic into the manufacturing process. Traditionally, resistance from manufacturers in using rPET stems from various misconceptions. Companies believe that costly investments in new equipment are needed to facilitate processing rPET or that the quality of their products will be compromised. However a successful trial testing experiment led by the Waste & Resources Action Programme (WRAP) in the UK dispelled these myths. Product trials using significant levels of rPET with corporations such as Coca Cola, Marks and Spencer (M&S), and Boots, have been implemented from sourcing, production, processing, testing, and consumer acceptance. Following successful testing of recycled plastic in M&S's "Food to Go" line and Boots' shampoo and conditioner ranges, with no discernable difference between rPET and virgin packaging, both companies adopted rPET across additional product lines.

INCLINATION TO BUY PRODUCTS PACKAGED IN RECYCLED PLASTIC



Source: WRAP Northern Ireland

WM can use the success stories of corporate rPET trials combined with positive feedback from surveyed end consumers to gain manufacturer buy-in. Consumer surveys revealed that 78% of consumers would feel more positive about a product whose packaging contained recycled plastic. Additionally, almost 50% said they would be more inclined to purchase a product which used recycled packaging. It is evident that using recycled materials in packaging will not deter consumers. In fact, it can improve consumer perception and brand equity in a valuable way.

To provide manufacturers with the means to capitalize on the WRAP trial's positive consumer responses, WM should develop a unique eco-label. This label will serve as a stamp of approval, communicating to end-buyers the manufacturer's positive environmental efforts. Clearly displaying the product's rPET content will draw consumers' attention and enable easy identification between products with rPET and those without. Explicit labelling will increase consumers' association of the product with sustainable practices, therefore enriching brand perception. As more successful trials are completed and new relationships are formed with WM, eco-labels will become increasingly valuable to companies.

Selecting the Right Partners

WM should develop a selection criteria that will allow it to find CPG partners that will be receptive and benefit from the adoption of recycled plastics. These partners would be companies that depend heavily on customer loyalty and brand equity as well as companies who have an existing CSR foundation but have not taken steps towards using recycled plastic.

An example of such a corporation would be Johnson & Johnson (J&J), whose dedication to maintaining a sustainable environment is embedded into its credo. In 2007, J&J began including post-consumer recycled materials in two of its product lines, and with such a diverse portfolio of goods, there is further potential to expand to more product lines in the future.

Locking in the Relationships

Successful trials should follow with renewable, long-term contracts between WM and the manufacturers. Although monthly negotiations are the norm in this industry, both the manufacturer and WM can benefit from the cost predictability and supply assurance that long term agreements provide. Multi-year contracts will balance out the inequity that both high and low oil prices create on either side. This will help insulate WM from volatile commodity prices and deter customers from sporadically switching to and from rPET.

WM should also exploit the strength of its other product segments and offer a bundle of services pairing the supply of rPET with their manufacturing and industrial solutions. Incorporating WM's sustainability or industrial waste services as a supplement to recycled plastic provisions creates a competitive advantage for the company, and decommoditizes the material by competing on elements beyond simply price. These added benefits in a long-term contract align with WM's sustainable value proposition and will encourage CPG manufacturers to choose WM as their recycled plastic supplier over competitors.

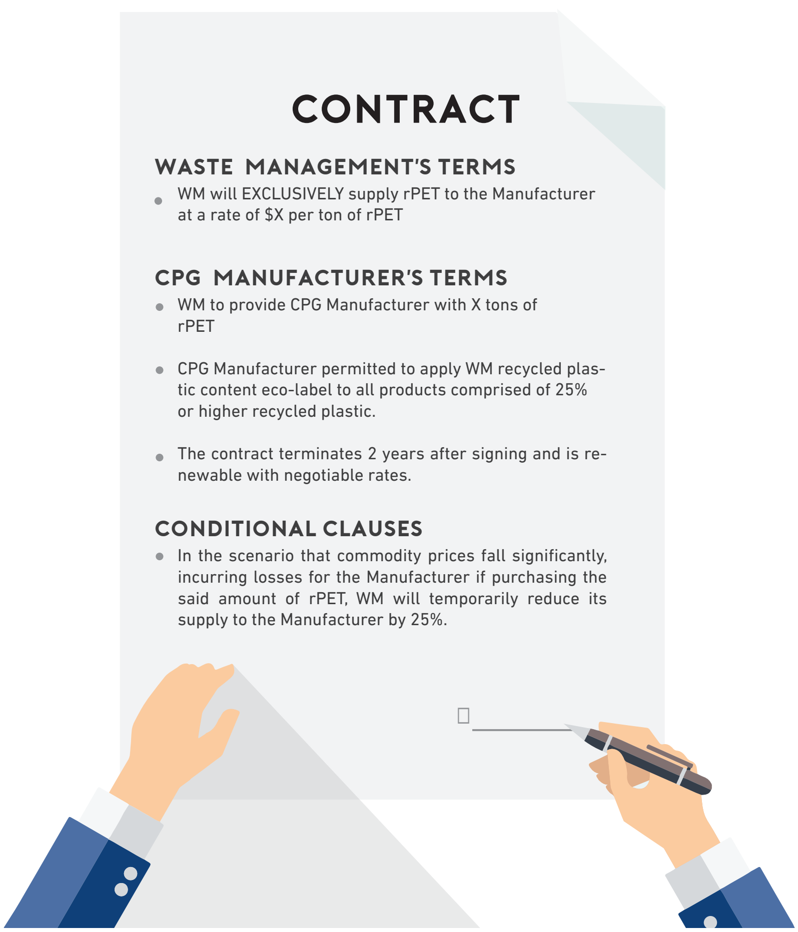
Reaping The Value of Recycling

By gaining large manufacturing clients and locking in existing customers, WM can stabilize the demand for recycled plastic that it sells. AYS provides the expertise to influence top management through shareholder activism, which will increase demand for rPET. WM can move towards decommoditization of recycled plastic through the addition of other value-added services, including a certified eco-label. WM's past recycling success proves this segment can be profitable, and by stabilizing demand, the company will be less susceptible to the volatility of oil prices.

With a strategic partner at its side, WM will be equipped with both the resources and the voice to impact change in the plastic industry. Partnering with AYS will bring environmental reform to life, change business practices, create new long-term relationships with CPG manufacturers, and ultimately bring stability to WM's volatile recycling revenue stream.

> *"By gaining large manufacturing clients and locking in existing customers, WM can stabilize the demand for recycled plastic that it sells."*

SAMPLE CONTRACT BETWEEN WM & CPGs



DIGITAL JUSTICE: IMPROVING ACCESS TO LEGAL SERVICES

LawyerLocate.ca can capture a million dollar opportunity by developing an online legal services marketplace.

Nicholas Avis & Lynn Tay

Equal access to legal services is a concern amongst practicing lawyers and professional associations. High and rising legal costs hinder low-income Canadians from accessing fundamental personal and small business legal services, thus creating a culture of vulnerability. This unsettling picture, however, presents a multi-million dollar business opportunity, where an intermediary can serve to connect lawyers to this underserved market.

My Kingdom for a Lawyer

Most Canadians require legal services at some point in their life, such as for estate planning, real estate transactions, marriage and divorce services, or small business incorporation. Yet, for many Canadians these necessary services are unaffordable. For example, crucial labour employment services, such as reviewing basic employment contracts or severance packages review, cost upwards of $559. Lawyer fees are equally as expensive, costing over $360 per hour for an experienced lawyer—an increase of 12% since 2014.

Provincial governments have tried to increase access to legal services through government-funded legal aid programs. However, these programs only assist people below the Low Income Cutoff. A family of four, for example, must have an income of less than $520 per week (37% lower than the median weekly household income of $825) to qualify for legal aid. This creates an underserved market of Canadians who do not qualify for legal aid, yet are not wealthy enough to seek and retain private legal counsel. This segment has weekly household incomes between $618 to $1766 and makes up 71% of the national population. As such, it is unsurprising to find that 56% of Canadians do not have a will, and less than 15% of Canadians seek legal advice when they are faced with legal problems. This underserved market represents a lucrative business opportunity.

Small Business vs Big Law

Of Canada's 1.2 million small businesses, only 8.1% have a lawyer on retainer. Similar to individuals, many small businesses are unable to afford legal services. Incorporation documents for a simple business carry an upfront cost of $1,070, and the filing of an uncomplicated patent is, on average, $7,100. In the last 3 years, 30% of small businesses have faced unforeseen legal disputes.

NEW LAWYERLOCATE.CA PROCESS

These companies are billed an average of $31,330 for two days of civil litigation, representing a 43% rise from 2014. In comparison, the annual average small business revenue is $675,000 and, at an average profit margin of 5%, this translates into $33,000 in annual profits. As a result, 73% of small businesses are not financially prepared for the cost of unforeseeable legal action. This exposes small businesses to a significant level of liability risk, making them another potential market in need of affordable legal services.

An Online Opportunity

There is an opportunity to create an online legal services platform that will connect lawyers with traditionally underserved Canadians, providing affordable legal services to middle-income households and small business owners.

Increasing access to justice is two-pronged. First, lawyers need a new way of connecting with Canadians who have traditionally not been legal clients. Second, cost concerns must be addressed by maintaining low operating costs and delivering services at discounted prices.

The internet represents an easy and scalable medium to connect lawyers to clients. By transcending geographical barriers, accessibility to legal services can be increased. Currently, 87% of Canadians have access to the internet, and the majority already trust the internet with personal activities, such as healthcare and banking advisory. The legal industry is not unfamiliar with the internet, as the Law Society of Upper Canada and private corporations already use the internet as a medium for facilitating referrals for lawyers. Therefore, transitioning from referral services to digital services is the logical next step in the evolution of the legal industry.

By using the internet as a medium for facilitating legal services, lawyers will be able to enjoy additional revenues without incurring additional operating costs. Offering online services will be attractive to lawyers with excess capacity, as it provides a way for them to earn additional revenue without the need for additional office space or other expenses. Lawyers from a recent year of call, or located in quieter geographies, will be incentivized to offer cost-effective hourly and fixed-fee legal services, without the risk of higher operating costs.

A Case for LawyerLocate.ca

LawyerLocate.ca Inc is the ideal candidate to launch a website that facilitates legal services. The company launched in 2002, and was recognized as Google's first Canadian legal industry partner. LawyerLocate.ca is now Canada's leading lawyer referral website and welcomes an estimated 70,000 unique visitors each month, with annual estimated revenues of $1.9M. These revenues are generated through monthly fees that lawyers currently pay to be listed on the referral database.

Expanding into legal services is a natural adjacency for LawyerLocate.ca. The present legal referral industry is maturing and margins are likely to erode as new start-ups such as Kabuk Law and LawyerLinx compete with LawyerLocate.ca. American referral websites such as Avvo (valued at US$650M) and FindLaw (owned by Thomson Reuters) also represent competitive threats that may enter the Canadian market. These competitive pressures demand that LawyerLocate.ca solidfy its position in the Canadian legal market by developing a platform for online legal services. LawyerLocate.ca has the largest database of lawyers in Canada and can use its exisitng relationships with lawyers to form the legal base of this new platform. Additionally, the site's current reputation can aid in attracting new patrons.

New Platform in Session

LawyerLocate.ca can develop an online legal services platform that facilitates virtual transactions between lawyers and clients. The platform would be an online marketplace where lawyers post their services, clients purchase these services and then rate lawyers following the transaction. In this manner, LawyerLocate.ca is similar to Uber and Amazon, in that it connects independent lawyers with clients. The platform would then provide value-added services, such as secure document transfers, and earn a fixed percentage fee on all sales made.

On LawyerLocate.ca, clients enter their search criteria to generate a list of suitable lawyers for hire. Lawyer profiles and ratings would be available to clients, but lawyer names would be hidden to protect lawyers' ability to charge higher costs to clients they meet face-to-face through their traditional avenues (although names may be revealed after payment).

Once a client chooses a lawyer, they would then enter their personal and billing information. Clients would agree to the cost of the service and would be required to provide payment information upfront. They would then be asked to upload the files necessary for their service, and the lawyer would then fulfill the order. For legal purposes, any communication would be conducted through the platform's messaging service. Clients can then rate their lawyers, which will be valuable to future prospective clients and incentivizes lawyers to provide quality service.

The online platform is limited in the type of legal services it can facilitate, as it will be more conducive to standard form transactions with minimal complications. These include personal wills, power of attorney documents, uncontested divorces, and small business incorporations. Potential hourly-based legal services can include online or phone consultations in order to prepare clients for self-representation in court. In traditional law firms, the aforementioned services are considered to be low-margin and, depending on the firm, avoided. However, lawyers working with an online platform will have lower overhead costs, allowing them to enjoy incremental profits above the current levels. Cannibalization from operating a new online platform can be minimized by targeting online clients from disparate geographies, who would traditionally not have accessed legal services at all.

Mandate for Action

The lawyers targeted by this platform are those with below-average wages or excess operational capacity. These lawyers will likely be employed at small and medium-sized firms, likely in smaller communities, with occasional downtime and an inconsistent client base. Young lawyers trying to gain experience and lawyers that cannot organically grow their client base are the two main target subsets. Approximately 22.2% of the 90,000 Canadian lawyers fit this target profile.

Based on the projected clientele demand, this would require LawyerLocate.ca to capture an additional 7% of the target lawyer market, and require each lawyer to work on one client case every two days. This is a reasonable standard given that most of the proposed services are standardized, and require approximately only two hours of work per client.

The proposed online platform must conform with all fourteen sets of provincial, territorial, and federal regulations governing the legal profession and different aspects of the law. While in all Canadian jurisdictions, an online platform is prohibited from providing legal advice, this platform only facilitates legal services by connecting independent practitioners with clients. To better serve clients, the platform should include lawyers from all 14 Canadian legal jurisdictions to provide services tailored to each locale.

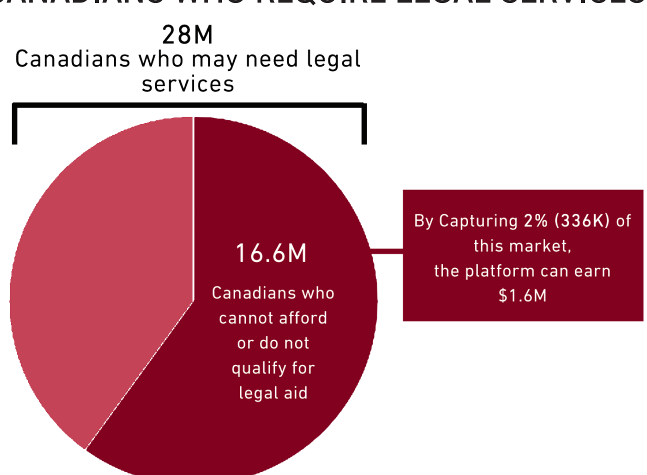
LawyerLocate.ca Inc owns Emspace.ca, a digital marketing firm with the capacity to develop websites. This relationship will provide LawyerLocate.ca with the skills and expertise needed to develop most of the platform. However, there will be additional costs associated with security, due to the sensitive nature of the information shared between lawyers and clients.

The Verdict is In

By charging a fee of 1% on all transactions, it is projected that LawyerLocate.ca could earn an additional $1.6M in annual incremental revenue. Average fees of $150 per hour of legal service, and fixed-fee standard form services of $250, will be on average 50% less than current market rates. Additionally, by continuing to charge lawyers a listing fee for its referral platform, an additional $1.2M in incremental annual subscription fee revenues can be captured. After factoring in costs of marketing, platform development and maintenance, and minimal variable costs, this platform represents a $2.1M annual opportunity for LawyerLocate.ca.

The existing legal industry is accessible to the wealthy and subsidized for individuals below the poverty line. However, it fails to meet the needs of middle-income Canadians. By addressing this market, LawyerLocate.ca has the opportunity to potentially increase profits by 212%. LawyerLocate.ca can cement its industry leadership while also making law accessible to millions of underserved Canadians.

CANADIANS WHO REQUIRE LEGAL SERVICES



Source: Statistics Canada

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