DEBORAH GULLAHER Vice President Marketing Suncor Energy

THE ROAD LESS TRAVELLED Can Harley Davidson



RTB OR NOT TO BE?

Is advertising Bloomberg's next frontier? | 12

TESLA

ROBOSOFT

An ecosystem advantage in an unexpected technology | 33

ENGUARD: THE BATTLE FOR TENANTS

"Smart" solutions are needed to win the fight | 21



Ivey Business Review is an undergraduate business strategy organization conceived, designed, and managed exclusively by students at the Ivey Business School, 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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FROM THE EDITORS

Energy innovation has always been at the forefront of human development. The discovery, or rather control, of fire by Homo Erectus provided light, heat, and the ability to cook plants and animals. By 200 B.C., windmills in China were used to pump water, in addition to grinding grain in Persia and the Middle East. Fast forwarding to 2015, when 82% of US energy demand is derived from fossil fuels, modern society has become dependent on energy for all their technological and personal needs. Scientists and experts the world over have demanded shifting toward environmentally friendly solutions, and while governments and corporations have certainly responded, the resounding agreement is current efforts are simply a precursor to what is required. Who better to direct the vanguard of energy innovation than the bright minds at the Ivey Business School?

"The Road Less Travelled" showcases how Harley-Davidson is missing the opportunity to commercialize its electric bike, Project LiveWire, to help capture a younger generation in the wake of a decline in its loyal baby-boomer customer base. "Enguard: The Battle for Tenants" explores how Morguard Corporation is most susceptible to Toronto's oversupply of office space, and how only smart retrofits to increase efficiency of its lacking assets can help the company attract new tenants. Finally, in the interview with Deborah Gullaher, VP Marketing at Suncor Energy, IBR discusses how the company's corporate-wide focus on sustainability siphons to its downstream division in the form of alternative fuels.

The slow shift to an ecological future is a pressing concern. But the crawl of green innovations is often overshadowed by the success and breakneck pace of other industries. The winter issue also addresses the growth of household robotics, maintaining inputs for global agribusinesses, and the potential for microfinancing in rural Kenya.

As the planet veers forward, Ivey Business Review takes a moment to stop and observe the surroundings. We plan our trajectory using any and all available information and the unconstrained minds of today's most talented individuals. While our end destination is never certain, we can at least plan how to get there.

Each and every step is important, and progress is a journey, never a destination.

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RTB Or Not To Be?

Andrew Kanapatski

Bloomberg can counteract stagnant terminal growth by expanding into the Real Time Bidding advertising market

12

Bunge Needs A New Input

Tim Brady

Bunge Limited can use innovative financing models to mitigate commodity price and supply risk

15

India: Endangered Entrepreneurship Ecosystem

Lily Liao & Jitesh Vyas

Prime Minister Narendra Modi's plan to build 100 Smart Cities in India is overly optimistic. The government should instead invest in reinvigorating the country's entrepeneurial sector

18

Enguard: The Battle for Tenants

Anuraj Naithani

Morguard Corporation is at risk from the rise in supply of office space and needs to consider an intelligent solution

21

The Road Less Travelled

Xiaoya Xu and Karen Yu

Harley Davidson has underestimated the potential of Project LiveWire and needs to pursue strategic partnerships to succeed in the market

24

(Not) Ready for Takeoff

Kenneth Cheung & Dorothy Wong

The Malaysian government 's state fund Khazanah proposes a 12-point plan to restructure Malaysia Airlines. It is important rebranding gets added to the list

Linking The Network

Manpreet Toor and Alex Pires

LinkedIn can utilize recent acquisitions to expand into internal enterprise HR solutions

Robosoft

Tom Grainger and Aditya Challapally

How Microsoft can secure an ecosystem advantage through household robotics development

Organic Growth

Nancy Zhao

Whole Foods has the potential to grow revenues and maintain margins by expanding into food offerings beyond groceries

Finding A Seat In The Connected Car

Carter Friesen & Akil Fernando

Bell must look to practices in the UK to ensure the survival of its radio segment

Mobile Banking: Kenya's Development App

Raheel Jariwalla & Azzam Ramji Safaricom has revolutionized the Kenyan banking system with M-Pesa, but growth still lies in rural merkets





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SILVER



BRONZE



Deborah Gullaher

IBR talks with the VP Marketing at Suncor Energy about the company's focus on sustainability and how alternative fuels will affect the oil and gas industry

IBR: Describe the importance of Suncor's downstream business, under the Petro-Canada brand, to the company's integrated business model?

DG: From a financial standpoint, the downstream business provides Suncor with financial stability and is a key contributor to earnings and cash flow. The integration of the upstream and downstream segments provides an internal market for our products. Within the downstream segment, the majority of our refined product production of gas and diesel goes through our retail and wholesale channels.

IBR: How does Suncor's commitment to sustainability transfer down to the company's downstream division?

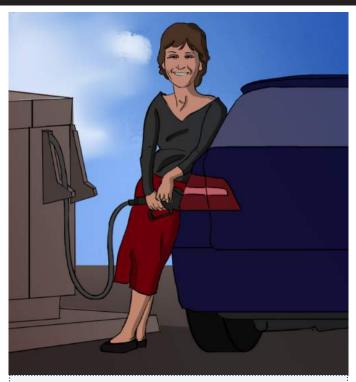
DG: Suncor is a leader in the area of sustainability. In recognition of our commitment to sustainability, we have been recognized by the Chartered Professional Accountants for excellence in corporate reporting. We are also listed on the Corporate Knights' Global 100 index. We participate in several industry forums, such as COSIA (Canadian Oil Sands Innovation Alliance) to improve sustainability for the entire industry.

Internally, we challenge ourselves to have a sustainability mindset in all of our operations. In our downstream segment, this can be seen in the production of environmentally responsible lubricant products, as well as working to reduce electrical and water consumption at our retail facilities through installation of LED lighting and water recycling at our car washes.

IBR: Many studies forecast that gasoline consumption is expected to drop by 2.1 million barrels/day by 2040 in the US. Do you expect a similar trend to occur in Canada, and if so, how is Suncor preparing for this shift?

DG: We are continually monitoring areas that we believe will impact consumption, such as the Corporate Average Fuel Economy (CAFE) standards, alternate energy sources, and demographic trends and the impact these changes have on consumer behavior. It is interesting to note that consumers continue to buy SUVs and less fuel efficient vehicles. We want to meet the needs of our consumers so we will continue to watch the trends and developments closely.

We are proactively planning for gasoline demand decline over the next 10 to 20 years and we are focusing on two main areas of opportunity: gasoline growth in rural markets and diesel growth in retail and wholesale.



Deborah Gullaher Vice President Marketing, Suncor Energy

Since 2011, Deborah Gullaher has held the position of VP Marketing at Suncor Energy, where she is responsible for the strategies, processes, products, programs, and systems related to the Petro-Canada retail and wholesale businesses. Previously Deborah was the VP of Sales, Service, and Operations where she was responsible for the sales and operations of the Petro-Canada retail and wholesale assets; and the VP Rack Forward Merger Integration during Suncor's merger with Petro-Canada, where she lead the integration of the retail and wholesale businesses of the combined entity.

Deborah has worked in the oil and gas industry for 31 years. She was initially hired as a summer student to work for Gulf Canada, which merged with Petro-Canada in 1985. Deborah is an alumnus of the University of Calgary's Master of Business Administration program, receiving her undergraduate degree from the University of Regina.

About Suncor

Suncor is Canada's leading integrated energy company, involved in every segment of the value chain from exploration to retail. Suncor has one of the largest positions in the Canadian oil sands. The company has four refineries that produce approximately 455,000 barrels/day and the refined products are sold through its retail and wholesale business across Canada and in Colorado. Suncor holds a leading position in the retail and wholesale market in Canada under the Petro-Canada brand, as well as a world-class Lubricants business. Suncor additionally operates six wind farms and an ethanol facility.

IBR: Does shifting away from refining oil into gasoline have a negative effect on Suncor's refining operations?

DG: It is difficult for refineries to materially change the ratio of gasoline to diesel that they produce. This challenge exists because the refinery is designed to produce a certain ratio of gas and diesel given the crudes that they refine. The more likely scenario is that we will deal with any supply imbalances through imports, exports, and storage.

IBR: Does Suncor see any new alternative fuels altering the retail market in the next 10-20 years?

DG: We assess various forms of alternative energy sources every year as part of our strategic planning process. We look at multiple factors including type of storage, infrastructure requirements, auto manufacturer buy-in, and consumer trends to determine the likely growth in new energy segments. Out of all of these alternatives, I believe that electricity has the greatest growth potential in retail over the next 20 years.

Electric vehicles are still in their infancy, however. We project that it will take at least ten years for electric cars to make up 3% of new car sales, which is where diesel is today. We are planning to learn more about this area and pilot some EV stations at our retail sites. The reality is that electricity as a fuel still has a significant number of challenges. While there currently is enough generated capacity to support a few charging stations, large-scale adoption could be a challenge for the grid. Additionally, the long charging time is still an issue. The electric market really needs a breakthrough in battery technology. With Elon Musk's new \$5 B battery plant in Nevada, maybe he'll be able to develop something that really changes the game.

"ELECTRICITY HAS THE GREATEST GROWTH POTENTIAL IN RETAIL OVER THE NEXT 20 YEARS."

IBR: How does Suncor plan to price the use of an electric charging station?

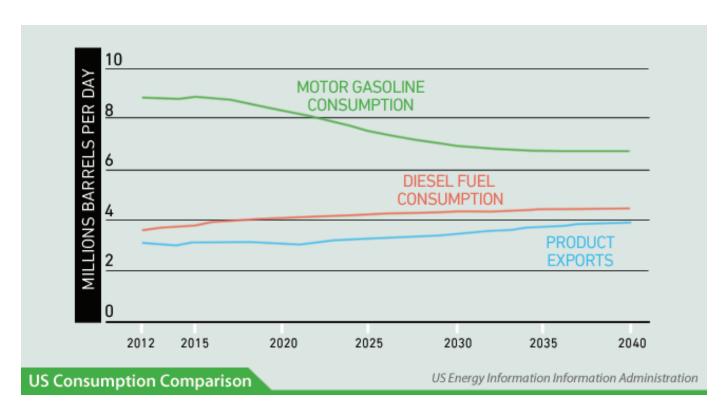
DG: That's is something we will need to work through. We are all still learning and the exact pricing model will develop over time.

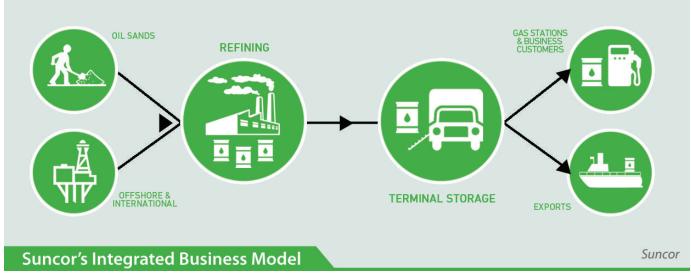
IBR: Stepping away from electrical, new entrants like ENN Canada are selling liquified natural gas a substitute for diesel fuel. Are LNG players siphoning off diesel sales a concern for Suncor?

DG: Suncor does not see LNG as a threat to our fuel business, but rather a potential complimentary product. I should note that LNG has some barriers to adoption, specifically regarding the safety risk to the consumer. There are also technological barriers, including the requirement that LNG fuel be delivered in a specialized cryogenic tank and stored at -100 degrees Celsius when idle.

LNG may have potential in the wholesale market, where long haul, heavy duty vehicles have the size required to justify LNG use. However, we don't expect material growth in this area.

IBR: Can you comment on Toyota's recent announcement of its hydrogen powered vehicle, Mirai, and the company's plan to retain ownership of the fueling stations?





DG: I can't speak to Toyota's announcement, but I can say that predicting the future success of alternative fuels is challenging due to the speed of technology, and its impact on consumer behaviour.

Toyota is not the only auto manufacturer with an interest in hydrogen fueled vehicles. There was a recent article in the Globe and Mail that described Hyundai's desire to develop a fleet of hydrogen fueled vehicles in Canada and they are bringing their Tucson FCEV to British Columbia, where a small infrastructure of hydrogren fueling stations exists today.

On fact alone, it is not obvious that hydrogen technology will have a significant place in the future; there are a number of key obstacles to overcome such as availability, cost of infrastructure, and consumer acceptance. It is an area that we will continue to keep an eye on as Suncor is committed to meeting the fuel demands of Canadian drivers.

IBR: Are there any lessons that can be taken from the failure of propane as a motor fuel that should be considered when growing any of the aforementioned alternative fuels?

DG: Propane is considered an alternative fuel to gasoline and diesel. I believe propane has been negatively affected by the entrance of other, more attractive alternative fuels. Additionally, there has been very limited auto manufacturer and original equipment manufacturer support. Other factors that contributed to its failure include reduced government policy support, trucker legislation, and safety standards. Finally, vehicles require an aftermarket conversion kit to retrofit the vehicle to use propane. Due to these factors, there has been reluctance to invest in significant infrastructure.

IBR: This isn't the first time Suncor has been forward thinking in providing alternative fuels.

DG: Yes, that's true. Suncor is proactive in regards to alternative energies and fuels. The company has been blending ethanol in

its gasoline since 1996, more than a decade ahead of the ethanol regulations in Ontario (est. 2007). In 2006, Suncor opened the St. Clair ethanol plant, the largest ethanol plant in Canada with a capacity of 400 million liters per year. St. Clair is the leading provider for the Golden Horseshoe, Canada's largest gasoline consuming region by volume.

IBR: Do you think growth in alternative fuels interferes with Suncor's desire to grow its presence in the Canadian oil sands?

DG: I don't see alternative fuels having an effect on our upstream business. Taking the fuels we've discussed and others into account, even at their maturity we don't believe they will be material enough to impact our upstream business.

"TAKING THE FUELS WE'VE DISCUSSED AND OTHERS INTO ACCOUNT, EVEN AT THEIR MATURITY WE DON'T BELIEVE THEY WILL BE MATERIAL ENOUGH TO IMPACT OUR UPSTREAM BUSINESS."

IBR: What would you tell a university student who wanted to work in alternative energies, whether retail or infrastructure?

DG: If a student has a passion for sustainability, I think they have a couple of options. They could work for a company who makes that space its core business, such as an NGO. Their second option is to work for a company like Suncor who has a sustainability mindset and business division, but is also passionate about the area and strives to achieve sustainability in its day-to-day business and at all steps in its value chain.

Lastly, those who have relevant experience, whether work, volunteer, or school clubs, will certainly have a competitive advantage when aiming to work in this area of business.



Go ahead. Apply now. suncor.com/careers







RTB OR NOT TO BE?

Bloomberg can counteract stagnant terminal growth by expanding into the Real Time Bidding advertising market

By Andrew Kanapatski

Over the past 33 years, Bloomberg L.P. has achieved tremendous success and has become a symbol of Wall Street and capital markets. However, the company's attempts to fuel growth through price increases, acquisitions, and horizontal integration have done little to help the bottom line. Bloomberg's struggle with profitability for their non-terminal business has been a source of conflict between founder, Michael Bloomberg, and former CEO, Daniel Doctoroff. With changes in management, lack of innovation, and inability to diversify profitably, Bloomberg risks losing its long-term dominance and future growth.

Although Bloomberg has reported a 7.2% revenue CAGR since 2010, its topline growth is primarily attributable to product developments, acquisitions, and increases in terminal subscription prices rather subscription growth in its core terminal business. Furthermore, approximately 85% of its revenue comes from existing terminal subscriptions, which only grew by 1.6% in 2014. Bloomberg's terminal users are concentrated in a handful of industries, exposing terminal-based revenue to specific sector performance. These risks were made evident during the 2008 financial crisis when the subscriber base declined. For example, the collapse of the Lehman Brothers resulted in a loss of 4000 terminal subscriptions causing \$2.2 billion of damage in lifetime value to Bloomberg. To counteract stagnant terminal growth and the associated risks, the company must innovate and diversify its service offerings. Specifically, Bloomberg should utilize its technological and service expertise to diversify into real time bidding (RTB) for online advertisements.

Programmatic Ad Buying

As the speed and reach of web connectivity increases, so does the exposure of individual users to digital advertising. Consumers have become increasingly desensitized to traditional display advertising due to the overwhelming amount of irrelevant ads. As a result, average click-through rates have declined 20% since 2007. Historically, marketers negotiated for media space with suppliers, often arbitrarily deciding a pricing that did not correctly value the audience reached. The typical process involves multiple intermediaries connecting different ad networks, and diluting the value to both the seller and the buyer. However, since 2011, an increased technological capability in programmatic ad buying has allowed buyers to purchase ads based on real-time individual impressions. When a user visits a webpage, an offer associated with the user demographic and behavior information are triggered. Advertisers create algorithms that automatically bid on the offer, and the highest bidder's ad is shown on the user's screen. The entire RTB process, which takes between 80-100 milliseconds, has allowed for appropriate pricing of media inventory and has created a single point of contact for buyers.

Despite the industries infancy, thousands of clients of large technology companies and advertising firms have gained access to this function, resulting in fast growth within the segment by volume. The RTB segment is expected to grow by approximately 380% and reach \$20.4B in annual U.S. spending by 2016. However, this growth does not mean that media dollars are spent efficiently. Many firms spend their budget on programmatic buying, but lack technological expertise

"THE RTB SEGMENT IS EXPECTED TO GROW BY APPROXIMATELY 380% AND REACH \$20.4B IN ANNUAL U.S. SPENDING BY 2016."

to employ appropriate media buying strategies. Bloomberg has the opportunity to capitalize on their existing terminal infrastructure and proprietary speed to dominate this lucrative market. By utilizing its core competencies in technology, Bloomberg can enter into the RTB segment and capitalize on converting passive programmatic media buyers into active ones. This could increase additional revenue contribution and augment Bloomberg's currently stagnant terminal subscriptions revenue.

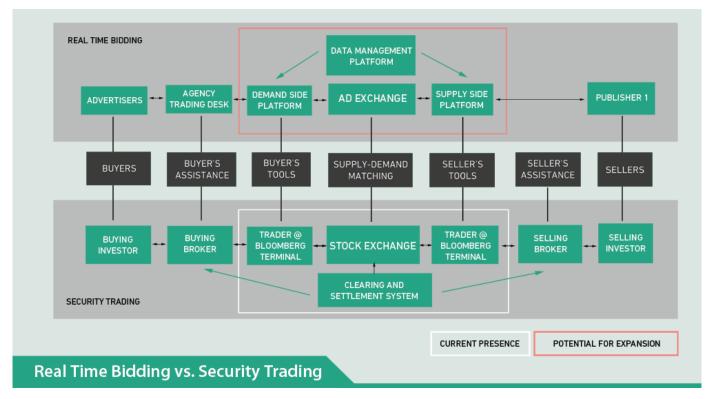
Why Bloomberg?

Successful traditional advertisers are not necessarily successful programmatic ad buyers. The best traditional advertisers focus on service-based revenue generation, competing on creativity and customer service. RTB players, in both sell and buy-side roles, succeed by developing superior products and competing on user interface, connectivity speed, tracking and reporting capabilities, and the quantity of available tools. Traditional advertisers realize their misalignment and have acquired companies across the value chain to compensate. The three largest advertisers (WPP, Omnicom, and Publicis) have acquired Xaxis, Accuen, and Vivaki respectively; however, only Publicis' platform acts as an ad exchange and exists across the value chain. Publicis allows its clients to get access not only to demand-side

solutions, but also to services that match buyers and sellers. However, the initiatives stem from Publicis' strategic initiatives as an advertising company focusing on client acquisition and services offerings rather than the quality of technology offered.

Bloomberg is in an advantageous position as it has both product and service expertise. Bloomberg currently provides thousands of traders direct market access to buy and sell securities through its terminals. Brokers use Bloomberg's software and network capabilities to make buying decisions and submit bids to capital markets exchanges. This process is further supported by news, research data, and auxiliary services provided by Bloomberg. This core part of Bloomberg's business model works remarkably similarly to the RTB market. Upon entering, Bloomberg could offer software, data, and service solutions to ad clients when they submit their bids to ad exchanges.

Bloomberg's core competency in data vending is extremely valuable in the long-term. Currently, many cloud RTB players operate at speeds too low to deliver customer orders within a short timeframe. Bloomberg's existing network allows direct hardware-to-hardware connections that ensures faster speeds and reliable large scale bid submissions. When advertisers bid on media inventory, the bid algorithms can include hundreds of parameters, thus increasing the number of data points per bid. The ability to move large amounts of data efficiently can provide Bloomberg users an opportunity to perform more data analysis per unit of time. This speed increase makes Bloomberg's offering a more attractive opportunity to advertising agencies that win customers based on clicks and conversions generated. Additionally, the ability to move large amounts of data efficiently can provide Bloomberg users an opportunity to perform more data analysis per unit of time. Larger volume of analysis done

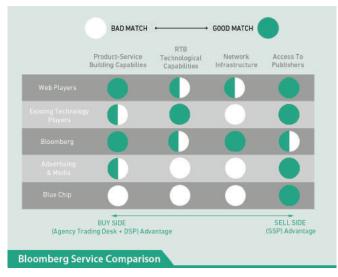


via RTB and Bloomberg specifically can result in more targeted advertising campaigns.

Bloomberg has achieved such high adoption of its terminals because of its excellent relationship-building and customer support skills. Unlike its competitors, Bloomberg has mastered client relationships and support with its 24/7 help service, an asset which will help Bloomberg to become a successful product-service bundle player. Given RTB buying complexity and the opacity of the market, service bundling is extremely important. Advertising agencies lack the product expertise, while technology players lack the service expertise. Through offering a bundled service, Bloomberg will easily be able to gain market share and revenue at the expense of competitors.

Bloomberg's Media Business

Although Bloomberg's media business does not contribute significantly to its financial performance, its media outlets are a significant advantage in the RTB business. Bloomberg is able to offer its own inventory at a discount and still make significant margins on each ad sold, instead of allowing exchanges and other data intermediaries to increase the cost of advertising. Additionally, Bloomberg's primary audience consumes financial information, making these consumers the highest premium market in the digital advertising industry.



Bloomberg's Best Bet

Bloomberg has operational strengths that can allow the company to launch RTB offerings faster and more efficiently than competitors. This expansion will occur in three stages.

Phase 1: Fill in the White Spaces

Despite Bloomberg's strong development and deployment capabilities, it is costly and time-consuming to develop advertising technology solutions. It is easier to use Bloomberg's development capacity and channel it through an existing player.

The development should start through several acquisitions in order to obtain intellectual property rights and human capital. Bloomberg should acquire a small existing demand side player, and a data management player. To obtain a competitive price advantage, Bloomberg should also acquire an ad exchange to be able to sell its media inventory. The company will be able to utilize its M&A experience through Bloomberg Beta, a venture capital fund backed by the company, to drive these acquisitions. Afterwards, Bloomberg can use those acquisitions and build a programmatic ad buying platform in-house and then use its platform to buy and sell advertising space for clients.

Phase 2: Focus at Home

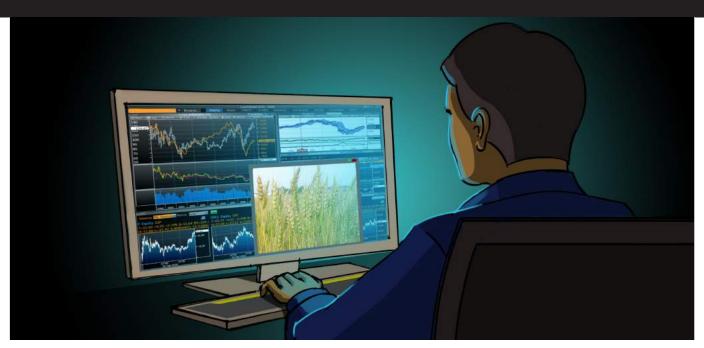
Bloomberg can pilot this offering with its existing financial services client base. With Bloomberg's RTB price advantage relative to the ~7% margin charged by ad exchanges and access to financial buyers, the company's logical first customers would be the marketing departments of financial institutions. Given the presence of Bloomberg terminals at all major financial institutions, the terminals can be used as a quick and cost-efficient distribution for the new service offering. Alternatively, prior relationships may allow for the sale of additional terminals to marketing departments with RTB and other analytic capabilities.

Phase 3: Everyone's Advertiser

Bloomberg should sell its programmatic ad buying service to advertising agencies and large corporations as a substitute for an in-house approach. This option would work similar to the subscription model used to sell its terminal services. The company acts as the Agency Trading desk, Demand Side Platform, and Data Management Platform, essentially offering an all-inclusive offering that purchases advertising programmatically. Bloomberg has an opportunity to generate revenue from the subscription sale of its product offerings and through transaction fees.

Ad-ing It All Together

With approximately 85% of its revenue coming from existing terminal subscriptions, Bloomberg remains highly exposed to both disruption and economic risk. Pursuing an RTB strategy in the programmatic advertising segment will diversify Bloomberg's product offerings and lead to increased revenue growth for the firm. This strategy will utilize the firm's core competencies in data analytics, media, and product service bundling, allowing Bloomberg to obtain a strong position in this young, fragmented market and ensure future growth. Pursuing this strategy should produce a base internal rate of return of 30% for Bloomberg, thereby ensuring that the firm continues to remain a profitable market leader for years to come. A shift to RTB, like Bloomberg's core business, will ensure the company be 'neither a borrower nor a lender', yet will have a strong involvement in every transaction.



BUNGE NEEDS A NEW INPUT

Bunge Limited can use innovative financing models to mitigate commodity price and supply risk

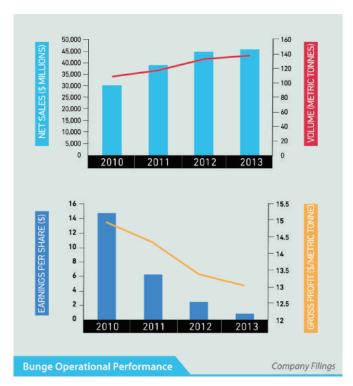
By Tim Brady

Bunge Limited is a global agribusiness and food company that buys, stores, transports, processes, and sells various agricultural commodities. In 2013, the company operated in over 40 countries around the world and earned revenues of \$61B. Bunge operates in five reportable segments, of which agribusiness is the largest, comprising approximately 75% of the company's aggregate revenue. The company's agribusiness segment is a leading global oilseed, vegetable oil, and protein meal producer with production assets in North and South America, Europe, and Asia. Historically, this segment has principally sourced and processed soybeans, rapeseed, and canola.

Of late, Bunge's operating results have been directly affected by ongoing transportation issues and volatile commodity prices that have inhibited the company's access to inputs. As a result, Bunge's agribusiness has experienced a 43% year over year decrease in net income and the overall company has seen its EPS fall from \$6.23 USD in 2011 to \$0.90 in 2013. If Bunge is to combat the pernicious effects of sourcing and transportation risk that continue to plague margins in its agribusiness segment, the company will need to solidify its access to commodities. Furthermore, given the inherent commodity price risk prevalent in Bunge's business, any alternative the company pursues should ensure it is purchasing raw materials at favorable prices and minimizing their commodity risk exposure.

(Agri)Culture-Shock

Recent market dynamics have had dramatic adverse effects on the operations of crop processors. Consecutive record soybean and corn crops in the United States have resulted in oversupply,



significantly hindering the agribusiness industry at large. The oversupply of soybeans and corn coupled with transportation bottlenecks has led to large inventories, resulting in significantly strained cash-flow conversion for farmers. Furthermore, the surplus of soybeans has caused prices to decline to \$1,040 from a high of over \$1,500 this year, eroding farmers' profitability. This has made farmers hesitant to monetize their crop, contributing to the significant supply-side pressure the sub-industry is facing.

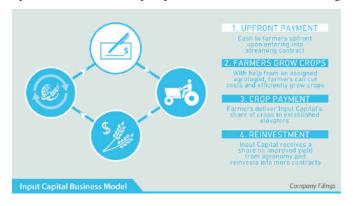


These problems extend beyond the United States, as other international sources of soybeans are also reluctant to export crops. Argentinian farmers, who collectively represent the third largest exporter of soybeans, are beginning to hold onto their crop to offset the rapid inflation prevalent in the country. This illiquidity has restricted Bunge's access to key raw materials and has negatively affected the agribusiness' bottom line. If Bunge is to better position itself to be profitable despite these systemic risks, it will need to find a way to guarantee access to affordable raw materials in order to improve throughput and capacity utilization.

The most obvious option to combat the issues of supply and price risk in commodities would be to purchase forwards. However, forward contracts offer no upside in yield, and often possess unfavorable terms. Rather than speculate on commodity prices through the use of derivatives, Bunge can employ a strategy that has been commonplace in the mining industry for decades - streaming contracts.

Streaming 101

Streaming contracts are an alternative form of financing in which the lender holds the option to buy a portion of the borrower's assets as they are produced over time. The lender will deploy a majority of the capital at the beginning of the contract, with the remaining funds being paid as assets are delivered. These alternative lenders offer a form of non-dilutive financing to companies without increasing its leverage. Historically, streaming contracts have been concentrated in the mining and oil and gas sectors, as they require significant amounts of upfront investment. Despite previous consolidation, streaming



contracts are beginning to diversify, as new industries are demanding alternative financing options.

Recently, an innovative Canadian firm has sought to address the market imbalance and provide farmers with flexible financing. Input Capital is the first agricultural streaming company and has entered into canola streaming contracts with 21 farmers to date. Input deploys capital to canola farmers in exchange for future crops at a fixed, discounted price over a six-year contract. Furthermore, farmers are provided access to an agrologist to help grow the best possible crop. For the lender, this arrangement offers guaranteed crops with the option for additional rewards when a farm performs exceptionally, in exchange for providing upfront capital to farmers. Moreover, the flexible nature of the financing allows farmers to better navigate their capital requirements, lower costs, improve efficiency, and capitalize on changing market conditions without being restrained by burdensome covenants typical of bank debt.

"INPUT DEPLOYS CAPITAL TO CANOLA FARMERS IN EXCHANGE FOR FUTURE CROPS AT A FIXED, DISCOUNTED PRICE OVER A SIX-YEAR CONTRACT."

Notwithstanding its initial success and future potential, Input does not possess the necessary scale and financing to enact market change or consolidate a significant portion of the industry. The company's market capitalization is less than \$200M, while it current contracts represent 0.19% of the canola market in Western Canada alone. With additional scale and financing, not only would Input Capital be able to continue to unlock value in the canola market, but it would also have the capacity to expand this business model to other crops and other geographies.

Capital-izing on Vertical Integration

In order to combat its recent sourcing calamities, Bunge should pursue an acquisition of Input Capital. Despite Input Capital's expected receivables of canola currently representing an insignificant percentage of the tonnage required for Bunge's

agribusiness, Input provides Bunge with an extensive business platform to utilize for potential growth. While Bunge could choose to replicate Input's business model without making an acquisition, this type of venture is far removed from Bunge's core competencies. Input Capital's management expertise and history of success in agricultural finance are significant advantages to the proposed acquisition. Furthermore, this new business model could revolutionize Bunge's raw material sourcing, solving a problem that has plagued the company for years.

The most valuable assets that acquiring Input Capital would provide Bunge is Doug Emsley and Brad Farquhar, Input's CEO and CFO. Doug Emsley and Brad Farquhar were both founding partners of Assiniboia Farmland LP, a fund that owned wheat, barley, and canola producing farms in Saskatchewan. Assiniboia was sold to the Canadian Pension Plan Investment Board in 2013 after generating over a 19% annual IRR since 2005. Moreover, John Budreski, a special advisor to Input, is a director of Alaris Royalty Corp. and Sandstorm Gold Ltd, which both have similar business models to Input's and have returned over 300% and 150% to shareholders since inception, respectively. Their collective expertise in agribusiness and alternative financing will help Bunge to bridge the competency gap between its current agribusiness expertise and the expertise required to successfully operate an agriculturally focused alternative lending practice.

"THE MOST VALUABLE ASSETS THAT ACQUIRING INPUT CAPITAL WOULD PROVIDE BUNGE IS DOUG EMSLEY AND BRAD FARQUHAR, INPUT'S CEO AND CFO."

Input Cultivation

Bunge's larger access to capital and cheaper financing alternatives would allow Input to scale rapidly beyond its current business, which amounts to 35,000-40,000 base tonnes contracted and \$42.5M of deployed capital. Bunge has \$742M of available cash and \$4.4B of unused capacity in its credit facility. Furthermore, Bunge is in the process of trying to sell its Sugar & Bioenergy assets. Collectively, these assets have a book value of \$2.0B and a replacement value of \$3.0B and would significantly boost the company's available capital that could be deployed through streaming contracts. Overall, Input Capital can help to unlock significant value to Bunge by limiting its commodity supply/price risk and guaranteeing production capacity. With Bunge's assets and financing, the company could utilize Input Capital's business model to sustain its current input sources, diversify across multiple different crops, and expand into new markets.

An 'Input' Problem

Through acquiring Input and integrating vertically, Bunge could fix its raw material costs over the lives of streaming contracts deployed, thereby substantially hedging the commodity risk inherent to the industry. Hedging its commodity exposure would provide Bunge with increased visibility for future costs, granting the company greater lead-time to react to market dynamics. Additionally, Bunge could greatly reduce its international operational risk by deploying capital into countries suffering from distressed credit markets. Currently, Bunge's South American assets are responsible for 36% of its agribusiness production capacity. However, both Brazil and Argentina are suffering from market dynamics that are restricting Bunge's performance.

"BUNGE'S SOUTH AMERICAN ASSETS ARE RESPONSIBLE FOR 36% OF ITS AGRIBUSINESS PRODUCTION CAPACITY."

In Argentina and Brazil, there are limited third-party financing sources available to farmers. Bunge currently provides financing to some of its farmers, but the advances are limited and far shorter in nature. As a result of these underdeveloped credit markets and prevailing industry dynamics, Bunge is currently experiencing the lowest level of forward selling of new crops in Brazil in years. Furthermore, despite the decline in agricultural commodity prices, Argentinian farmers are holding onto crops as a hedge against inflation and currency devaluation. Through Input Capital, Bunge would be able to alleviate its sourcing problems in South America by providing farmers with the capital they need via longer term streaming contracts. Deployed capital would fix Bunge's raw material costs over the lives of the streaming contracts and would guarantee commodity sources, thereby optimizing capacity utilization and substantially hedging commodity risk. Moreover, the company could limit its exposure to spot or near spot supply markets and earn a strong return on capital.

The Stronger Final Input

Recent headwinds have dampened Bunge's operating results, as the company cited increased transport costs and volatile commodity prices among the reasons for its underperformance. Integrating Input Capital into Bunge's business would allow the company to secure future commodity inputs. This will ultimately help mitigate operational risk and decrease the impact of commodity price fluctuation, specifically in South American markets. All that the \$13B agriculture giant needs is Input Capital – a \$200M alternative lender.



INDIA'S ENDANGERED ENTREPRENEURSHIP ECOSYSTEM

Prime Minister Narendra Modi's plans to build 100 Smart Cities in India is overly optomistic. The government should instead invest in reinvigorating the country's entrepreneurial sector

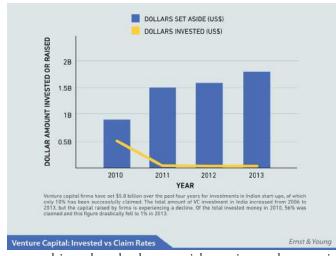
By Lily Liao & Jitesh Vyas

Over the last decade, India has attracted over \$84B US in private equity with only a third of these investments showing a positive return. As a result, private equity firms' exposure to Indian investments has decreased by 31% since 2011, and in some instances, firms have pulled out of India entirely . On the other hand, venture capital firms have set aside \$5.8B for the purpose of investing into Indian start-ups over the past four years, of which only 10% have been successfully invested into emerging businesses. This clearly shows how a large portion of investment dollars that were once available to entrepreneurs are now being allocated to other investments.

To address the combined issues of declining investor confidence and emigration of India's talent overseas, the newly elected Prime Minister of India, Narendra Modi, has proposed a "Smart Cities" initiative. Smart Cities could benefit India by developing crucial infrastructure; however, the initiative is poorly-timed and the benefits are largely theoretical. If Modi's goal is to regain investor confidence, solve brain drain, and better utilize human capital – India should instead look to invest in the groundwork for a sustainable and pro-entrepreneurship ecosystem. This will attempt to jump start India's once impressive GDP growth rate, which has fallen from 10% in 2010 to 5% in 2013.

Smart Cities

A Smart City is a municipality that uses digital technologies to improve urban processes such as transportation, water distribution, waste management, and energy systems. Given the rapid urbanization of India, Smart Cities are seen as a



way to drive urban development, job creation, and economic growth while improving living standards. The hope is that with increased opportunities in urban centres and a more innovative and technology-driven environment, India's brain drain will also slow down. The current plan is to build 100 Smart Cities at a cost of \$1.2T over 20 years. The Government of India has so far allocated \$1.2B in 2015 – or a mere fraction of the total cost – to start the development of Smart Cities in the Delhi-Mumbai Industrial. It is safe to assume that Modi sees this project as a foreign investment opportunity in India; however, this seems infeasible given the large sum of inflows which are required to fund the project and the slowing private capital market.

Modi justifies the feasibility of the Smart Cities initiative based on the success of similar initiatives such as Malaysia's Smart

"THE GOVERNMENT OF INDIA HAS SO FAR ALLOCATED \$1.2B TO START THE DEVELOPMENT OF SMART CITIES IN THE DELHI-MUMBAI INDUSTRIAL."

City in Kuala Lumpur. In reality, these two projects are quite different. Malaysia has ideal conditions for a smart city and its expansion by 2020 is expected to produce a sustainable real GDP growth rate into 2050 of 5.8%, as well as attract \$444B in foreign investments. In contrast, India's economic and demographic profile does not match these ideals. Delhi still has at least 20% of its residents living in "identified" slums despite having the highest per capita annual income of \$3,254 - only 18% of Kuala Lumpur's. The Smart Cities concept works best in service sector dominated areas where digital technologies add the most value, exemplified by Kuala Lumpur where their service sector represents 83% of their economy. Chandigarh and Delhi are two state-cities where the service sectors are 85% and 82% respectively, however the remainder of India's 27 states average a service sector size of only 49%. A poor fit exists for Smart Cities in most of India where the majority of states are still heavily focused on agriculture and industrial manufacturing.



In order to have a successful Smart City implementation in Delhi, a high level of involvement from the government is needed for successful public-private partnerships. These efforts have historically failed in India, particularly with infrastructure. For example, the failure of a public-private partnership in the Mumbai metro project led to a four year delay in its completion and doubled the cost from \$382M to \$697M. Other infrastructure failures include the new express-train in Delhi and the new power plant in the west of India - all poor precedents for the success of Smart Cities.

Brain Drain Phenomenon

Brain drain is the movement of highly skilled and qualified people from one country to another, often for the purpose of better working conditions and higher salaries. The Government of India estimates that there are currently 30M highly skilled people of Indian origin who have left the country to work overseas. The emigration of computer experts to the United

States alone results in a loss of \$2B a year for India. This suggests that India has difficulty retaining top talent, stemming from issues with its education system and a lack of employment opportunities. Students are discouraged by high entrance cut-off grades that near 100% at the best Indian post-secondary schools, and choose to go abroad instead. The Indian Institute of Management-Bangalore found that students pursuing post-secondary education abroad has increased by 256% in the last 10 years. These students then tend to stay in these countries after being exposed to better wages, facilities, and a better quality of life.

Better Opportunities in Entrepreneurship

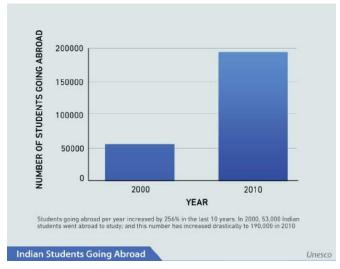
The best strategy for India to jump start its economy is to invest directly in its entrepreneurial ecosystem. Though India has the spirit and propensity for entrepreneurship, the country lacks the ability to organize the resources to run successful startups. Resources such as management assistance, financing, and shared office spaces are commonly available to entrepreneurs in both the US and India, however the US has a long-term new business failure rate of 65% compared to India's at 90%.

The major gap in India's entrepreneurial ecosystem is product commercialization. Many start-ups fail since there are few established incubators which support them in bringing prototypes to market. Currently, there are only 120 incubators for all types of entrepreneurship in India and they are all sponsored by the government and affiliated to educational institutions. In comparison, the US has 178 incubators specialized in technology alone; all sponsored by different venture capital, university, corporate and government organizations. To improve its start-up success rate, India will need to model its venture incubation programs similar to the US and provide better resources to its entrepreneurs.

"CURRENTLY, THERE ARE ONLY 120 INCUBATORS FOR ALL TYPES OF ENTREPRENEURSHIP IN INDIA AND THEY ARE ALL SPONSORED BY THE GOVERNMENT AND AFFILIATED TO EDUCATIONAL INSTITUTIONS. IN COMPARISON, THE U.S. HAS 178 INCUBATORS SPECIALIZED IN TECHNOLOGY ALONE."

Countries with strong entrepreneurship ecosystems, such as the U.S. and Israel, have fewer issues in bringing products to market. Tel Aviv's entrepreneurship ecosystem flourishes due to a strong focus on networking, risk taking, and government support. The US government recognizes the importance of entrepreneurship

to the economy, and is showing fiscal support through two \$1B funds from the Small Business Administration to match private venture capital invested in high-growth companies.



A Step by Step Guide for India

Incentivizing Mentorship

Indian high-skilled immigrants made up 64% of 2012 US H-1B work visas. Retaining these bright individuals is the first step in India's entrepreneurship action plan. To achieve this, the Indian government needs to directly reach out to both successful Indians in India and overseas in order to strengthen its mentorship network. The goal is for mentors to provide new entrepreneurs with guidance and help them network in exchange for a small equity percentage in their companies. With proper mentorship, more incubated start-ups can become investment grade and attract investment and support from overseas.

Providing Computing Power

India's IT industry is poised for growth, given that in 2013, 69% of all new start-ups provided some form of web service. The market size for outsourcing digital technologies to India for social, mobility, analytics, and cloud (SMAC) is set to increase by a compound annual growth rate (CAGR) of 21% into 2016, with the total contracts valued at \$287B.

The government needs to support entrepreneurs and help them deliver on the large opportunity to meet the demand for IT services. The concept is called "Cloud-Sourcing" – a term conceptualized by Canadian company Cybera – offering 0.5TB of Rapid Access Cloud in order to enable Calgary start-ups free cloud computing resources. Cloud infrastructure stands as one of the largest costs for a web service company. For perspective, a simple 10 user network could cost between \$5,000 and \$12,000 annually in the US. The data centre strategy is to reduce the amount new companies need to gather funding, validate ideas, and create prototypes. By lowering the barriers to entry in IT,

more entrepreneurs can test their ideas, ultimately increasing the number of successful start-ups.

A capital budget was developed to determine the cost of developing a data centre to meet the requirements of new tech companies over the next ten years. The number of tech startups is projected to grow in India by 25% annually. For the first five years of the project, \$45M is required to construct the data center with total maintenance costs of \$67M. Calculating a present value of the 10 year project, India will invest \$465M of the \$1.2B earmarked for the Smart Cities initiative in a central data center to house data for start-ups, completely free.

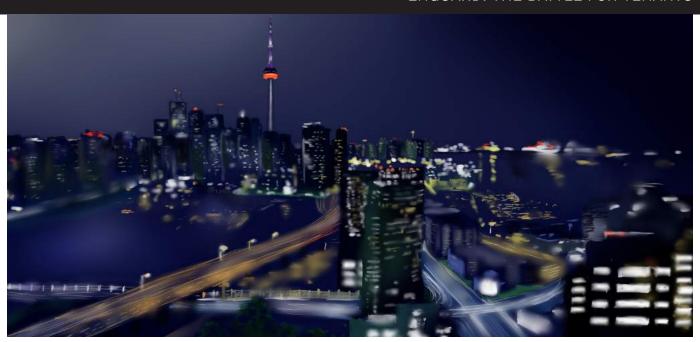
Building Incubators

Incubators help start-ups survive the early stages of development when they are most vulnerable. A great example of a successful incubator program is a recent ongoing initiative spearheaded in India by NASSCOM, called 10,000 Start-ups. The most recent session took 9,000 applicants and 16% were deemed investment grade. With support from Google, Amazon and Microsoft, this incubator in Bangalore supported a cohort of 150 companies and provided them with \$25,000 each in accelerator support, mentorship and angel funding. The \$735M balance of the Smart Cities budget should fund projects of this nature and other incubators for a variety of industries. Assuming a conservative per start-up cost of \$30,000 similar to the 10,000 Start-ups program, over 24,000 grants could be awarded. Considering India's current business success rate of 10%, 2,400 impactful businesses can be started. As more new companies work with incubators, the success rate could easily double.

Increasing the effectiveness of entrepreneurship is important for India's socio-economic development. In 2012, Endeavor reported that the average high-impact entrepreneur generates 30 more jobs than the average comparable company. Investing in entrepreneurs will have tremendous economic impact for India. The government can add hundreds of thousands of new jobs in high growth industries.

The Key to India's Long-term Success

By developing a mentorship network, providing free data solutions to start-ups, and building more successful incubators programs, India has the potential to sustainably grow its economy. In doing so, India can once again produce investment grade start-ups and attract venture capital funding sources. This will create a new and exciting market for foreign direct investment in India. Instead of investing in an overly ambitious Smart Cities initiative that is poorly timed and highly risky, Modi's priority should be to improve the existing entrepreneurship ecosystem and raise the living standards of the nation as a whole.



ENGUARD: THE BATTLE FOR TENANTS

Morguard Corporation is at risk from the rise in supply of office space and needs to consider an intelligent solution

By Anuraj Naithani

Smart cars, smart grids, and smart appliances - multiple facets of people's everyday lives are moving toward smart technology. It therefore makes sense to add some intelligence to the one location newly graduated analysts will be spending the vast majority of their time. Imagine walking into the office after getting stuck in traffic and being able to control the heating and lighting from your smartphone, having already notified your colleagues through an internal enterprise network about being absent at the meeting. All this is achievable in a "smart building". A smart building uses distributive control system technology to connect processes and systems within an office space and make it easily controllable by users through the internet. It improves the experience of people within it and increases their productivity, while also reducing operating costs. This represents a growing opportunity for real estate management companies to offer superior workplace environments for their tenants.

Within the next four years, the Greater Toronto Area (GTA) is expected to face an oversupply of office space. As a result, competition in the industry, particularly in the downtown periphery, will become increasingly fierce, with property managers battling to retain existing and attract new tenants. In particular, Morguard Corporation is already beginning to fall behind with much higher vacancy rates than its competitors. Management has been satisfied to-date with their strategy as mainly a Class B player, although with some of its properties already becoming unprofitable, Morguard needs a strategic shift if it hopes to see a rise in tenants and a more profitable commercial portfolio. In order to become competitive, Morguard should retrofit existing office buildings and make

them "smarter", with the main intention of improving tenant experience and lowering operating costs.

Developments in Office Real Estate

In the last 14 years, Toronto has seen almost a 15% increase in office space supply and expects an additional 4% increase in the next four years. Historically, Toronto net office space absorption rates have remained steady when compared to growth and have not resulted in a shift in vacancy rates. However, these trends are changing and growth in supply is forecasted to outpace demand. The increase in vacancy rates is expected to be most prominent in the peripheral GTA region. While the GTA's current average office vacancy rate is at 9.4%, the peripheral office buildings are as high as 12-13%, compared to the financial district with 6.5%. The disparity is a result of large corporations moving their offices downtown, away from the suburbs, in order to retain superior talent that prefer to live and work in the downtown core. Differences in vacancy are also seen in the quality categorization of office buildings into Class A, B, or C. While Class A properties have been shielded by the

"WHILE THE GTA'S CURRENT AVERAGE OFFICE VACANCY RATE IS AT 9.4%, THE PERIPHERAL OFFICE BUILDINGS ARE AS HIGH AS 12-13%, COMPARED TO THE FINANCIAL DISTRICT WITH 6.5%."

relative inelasticity of premium office space, the vacancy rates of Class B and C buildings have been particularly affected by the increase in supply.

In a battle to retain existing tenants and attract new ones, property managers in the GTA have been retrofitting many of their commercial buildings to make the office spaces more cost effective by improving the building's operating efficiency. Specifically, LEED certification has become a standard for tenants as it indicates a property's commitment to sustainability through a rating for building design in six categories, including water efficiency, indoor environmental quality, and innovation in design. With the change in landscape and new retrofits being completed, competing in the GTA office property segment becomes increasingly difficult.

Morguard Corporation

Morguard Corporation (Morguard) invests and manages properties in North America with a diversified portfolio valued at more than \$15B. A third of its properties fall under the office and industrial segment, and 75% of these properties are located in Ontario. Traditionally, Morguard has performed well, largely due to the strength of the real estate market, despite having been slower than competitors to retrofit their existing buildings. Recent industry pressures in the GTA have started to negatively affect portfolio performance, with some of Morguard's building vacancy rates showing double to triple the rate of the leasing district average. The office and industrial segment has already begun to seen a decline in net operating income per gross lease area (sq. ft.) to \$13.2 in 2013 from \$14 between 2009 and 2012. Given that Class B properties make up the majority of its portfolio, this figure will be further affected as real estate supply continues to increase.



Morguard has two existing office properties located in Mississauga: 33 and 201 City Centre Drive. The buildings are aged, with the highest vacancy rates to similar buildings in the area, despite comparable leasing rates. Mississauga has seen a greater increase in supply of office space in 2014 compared to any other year within the last decade. Due to the oversupply, vacancy rates in the GTA West region are predicted to continue increasing, putting 33 and 201 City Center Drive further at risk. Similarly, many other properties in Morguard's portfolio are experiencing the same challenge. Morguard needs to find a way to differentiate its properties to improve its bottom line.

A deal with Cisco Systems

Cisco Systems is the only enterprise networking company of its size in Canada currently providing end-to-end real estate solutions through its Smart + Connected Real Estate team. Its technology connects all existing endpoints from both the informational technology and the building automation systems. This convergence of systems onto a secure, highspeed optic fiber from their relative disparate networks forms the basis of a smart building, connecting "everything" within a building. The building will be able to monitor and react to system changes in real time, seamlessly change the internal environment, network with the external environment, and optimize its own performance. Connecting people, processes, and data in a building over the internet can benefit tenants in a variety of ways. Tenants can increase staff efficiency through automation, personalize their preferences, and monitor lighting and other systems to reduce energy consumption. Additionally, these efficiencies have the potential to create significant cost savings.

"MISSISSAUGA HAS SEEN A GREATER INCREASE IN SUPPLY OF OFFICE SPACE IN 2014 COMPARED TO ANY OTHER YEAR WITHIN THE LAST DECADE."

Retrofitting Morguard's properties by contracting Cisco Systems to make them smarter will differentiate its buildings from those of its Class B competitors while decreasing operating costs, providing greater incentive for new tenants. Morguard should start by retrofitting 33 City Centre in Mississauga to test the economics of the project. This property has one of the highest vacancy rates in the area of any building its size. The last retrofit completed was eight years ago, and was primarily focused on interior design. According to the Journal of Sustainable Real Estate, the gross cost of a retrofit of all major energy systems for a 500,000 square foot office building ranges \$10-\$20 per square foot, with a premium of \$3-\$31 for a deep retrofit. Indeed, a smart retrofit solution does not involve significant capital compared to typical retrofits and new construction. This venture can be easily financed with Morguard's current cash reserves as its cash flow from operations have been increasing steadily since 2009. Morguard's ability to integrate smart technology into their properties will be the key to decreasing vacancy rates and driving profit.

The Intelligent Solution

As 33 City Centre was built in 1977, many of its existing mechanical, electrical, and plumbing systems are aged, and operate as independent units; there is little connectivity and communication between the systems causing vast room for improvement. The base components for 33 City Center would be

integrated using a core fiber optic network enabled by routers, switches, and wireless technology. Additional Cisco Systems hardware and software would play an integral part in making a building smart, including:

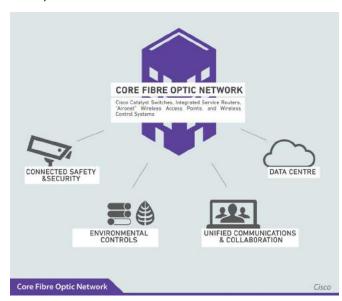
Unified Communications and Collaboration: This includes voice, and video hardware, instant messaging services, and enterprise social platforms, making communications between individuals internally and externally faster and more effective.

Connected Safety and Security: High quality video surveillance software and IP cameras that can be accessed and controlled by staff onsite from their mobile devices. This enables more effective security monitoring and quicker discovery of any breeches.

Environmental Controls: Automated and adjustable control of lighting, HVAC and blinds would deliver energy efficiency and savings. The communications system would be connected to provide real-time monitoring through thermostats, motion and solar sensors, and energy usage.

Data Centre: The installation of a data center within buildings will make IT processes faster for all tenants, reduce their expenditure on IT equipment, and enable cloud computing.

Customized additional hardware and software solutions will vary depending on Morguard and the tenants' preferences for 33 City Centre.



A strong business case

Smart building retrofits are an innovative form of reconstruction, with new add-ons being developed regularly. For this reason, there are few retrofits that have been completed and operating for numerous years. A similar retrofit was completed on Pennzoil Place, an office building in Houston, Texas. In 2011, Cisco was contracted to retrofit the tower, and under it the property was able to realize a 21% decrease in energy costs within the first year

from increased operational efficiency. It also led to the building obtaining LEED Gold certification and was named one of the smartest buildings in the United States. While the cost of the retrofit is unknown, the building broke even in approximately two years, allowing for significant returns on the total project. Though Pennzoil Place cannot be used as a direct comparable due to the vast size difference, 33 City Center can expect similar cost savings from operating efficiency, bolstered by an increase in tenants, ensuring a significant return on investment.

Investment Payback

The oversupply of office space in the West GTA region implies that tenants can afford to be selective with choosing only the most attractive office spaces. The appeal of smart retrofitted buildings allows Morguard to offer a differentiated product within the class B industry, causing an increased demand for its office space. A smart retrofit of 33 City Centre will roughly cost Morguard \$7.5M. The retrofit would result in both increased revenue and decreased operating costs. Assuming the retrofit increases demand with net rent staying at \$15.50/sq. ft., every percentage decrease in vacancy would equate to an annual revenue increase of roughly \$33,015. If 33 City Centre was able to decrease its current 27.5% vacancy rate to Mississauga's average of 12.5%, it would be able to increase its revenue by \$495,225 annually. The property will also experience substaintial cost savings associated with maintenance, water, and energy. Morguard should expect a conservative 7-year pay back period on its 33 City Centre retrofit investment. This aligns with the Canadian commercial real estate standards of an 8.5 year payback.

A bright future for Morguard

As the GTA commercial market still remains stable, it is important that Morguard implements this strategy quickly to ensure that it comes to market prior to other competitors doing a similar smart retrofit. The 10-year lease structure for tenants ensures that this would be a long-term competitive advantage for Morguard. The success of 33 City Centre should be a validation of smart building technology's capabilities, resulting in the adoption of smart buildings as a portfolio-wide strategy. To do this, Morguard must identify struggling office properties on the basis of size, class, vacancy rate and location. Retrofitting these additional properties would increase the efficiency of Morguard's portfolio and help to increase potential returns on these projects. With office supply increasing in the GTA, implementing the smart building strategy will ensure Morguard remains competitive in the long-term.

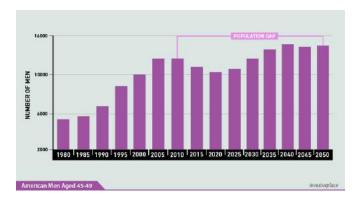


THE ROAD LESS TRAVELLED

Harley Davidson has underestimated the potential of Project LiveWire and needs to pursue strategic partnerships to succeed in the market

By: Xiaoya Xu & Karen Yu

For 111 years, Harley-Davidson has sold a story of freedom and independence. It built a brand that connected with the youthful rebellion of a generation and has become entrenched as an American cultural icon. However, with 65% of the company's revenue last year coming from Caucasian men over the age of 35 and an expected 20% decline in its baby-boomer customer base by 2030, Harley is facing its own mid-life crisis. This demographic shift, combined with a rising median age among motorcyclists and a decline in first-time buyers, paints a dark picture of future growth prospects, particularly among the younger generations. Moreover, despite the fact that revenues are currently on the rise, unit sales are still down 30% compared to 2006. Harley's cultural ubiquity has allowed the brand to become a symbol of American individuality, which has translated to commercial success in the past. However, this powerful branding is no longer relatable to younger audiences, and unless it can revitalize its brand, Harley will fade into obsolescence.



"WITH 65% OF THE COMPANY'S REVENUE LAST YEAR COMING FROM CAUCASIAN MEN OVER THE AGE OF 35 AND AN EXPECTED 20% DECLINE IN ITS BABY-BOOMER CUSTOMER BASE BY 2030, HARLEY IS FACING ITS OWN MID-LIFE CRISIS."

Checking the Mirrors

To mitigate the issue of its aging customer-base, Harley has recently focused on new product development. The Harley-Davidson StreetTM 500 and StreetTM 750 motorcycles, released in late 2014, were intended to serve as platforms to attract a new generation of young, urban riders to Harley. The Street bikes are offered at a discount of approximately 30-50% of typical Harleys, with the StreetTM 500 and the StreetTM 750 starting at \$6,799 and \$7,499 respectively. The new line has been well received, and is forecasted to sell 7,000 to 10,000 units in the first year.

This new line, however, may not prove to be a long-term solution as the cheaper Street may dilute Harley's image, built upon notoriously loud, up-right heavyweight motorcycles. Deviation from this image has historically been ineffective, as demonstrated by the unpopular release of its lower priced,

entry-level motorcycle, The Buell Blast, in 2000. Focusing on the Street line alienates Harley's core fan base and shifts the brand image into murky territory that it has not been accounted for in its marketing and messaging.

The Street line also moves Harley away from its established competitive strategy of strong differentiation based on its heritage and cult following, to a space that is highly saturated by competitors such as Honda, Yamaha, Kawasaki, and Polaris. Foreign competitors have dominated the space of urban, lowcost, and reliable motorcycles in the international market. With a research and development budget of only 2.9% of sales, Harley's investment in technology lag far behind Yamaha's 5.4% and Honda's 5.1% allocations of sales dollars to motorcycle R&D, indicating a strategic mismatch if the desire for product innovation is genuine. Harley also has a lower capacity in purchasing and manufacturing compared to its counterparts, such as Honda. Harley sells approximately 400,000 units annually, while Honda sells close to 10 million, giving Honda higher buying power against suppliers and potentially improved economies of scale. From a manufacturing standpoint, Harley is accustomed to producing low volumes of high-margin motorcycles. When switching its focus to the Street line, Harley may face challenges in adjusting to higher manufacturing volumes.

Two proverbial roads are diverging, and Harley Davidson is faced with a choice. Rather than placing its reliance on the Street Line to appeal to the younger generation, Harley should take the road less travelled by more seriously pursuing Project LiveWire: its prototype electric motorcycle. By focusing on LiveWire, Harley can introduce a new and relevant product to the younger generation, while still maintaining its position as a premium motorcycle manufacturer.

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MOTORCYCLE R&D."

Test Driving the Competition

Project LiveWire is Harley's first foray into the electric motorcycle market. A prototype model is currently being toured throughout North America and Europe in an attempt to solicit consumer feedback. This feedback will help Harley decide if and when to bring an electric motorcycle to market. The prototype has a single gear, a touch screen dashboard, and is strangely quiet. Harley's CMO, Mark-Hans Richer, denotes that Project LiveWire is all about building buzz and showing Harley can appeal to new kinds of customers, rather than a concrete plan to release an electric bike. This narrow focus is a missed opportunity for Harley Davidson.

Harley is not the first to enter the electric motorcycle market. Electrics have been a niche market since 2010, with the space comprised almost exclusively of small companies such as Zero, Brammo, Energica and Mission. Zero Motorcycles and Brammo were the first two companies to bring electric bikes to market. However, these players currently have insignificant sales compared to traditional motorcycle manufacturers. Zero



Motorcycles expects to sell about 2,400 bikes this year globally, a small fraction of Harley's 2013 sales of gasoline-powered motorcycles.

This market may not stay quiet for long, as big player Yamaha has hinted in its 2013 annual report at an introduction of electric bikes in the near future. Indeed, research from Navigant Research suggests the e-two-wheeler market is ready to surge as component prices drop. It estimates that 55 million plug-in two-wheelers will be sold within the next decade.

"NAVIGANT RESEARCH ESTIMATES THAT 55 MILLION PLUG-IN TWO-WHEELERS WILL BE SOLD WITHIN THE NEXT DECADE"

The main obstacle Harley will face when attempting to enter this new market is its lack of expertise in manufacturing electric motorcycles. Notably, the current specs of LiveWire pale in comparison to those of niche brand bikes, specifically when it comes to range and speed. These issues stem from battery capacity limitations and component manufacturing, as the technology is not yet mature and battery quality is a key factor for both cost and bike functionality. Despite these challenges, it is important for Harley to stay ahead of the curve and spot opportunities early in order to maintain sustainable growth. The most effective method through which Harley can maintain its positioning is to seek out strategic partnerships to complement its strengths and offset its weaknesses.

Paving the Way

Harley traditionally produced heavyweight, gas-powered motorcycles. It enjoyed success in this space through innovative technology, like the V-Twin engine, which led to Harley bikes being seen as loud, powerful, and unique. This image has allowed Harley to price their bikes at a significant premium to the rest of the industry. If the LiveWire is to assume a premium position and become the market leader in the electric motorcycle space, Harley will need to design a bike with best in-class performance. The current specs of the LiveWire are insufficient to achieve this status. To bridge the gap between their current abilities and the required skills, Harley should seek the expertise of Tesla Motors.

Tesla gained widespread attention through the launch of the Tesla Roadster, the first fully electric sports car, and has since become the champion of electric vehicle technology. Tesla has a history of developing key electric vehicle components for other manufacturers, such as for the Toyota Rav4 and the Mercedes B-Class Electric Drive. Tesla contributed both the battery pack and the electric drivetrain, which are key components needed to be improved on LiveWire. With sales of the jointly developed

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Toyota RAV4 EV winding down since its release two years ago, the company will likely have additional capacity to produce for external manufacturers, and would be interested in working on a Harley motorcycle to expand the reach of their brand into diversified products. Tesla also released a number of its patents to the public in June 2014, indicating that the company wishes to standardize its charging technology. With Tesla actively looking to expand its customer base, Harley can capitalize on Tesla's expertise to resolve the major issues facing LiveWire. This will allow the Harley to develop a model with leading specs and be seen as a front-runner in the industry.

"TESLA RELEASED A NUMBER OF ITS PATENTS TO THE PUBLIC IN JUNE 2014, INDICATING THAT THE COMPANY WISHES TO STANDARDIZE ITS CHARGING TECHNOLOGY."

Positively Charged

A partnership with Tesla would also help overcome the lack of charging infrastructure for electric motorcycles. Currently, LiveWire would have to utilize Level 2 public charging stations. These stations result in charging times of approximately two hours, which decreases the appeal of owning an electric motorcycle. Partnering with Tesla would allow LiveWire to utilize Tesla's network of SuperChargers. In 2012, Tesla began constructing a network of 480-volt fast charging stations that would facilitate longer distance trips for its cars. There are currently 144 stations in North America in high-traffic corridors, 121 in Europe, and 48 in Asia, with many more stations on the way. The Superchargers would allow for a drastic reduction of charge time to potentially as low as 20 minutes. Where Harley would benefit from battery technology and compatibility with Superchargers, Tesla stands to gain additional acceptance of its technology standards. By partnering with Tesla, LiveWire riders would be able to experience a convenient and ubiquitous riding experience across the United States.



Fine Tuning

Harley has overlooked the potential to fully launch the LiveWire to not only appeal to younger riders, but also to be the first to pave the future for sustainable motorcycle riding. Harley should focus on expanding its market share of young professionals in the US between 24-45 years of age that earn over \$90,000 annually, indicating a current market size of 5.77 M people. This demographic is typically concentrated in urban areas, have disposable income, and are increasingly choosing alternatives to cars due to limited parking and high traffic. With 32% of vehicles being purchased on average by that age bracket and a 3% ratio of motorcycle sales to vehicle sales in the US, Harley stands to see a market size of \$343 M. In comparison to their expected sales of its Street line-up, Harley would need to capture 22% of the market to achieve similar top line growth. While this is significantly smaller compared to Harley's entire motorcycle market share in the US, Harley can jumpstart this capture by heavily pushing sales in California. This move aligns with the strategy as a whole, as it is not only the locations of Tesla's headquarters, allowing the company to promote sales through association, but it is also the state that is most committed to creating a zero-emission transportation industry. The value of the opportunity is bolstered by the international potential of LiveWire, specifically in Europe, where there is growing demand for renewable energy transportation.

"THE SUPERCHARGERS WOULD ALLOW FOR A DRASTIC REDUCTION OF CHARGE TIME TO POTENTIALLY AS LOW AS 20 MINUTES"

Revving the Electric Engine

The iconic company can once again infiltrate popular culture, in effect building loyalty for a modified Harley brand. In the past, Harley became an ingrained component of American culture by being the transportation of choice for the US military, rock-and-roll icons, the Hell's Angels, and Hollywood rebels. The brand evolved to represent American rugged individuality and promoted desire for Harley motorcycles. This focus on individuality should be extended to the new LiveWire through Harley's online tailor-made platform, where an abundance of colours, textures, and materials will be available for customization to further attract the younger generation, which continues to value personalization.

Harley's cult following must also be rebuilt within the context of modern culture by associating the brand with relevant cultural figures and popular media. Harley must court celebrities who are prominent with the young professional demographic, provide them with free bikes, and strive to have these bikes appear in relevant movies and TV shows. Additionally, these new target users must experience the product for themselves. Harley should approach corporations for proposed partnerships, in which dealerships will host events at major offices to allow the employees to become more comfortable and knowledgeable about the Harley brand. This will ensure Harley is attracting people who can afford the product and are within the target market. By re-immersing Harley into popular culture in meaningful ways and marketing direct to consumers, Harley can become a cultural icon that is no longer associated with an out-dated past, but with the future.

Hitting the Open Road

Harley is at a crossroads, but within shifting demographics there lies an opportunity for the once powerful brand to build a new, more sustainable image. The dawn of electric vehicles is here, and Harley can either be in the driver's seat and steer itself into the bright future, or wait for the world to drive by. The Street line has only succeeded in blurring the future of Harley-Davidson. With the LiveWire, Harley is able to maintain profitability by selling a technologically advanced product that justifies premium pricing and high margins. In a partnership with Tesla, Harley will not only be able to better execute its strengths, but also take advantage of Tesla's innovative technology to produce a top-line motorcycle that aligns with Harley's brand. This move will create a sustainable competitive advantage by establishing Harley as the first major brand in the new electric motorcycle market. More importantly, this move will attract a new generation of Harley fans. Harley must not let the roar of the past overpower the hum of the future.



(NOT) READY FOR TAKEOFF

Malaysian government's state fund Khazanah proposes a 12-point plan to restructure Malaysia Airlines. It is important rebranding gets added to the list

By Kenneth Cheung & Dorothy Wong

In 2014, Malaysia Airlines experienced two major tragedies: the disappearance of Flight 370 on March 8th followed by the crash of Flight 17 four months later on July 17th. Both disasters have been featured in headlines across the globe and continue to appear in various news publications daily. The airline has been targeted by the press with news coverage ranging from technical problems and scandals to photos of empty flights, all negatively influencing consumer perception of Malaysia Airlines.

Furthermore, most airlines in Southeast Asia are experiencing a decline in sales due to stiff competition. Malaysia Airlines has been applying extreme discounts on its flight tickets in an attempt to capture market share and regain consumer confidence. In fact, the consolidated company, Malaysian Airline System Berhad (MAS) has actually experienced five consecutive years of negative gross profit and cash flow from operations since fiscal year 2009, and will be expecting yet another loss for 2014.

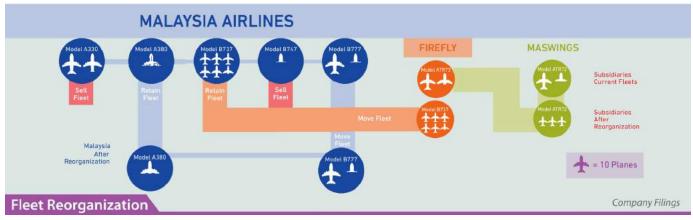
Taking Flight

Clearly, a problem with the company has existed prior to the twin disasters. Malaysia Airlines has been poorly managed and the two tragedies simply accelerated its downfall. In hopes to restructure MAS, the Malaysian government's state fund Khazanah proposes a 12-point plan for reviving the national carrier. The goal of the "MAS Recovery Plan" is to help the company achieve profitability in three years. Khazanah plans to create a new company, Malaysia Airlines Berhad (MAB), which will take over the existing MAS. An administrator will have the ability to address critical issues, including downsizing

the workforce, moving around assets, and appointing a new CEO. The administrator will also have the power to renegotiate supplier contracts, which many experts believe to be the key challenge in the past. MAB will additionally have a renewed focus on regional routes, operating on an assumption this can result in a lower cost operating model. The Malaysian Airline System Berhad (Administration) Bill, which was passed by the Malaysian government in November, will facilitate this process by giving the right to the administrator to change the company as he/she sees fit.

Analyzing this plan evokes memories of Korean Air Lines Flight 007, which was struck down by a Soviet fighter jet in 1983. The company changed the airline's name slightly to Korean Air and undertook major changes in design, completely different from its past image, which was associated with disaster and lack of safety. This rebranding effort was paired with an internal restructuring strategy, and Korean Air is now one of the safest airlines in the industry. This success story shows one path Malaysia Airlines might take to success; however, it took Korean Air almost two decades to become consistently profitable after these changes, a vast difference in the three years Khazanah is planning for.

In addition, the 12-part strategy proposed by Khazanah explicitly neglects one major aspect - branding. The company's commercial director, Dr. Hugh Dunleavy, said that Malaysia Airlines has well-developed brand equity, which rebranding would eliminate. On the other hand, the airline's brand is now firmly connected with tragedy and poor public relations, making it significantly more difficult for the carrier to bring sales volume back up in a short period of time. A series of



marketing failures including the "Bucket List" campaign and a controversial post on Twitter further worsen the situation.

Altering Course

MAS is comprised of several carriers, of which Malaysia Airlines is only one. The corporation also has two regional carriers: Firefly and MASwings. Currently, these subsidiaries are about a third the size of MAS itself, yet are still operating at a profit through the corporation's turbulent times. These two subsidiaries operate shorter-haul flights than Malaysia Airlines. In other words, MAS has two child airlines with strong, unblemished brands, both of which focus on regional and domestic flights, a goal of the Khazanah plan. By transferring planes and routes from the parent corporation to the child ones, MAS can effectively both rebrand itself and refocus its operations on more profitable routes, assisting it back to profitability. Additionally, by using strong, established brands, Khazanah would be more likely to reach profitability faster than it would using either an unestablished or damaged one. Finally, this plan aligns well within the existing 12 point plan, with Khazanah utilizing the same cost cutting and contract improvement methods, while still providing brand relief for MAS.

In addition, each brand of Malaysia Airlines (Malaysia Airlines, Firefly, MASwings) should focus on a distinct distance (longhaul, regional, domestic). Utilizing this strategy allows MAS to achieve cost advantages. For example, Southwest's fleet only consists of a one-type plane fleet, in this case the Boeing 737 series, and is a strategy MASwings and Firefly could adopt. This strategy of only operating one type of aircraft reduces maintenance costs, including spare-parts inventory and mechanic training. It also cuts crewmember costs as all employees are simply trained to only operate the 737s. Furthermore, in the case of last minute technical problems, the company can quickly switch to a functioning airplane since the entire fleet is interchangeable.

Swapping Parts

To achieve the desired positioning, MAS will need to reallocate its airplanes. The short- to medium-haul B737s currently in Malaysia Airlines' fleet need to be brought over to Firefly in order to accommodate its massive expansion across Asia.

Firefly's current fleet of turboprop airplanes should be moved to MASwings so that the newly positioned domestic carrier can take over Firefly's existing domestic flights. Finally, the A330s and B747s in Malaysia Airlines' fleet are aging aircrafts, and should be sold or disposed of. Malaysia Airlines will only need its long-range A380s and B777s for the long-haul international flights. These aircrafts will also help the airline maintain its status as a legacy carrier, catering to the luxury segment.

Firefly will then have only one type of plane, the B737, which is sufficient for the budget carrier to compete in the booming low-cost market. Maintaining a fleet of only one type of aircraft will also help achieve greater operational efficiency, as seen in the successful budget carrier Southwest Airlines.

Picking a destination

To begin with, Malaysia Airlines should divide up its existing routes so that it, Firefly, and MASwings flights fly long-haul, regional, and domestic flights respectively. Next, Firefly should begin expanding its routes to serve the emerging demand for regional routes in Tokyo, Osaka, and Seoul, driven by a rising Malaysian middle class and the rising popularity of Korean entertainment. Finally, Malaysia Airlines should continue to grow its focus on the "Kangaroo Route", which are traditionally profitable, long-haul flights flying between Europe and Australia that make a transfer typically in Southeast Asia. Malaysia Airlines' membership in the Oneworld Alliance allows the airline to make codeshare agreements with other airlines in the alliance, which will help stimulate demand and increase revenue in these long-distance routes.

Arrival

The steps taken by the Malaysian government serve to empower the organization, but a lack of focus on the brand issue around Malaysia Airlines will likely prevent any positive change for the company. Even though it may take significantly longer than three years for the airline to rebuild its brand and earn consumers' confidence, with Korean Air as a precedent, there is hope that Malaysia Airlines will make it through this bumpy ride. All together Malaysia Airlines can see itself reborn through theses trials, but must rebrand itself through Firefly and MASWings.



LINKING THE NETWORK

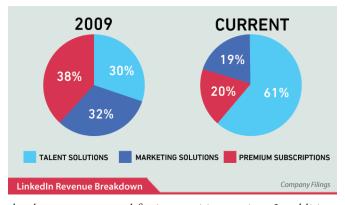
LinkedIn can utilize recent acquisitions to expand into internal enterprise HR solutions

By: Manpreet Toor & Alex Pires

There has been much talk about the market for data analytics, but little of it surrounds the lucrative talent and recruitment markets. Between software, services, recruiting staff, and recruitment consulting, industry estimates suggests employers are spending on average between 150%-200% of a person's annual salary on employee replacement costs, which has pinned the global recruiting market to an estimated \$130B. This reflects the high value companies place on human capital, the source of some of their most valuable assets: patents, trademarks, and goodwill. According to a study by The Conference Board and McKinsey & Company, while human capital priorities are of strategic importance, companies are failing to keep pace with the changing needs of the business landscape and failing to take advantage of new technologies. With the increased capability of data analytics, processes such as finding, selecting, and allocating human resources are becoming a fast growing opportunity for this technology. LinkedIn is well suited to engage this market opportunity

Beyond External Networking

LinkedIn has earned more than \$1.5B in revenue in 2013. Its Talent Solutions business unit, comprising of its employer-facing recruiting and hiring services, is the growing arm of the social network. In third quarter 2014, 61% of revenues came from Talent Solutions – more than double what it was in 2009. LinkedIn's current product offerings are mostly catered to recruiting and job searching. However, once a LinkedIn user is hired, the user is less reliant on the platform's revenue-generating job seeking services (such as LinkedIn Premium). There is also a drop in the potential to generate revenue through companies



that have no more need for its recruiting services. In addition, while LinkedIn's revenue has increased with a compound annual growth rate (CAGR) of 59% since Q3 of 2011, both revenue growth and user registration has declined at a CAGR of 29% and 24% respectively. Despite multiple acquisitions over the same time frame, it seems to have had little to no impact on the company's decreased growth.

LinkedIn can offset its slowing growth trends by creating a product that engages customers beyond the hiring process. Internal human resource (HR) processes, such as talent retention, employee engagement, and organizational development, present a promising opportunity in a new wave of human capital analytics. Following their recruiting process, companies need to find the best ways to retain and use their human resources. Considering LinkedIn's vast accumulation of data, stable infrastructure, and technological credibility, no one else is better positioned to develop solutions for the new needs of the HR space and capture this market potential.

A Departure from the Norm

This emergent opportunity in the HR space fuelled LinkedIn's acquisition of Bright.com, an artificial intelligence (AI) based service that determines a candidate's fit for a particular position. This acquisition highlights LinkedIn's commitment to establishing itself as an HR tool and will be the key driver behind LinkedIn's expansion into internal enterprise solutions. LinkedIn should invest in the development of a proprietary human resources management and recommendation platform for both external recruitment as well as internal project allocation, as part of an internal version of its Talent Solutions business. This opportunity will create a new revenue stream and drive demand towards LinkedIn's most valuable business unit.

Human Capital Analytics - Inside Out

Companies currently use an array of individual software tools to manage human resource requirements for internal succession planning, external hiring, and project resource planning. Microsoft Outlook, Microsoft Project, SharePoint, and other third party apps have all attempted to aid in this process of allocating human resources to projects, while larger customized enterprise resource solutions, such as SAP, are often employed for internal planning. Even so, there has yet to be a single dependable software that helps a manager best select internal and external talent.

In many organizations, the task of forming teams simply comes down to the decision of senior executives or resource availability. On multi-year, multi-billion dollar projects, poor team recruitment decisions have the potential to irreparably damage or bankrupt the company. As such, successful team formulation and choosing the right members for the right project is critical for human resource managers.

"ON MULTI-YEAR, MULTI-BILLION DOLLAR PROJECTS, POOR TEAM RECRUITMENT DECISIONS HAVE THE POTENTIAL TO IRREPARABLY DAMAGE OR BANKRUPT THE COMPANY"

Using Bright.com technology to match candidates to job descriptions, LinkedIn can develop a resource recommendation solution for employers. This will identify ideal external candidates on LinkedIn for specific roles within a company, and the best internal candidates from a community of internal profiles. LinkedIn can combine the Bright.com AI with its existing enterprise analytical methods to predict future HR needs based on the terms of existing contracts and projected turnover. This means LinkedIn can provide continuous internal and external hiring recommendations for current and future job openings and create a non-cyclical, perpetual

revenue stream based off of existing technologies. Employers will no longer need to exhaust internal resources to analyze requirements and actively search for the best candidate; with LinkedIn, it is easy for employers to "always be recruiting." In order to maximize the benefits of this service to the employer, creating the necessary internal profile data is critical. LinkedIn can encourage employees to create data within the system by bundling the service with an enterprise social network.

Chatter, Yammer, Linker?

In 2013, LinkedIn CEO Jeff Weiner hinted at a possible expansion of LinkedIn's product offerings into enterprise social networking, a space that includes Salesforce's Chatter, and Microsoft's Yammer. In November 2014, even Facebook announced it would be releasing a social platform for use at work. LinkedIn's distinct competitive advantage, however, would be its ability to enter the market with a pre-established professional network, allowing for an immediate connection between the internal corporate and external platforms.

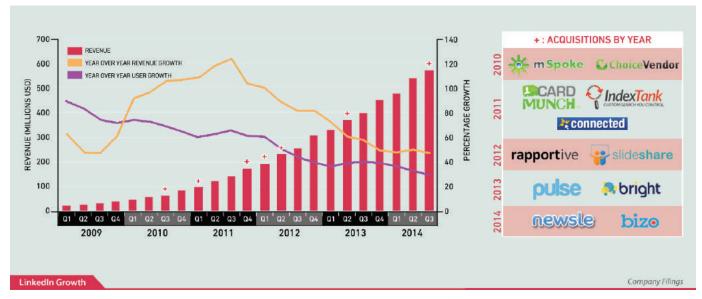
An enterprise social network expands and improves the quality of LinkedIn's pool of user data. Employees gain accreditation that they can display on their internal profiles, which can be exported to external profiles at the discretion of their managers. Ultimately, employees will be encouraged to contribute content, as increased information can now be important for internal and external recruitment opportunities. This will ultimately enhance the accuracy of the proposed recommendation engine.

No More Wasting Time

An internal social network for any company encourages increased productivity through open communication and sharing. To help sell its human capital analytics and enterprise social network to HR departments at the world's largest employers, LinkedIn must quantify the efficiency and productivity created from its service. According to the McKinsey Global Institute, productivity of knowledge workers in large organizations can increase by 20% through the use of social platforms. Social networks reduce the amount of time required to write and answer emails, and eliminate time-consuming searches for internal knowledge and expertise. Quantifiable efficiency gains can serve as further encouragement for user adoption.

Slack in the Chain

Despite LinkedIn's current advantages of brand recognition among employers and the size of its professional social network, the company will need to catch up with the established and developing market players. As such, LinkedIn should acquire and integrate an existing platform rather than develop one inhouse. The eight month old start up Slack would make an ideal target. With \$2.3B in cash, LinkedIn can afford to acquire the \$1.1B start up. Slack is a team communication tool, integrated with third party services (Google Docs, Dropbox, GitHub),



with over 268,000 active daily users. Slack gives LinkedIn direct access to over 30,000 teams and a sales channel for LinkedIn's human capital analytics service. Corporate buy in at LinkedIn shouldn't be a problem as their CEO Jeff Weiner is already personally invested. Once the internal talent solutions product is developed, LinkedIn should market the product via an enterprise Software-as-a-Service (SaaS) model, where the product is centrally hosted and licensed on a subscription basis. This would fit perfectly with LinkedIn's strong core competency in running web applications, and offering cloud HR and communication solutions will simplify the product offering for potential customers. For companies worried about information security and against having confidential information flow through LinkedIn servers, the option of hosting information on client servers should also be explored.

Sticky Links

This new human capital analytics/enterprise social network product would create a significant competitive advantage for LinkedIn in the HR industry. Considering that the human capital analytics tools and the enterprise social network complement each other by providing and using each other's data, LinkedIn should use a mixed bundling strategy for the two products to drive incremental revenue for both. A mixed bundling pricing strategy would also take advantage of firm's differing reservation prices for the two products, expanding two high margin products and increasing adoption.

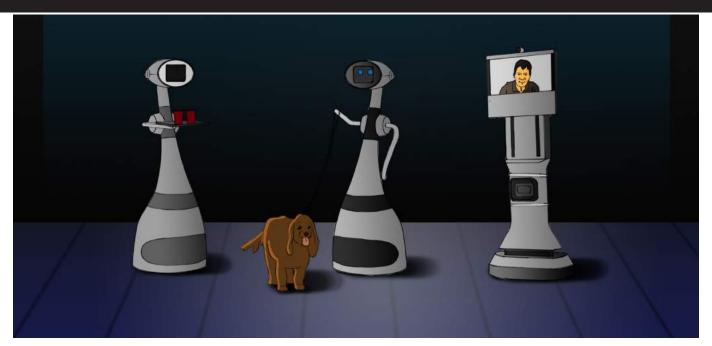
In order to gain a market foothold, LinkedIn should offer the product to employers for free in the first year, similar to WhatsApp's pricing model. By offering the product free for the first year, and then converting to a freemium model (where the basic product is free but money is charged for additional functionality) with additional features priced on a modular basis, LinkedIn will have an opportunity to gain valuable customer feedback, and develop and test additional functionality requested by loyal users. Additionally, tiered

features allow for increased revenues from LinkedIn's existing customer base without the need to acquire new leads. This will lessen the burden on LinkedIn's large sales force and drive organic growth.

Overall, this pricing strategy will improve user adoption upfront, enabling the network to quickly reach scale. The platform will create a stickiness that LinkedIn did not have with its enterprise customers before. LinkedIn's social network and analytics tools will be a key part of the clients' human resources backbone.

How to Link it All Together

With over 300 million users, LinkedIn can become the unchallenged leader in professional social networking. With their large user database comes immense and valuable data pertaining to users' skills, employment history, educational background, and interests. Increasing data on LinkedIn's internal platform, where employees can opt in to export said data at their managers approval to their external profile, enhances the value of LinkedIn's external platform for its users and creates a network effect. This results in a full cycle of user engagement from the time people are looking for jobs, to when they are employed, to when they begin searching for employment again. This will continue to drive revenue growth in the Talent Solutions division and the lagging marketing and premium subscription segments (together half of LinkedIn's revenue). The launch of a SaaS HR management tool and enterprise social network is a combined offering that can offer growth across major revenue streams and ensure LinkedIn continues to be the professional network of choice.



ROBOSOFT

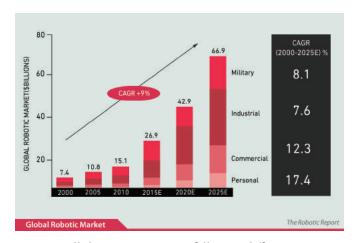
How Microsoft can secure an ecosystem advantage through household robotics development By: Tom Grainger and Aditya Challapally

Until recently, products in the robotics industry have been primarily used in manufacturing and military applications. Robots in the home were for enthusiasts, willing to forgive high prices and limited functionality in exchange for novelty. These days are over: advances in product quality and acceptance by consumers have laid the groundwork for massive growth in household robotics over the next decade and previously uninterested companies are now entering the battle for market share.

The Boston Consulting Group predicts robotics to be one of the fastest growing industries in the world over the next few years, with an expected CAGR of 17% from 2014 to 2019 for the personal market, reaching a market size of \$9B by 2025. Parallel to this industry growth is a significant shift in the consumer technology space toward the Internet of Things, increasing the interdependency of a wide range of products. Google, Apple, and Amazon are each looking to secure their position as tomorrow's integrated consumer technology provider, and robotics will play an ever more pivotal role in this goal.

Rise of the Machines

In 2013, Google completed its eighth robotic company acquisition, with the promise of providing consumers with quality humanoid robots in the coming years. Also in 2013, Apple spent over \$10B investing in supply chain robotics, in order to gain competitive advantages in manufacturing. Not to be left out, even Amazon has made splashes in robotics news with the headline-grabbing delivery drones proposal, as well as its acquisition of the mobile robotic fulfillment company Kiva



Systems. All these companies are following different strategies. Where Google is acquiring companies, Apple seems to be partnering with them. Where Amazon uses its robots to provide supply chain management, Google targets consumer-facing devices, and Apple does both.

As it stands, none of these competitors have found a way to bring robotics to the home market, and no one knows when they will. However, all of them have acknowledged the importance of the upcoming robotics industry and demonstrated a keen interest in getting involved. The diversity of their strategies also shows the vast potential of robotics – a technology that is going to be used across industries. Amongst the big players in technology, Microsoft has conspicuously not made any significant investment in robotics. If nothing else, Microsoft stands to be left behind if it fails to act.

Microsoft's Lost Decade

Currently, roughly 60% of Microsoft's \$5.8 billion operating income is derived from its Windows and Business divisions, marketing software primarily to corporate offices and households. While Microsoft still dominates the personal computer market, PCs represent a smaller portion of the technological landscape with each passing year. Microsoft has also stumbled with its numerous product introductions over the past decade. Microsoft's Lost Decade in the Spring 2010 issue of the Ivey Business Review highlighted this point, demonstrating the company's withering innovation as it became a "market follower, rather than a market maker."

Windows phones are a prime example of the company following Apple's market leadership, with the phones having yet to gain significant market share. According to an August IDC report, Windows phones are actually losing share. Microsoft's Surface line has finally turned a slight profit, though only after two generations of losses. Windows 8, a public relations nightmare, has only captured 15% of the operating system market share after two years, less than half of Windows 7's share (40%) in the same time frame. Finally, while the holiday season and recent momentum may prove beneficial, Microsoft's Xbox One has been selling at approximately half the rate of Sony's PlayStation 4, and represents another underperforming Microsoft product.

"WHILE MICROSOFT STILL DOMINATES THE PERSONAL COMPUTER MARKET, PCS REPRESENT A SMALLER PORTION OF THE TECHNOLOGICAL LANDSCAPE WITH EACH PASSING YEAR."

Ecosystems Evolved

The largest value of tech lies in the ecosystem; consumers are increasingly integrating their lives around interconnected devices. Again, the prime example is Apple. Known for having some of the stickiest customers, Apple's ecosystem of phones, laptops, tablets, music, and TV, along with the ease at which these devices share content, prompts users to buy into, and remain in, the entire ecosystem. The value of each individual product also increases as consumers attribute some of the ecosystem's value to the device itself. An example of this is the iPhone, which has used this ecosystem effect to drive much higher margins. Despite dropping to "only" 13% of the mobile market share compared to Android's 80%, the iPhone represents over 50% of the smartphone industry's profit. However, while Apple has dominated the current ecosystem driven by mobile and tablet integration, emerging markets such as wearable technologies, mobile productivity, smart homes and televisions, and now robotics, offer new opportunities and have yet to be claimed.

Microsoft has already started reacting to many of these market opportunities. With the Microsoft Band, Office Mobile for iOS and Android, and Xbox One, Microsoft is positioned to compete in all of these segments, except robotics. In the end though, much like smart-homes, smart-watches, and smartliving-rooms, the robotics industry will join the Internet of Things. With other players already making moves, Microsoft can't afford to be left behind again. Ten years from now, when a consumer leaves the house in the morning, smart phone in her hand and smart watch on her wrist, she will return to an immaculate house at the end of the day. Integration between her phone and calendar will have managed the house's thermostat, saving energy throughout the day; ordered the house robots to clean the floors, complete the laundry, and prepare dinner before she returns; and managed all her digital content, including downloading the newest episode of her favourite show. Our consumer is connected and she's invested into the ecosystem that does it all. Without a Microsoft robot, there is a chance our consumer chooses an Apple one instead, which integrates better with iCal than Outlook, Apple TV instead of Xbox One, a MacBook Air instead of a Surface Pro, and her iPhone rather than a Windows device.

That being said, not all components of the Internet of Things are valued equally – and it's improbable that any company is actually going to have an ideal offering in each segment. By 2018, the wearables market is projected to be around \$11B, smart home products are projected around \$9.4B, and the entire robotics industry will be around \$30B, with commercial and personal robotics accounting for approximately half of that. Therefore, if Microsoft can do to robotics what it did to PCs, Microsoft stands to dominate one of the most valuable subsegments of the Internet of Things.

Clear Azure Skies Ahead

The goal of any ecosystem should be to drive adoption of a company's most profitable segments, and for Microsoft, that currently is Office and Windows. Yet these segments are changing, primarily from box-software for desktop PCs, to cloud offerings for a range of devices, and this change is being powered by Microsoft's up-and-coming Azure platform. Growing faster than its main competitor, Amazon Web Services, Azure is powering Microsoft's ecosystem, including OneDrive, Office 365, Xbox Live, as well as all corporate web



services. Azure's ecosystem is the key to Microsoft's future, and the goal of robotics must be to drive value to this package.

Robotics also represents an industry that Microsoft is well suited to compete in. Bill Gates describes the robotics industry as "a highly fragmented industry with few common standards or platforms", which is very similar to the PC market before Windows was developed. He also describes how Microsoft is working to develop software that makes robotics development easier, but it's not enough. While it's clear that Microsoft has little strength in developing hardware, it has proven its ability to build software platforms that enable a wide range of hardware developers. The consumer robotics market is ripe for a similar unifying platform, and Microsoft should create it. By combining this platform with Azure, Microsoft has the ability to change the robotics industry for the next few decades.

To enter the robotics industry, Microsoft needs to develop a cloud-driven robot operating system. Starting from nothing is too slow, so Microsoft should acquire an existing platform, and finish developing it to incorporate Azure technology. Microsoft should then partner with robotic developers across the industry to maximize the platform's efficacy. To bring it to market, Microsoft should follow its current Azure model, giving away basic features for free, and charging more for bandwidth and hardware time. Microsoft can also profit from the value this platform drives to its other products, such as the ability to use your Windows phone to control your Windows robot.

I, iRobot

Founded in 1990 by a team from the MIT Artificial Intelligence Lab, iRobot is a longstanding leader and innovator in household robotics and represents the perfect target for Microsoft. Its flagship product, the Roomba vacuum, is the first fully autonomous robot to gain nationwide recognition and acceptance in the household. Today, iRobot offers a line-up of household robots that perform menial tasks such as vacuuming, tile scrubbing, mopping, pool maintenance, and gutter clearing. It also offers robots for video collaboration and telepresence in businesses and military robots for government contracts. When it comes to robotics, and especially to personal robotics, few companies have comparable platforms to iRobot.

Threats to iRobot are powerful and come from multiple directions. Dyson, Samsung, and numerous other companies have announced similar robotic products. iRobot, with 2013 revenues of \$487 million, has openly acknowledged the danger of entrants that hold substantially greater financial and operational resources. Should Microsoft choose to step in, the company can strengthen iRobot's ability to innovate and operate successfully by providing it with the necessary financial resources. Microsoft can also improve iRobot's products, easily offering interconnectivity to Windows products, and a greater product reach through Microsoft distribution channels.

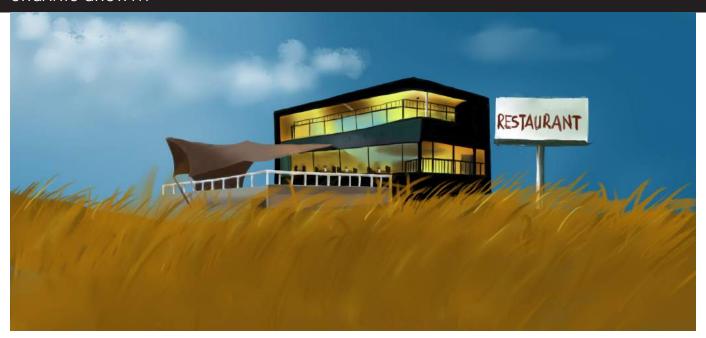
A Unified Platform

With around \$89B in cash and cash equivalents, Microsoft can easily afford the purchase of iRobot, currently valued at \$1.2B. Upon acquiring iRobot, Microsoft should focus on the development of a new robot-based operating system (OS) to ship with iRobot and other potential partners. Microsoft should start with one of iRobot's newest platforms, such as the system used in the new Ava robot, an upcoming multifunctional robot. Microsoft should then completely integrate the OS with its Azure offering. Azure will enable the connected robot to be taught more tasks, such as how to do basic or more complex household chores via additional programs running in the background. The largest challenge in unifying robotics is the differences in hardware components used by developers. By connecting the OS to the cloud, Microsoft has the ability to handle vast amounts of configurations from a central service. Finally, the goal is to open up the platform to developers and allow them to decide how the marketplace will work, similar to the app store for smart phones. While the robotics application marketplace is likely going to function very differently from that of mobile phones, having more developers on Microsoft's platform will only lead to a stronger ecosystem.

"THE LARGEST CHALLENGE IN UNIFYING ROBOTICS IS THE DIFFERENCES IN HARDWARE COMPONENTS USED BY DEVELOPERS. BY CONNECTING THE OS TO THE CLOUD, MICROSOFT HAS THE ABILITY TO HANDLE VAST AMOUNTS OF CONFIGURATIONS FROM A CENTRAL SERVICE."

After creating the platform for developers, Microsoft must develop software that will bridge the gap between robotic function software and Microsoft's current offerings. This software will allow the robot to interface with users from their desktops, mobile phones, or tablets over the cloud infrastructure Microsoft has already developed. Through successful integration of Microsoft's and iRobot's intellectual property, the company can achieve the first step in creating a Microsoft dominated robotics platform.

Microsoft cannot afford to keep stumbling with product introductions when a new opportunity presents itself. Given the value of the ecosystem and the pace at which components are added to it, Microsoft needs to proactively build out the pieces it needs to compete. By being bold and connecting robotics to its cloud service, Microsoft has the ability to boost the value of its entire ecosystem.



ORGANIC GROWTH

Whole Foods has the potential to grow revenues and maintain margins by expanding into food offerings beyond groceries

By: Nancy Zhao

The US organic foods market has undergone staggering growth, from sales of \$1B in 1990 to to \$35B in 2014. Recognizing the potential of the increasingly health-conscious American consumer, Whole Foods has successfully captured part of this market with its unique grocery-retail business model focused on organic and locally sourced foods. Its meteoric rise in popularity and sales compound annual growth rate (CAGR) of 14% has not come without notice however, and the US grocery goliaths have begun to respond. For instance, Wal-Mart has increased its organic foods offerings over the last decade to include hundreds of items, and this year began a partnership with organic food operator Wild Oats to sell more affordable organic products. Similarly, Kroger, the second largest US general retailer after Wal-Mart, has launched a billion dollar line of organic products under the brand "Simple Truth Organics".

These new entrants, attracted by the high profit margins of organic foods, are placing increasing downward pressure on prices as they fight for market share. With organic food offerings becoming commonplace in grocery retail, Whole Foods is finding it more and more difficult to justify its premium prices to customers. Although influential in driving the organic food trend, Whole Foods has become a victim of its own success as increased competition is forcing the company to drop its prices. This price decline contributed to a contraction in its gross, operating, and profit margins for the first time in five years.

Growing Pains

Whole Foods successfully established itself as a dominant player in the organic foods industry for a number of key reasons. Not only did it become a driving force in the creation of organic food standards, but the company also dedicated itself to supporting local communities and environmental initiatives. In doing so, the Whole Foods brand became recognized by consumers across the US as synonymous with 'natural and organic foods'.

Recently, Whole Foods fell short of analyst expectations for both sales and net income in Q2 2014, and saw its share price quickly sink nearly 14%. Despite exceeding analyst expectations for earnings per share in both Q3 and Q4, lower than expected Q3 and Q4 sales figures drove share prices down an additional 8%. This lackluster performance led to shareholder demands for revenue growth in addition to maintenance of current margins that have made Whole Foods the envy of the grocery retail industry.

Compounding these pressures are indicators that Whole Foods is maturing as a grocery retailer. The business has grown its



number of stores to the point of saturation in the most affluent zip codes in the US, comprised of customers that now have access to a variety of options from competing grocery stores. An unfortunate result of this past success is that it has become increasing difficult to attract new customers and resultantly Whole Foods' revenues per square footage of floor space has essentially plateaued.

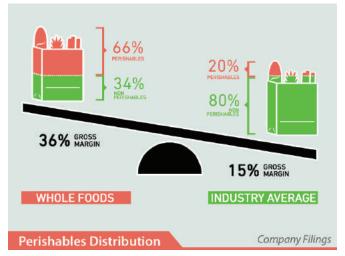
The company's reaction to recently heightened competition and rising consumer price sensitivity resulted in them shifting to a five facet strategy. Whole Foods plans to cut prices while matching cost cuts to maintain margins. The company will also rapidly expand store locations, from its number of locations from 385 to 1200 in the US alone, as well as updating 70% of its current locations. Simultaneously, Whole Foods first commercial campaign has been launched alongside a plan for an improved digital presence. This strategy comprises part of a larger effort to grow Whole Foods' customer base outside of its traditional markets, consistent with recognition of a more saturated marketplace. Whole Foods knows that it's under pressure; the once revolutionary business can no longer rely on its health-focused individuality and now has to compete under conditions of traditional grocers.

However, Whole Foods can still grow revenues driven by innovation. The company's inventory is majorly comprised of perishable goods which provide significantly higher margins, whereas typical grocers focus on non-perishables to drive top-line sales. Prepared perishable foods in particular have typical gross margins of 50% or greater, contributing a disproportionate amount to the bottom line. Indeed, Whole Foods has already started experimenting with readymade meals, with some Whole Foods locations offering "restaurant-esque" services alongside their prepared foods, like small pubs. With employees already training in meal preparation, in conjunction with Whole Food's close relationship with local farmers and communities, Whole Foods should look to expand beyond traditional grocery locations into the fast-casual restaurant market.

"PREPARED PERISHABLE FOODS IN PARTICULAR HAVE TYPICAL GROSS MARGINS OF 50% OR GREATER, CONTRIBUTING A DISPROPORTIONATE AMOUNT TO THE BOTTOM LINE"

Order Up

Entering into the fast casual market with a standalone restaurant aligns with the trends towards both fast casual dining and health conscious eating in North America, exemplified by the success of restaurants likes Chipotle Mexican Grill. Fast food restaurants have increasingly come under scrutiny for unhealthy offerings, but Americans continue to demand quick meals



during the day. Fast casual dining offers a healthier alternative to fast food, satisfying demands for organic and locally sourced produce. Additionally, fast casual restaurants have the ability to offer healthy, convenient meals that are more customizable, consistent with the demands young, busy, health-conscious Americans today who comprise Whole Foods' current consumer base.

In 2010, 30% of Americans who hadn't eaten at a fast-casual restaurant cited lack of availability for their non-participation, suggesting an unsaturated market place. According to Technomic's 2014 Top 500 chain restaurant report, sales for fast casual chains grew by 11% and store count by 8% in 2013. This indicates that the market is still fresh and growing, with Whole Foods prime to take advantage. Moreover, adding restaurants alongside the Whole Foods grocery retail business creates a myriad of potential strategic benefits. This shift will allow the company to not only continue its strategy of rapid expansion, but to help maintain and potentially increase profit margins long term. With fast casual restaurants like Chipotle and Panera Bread having a return on assets of 16% compared to 9% for Whole Foods, the company can expect to see large potential with this new venture.

Already on the Table

The development of a standalone fast casual restaurant would require characteristics already prevalent in the company. For instance, Whole Foods already has experience making hot preprepared food, as well as restaurant quality service via its 7th Ave. Pub that was opened at Whole Foods in Hillcrest, San Diego. Whole Foods' current prepared meal prices are sold at prices similar to the 8-15\$ price range of most fast-casual meals, suggesting there will be a base-level of demand at potential restaurants and demonstrating a willingness of consumers to pay a premium for a Whole Foods' offering. The company's experience with in store meals gives Whole Foods a head start on menu development and expertise on hiring employees capable of preparing dishes, as well as serving them. Additionally, Whole Foods's utilization of local producers directly measures up to existing fast casual chains who thrive on the value proposition

of fresh, organic ingredients. The company's existing supply chain can be easily adapted to provide these new restaurants with the required produce.

"WHOLE FOODS' CURRENT PREPARED
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PREMIUM FOR WHOLE FOODS OFFERING."

This shift to restaurant development also falls within the company's new corporate strategy. Whole Foods is prepared for large capital expenditure via its aggressive expansion, currently spending over \$10M in capital expenditure per store. Using Chipotle as a proxy, the company could open twelve fast casual restaurants for the same price. With trivial comparative construction costs, Whole Foods should focus on providing an innovative touch to its dining experience to ensure its success. Specifically, Whole Foods should integrate its additional corporate goal of increased digital reach into its fast casual venture.

Digital Diner

It might not be expected that Whole Foods has considerable experience in hardware or software. However, the company has developed a dedicated mobile application, currently focused on providing recipes and aggregating shopping lists. Whole Foods has indicated its plan to release improvements that incorporate loyalty rewards, order-ahead, and Apply Pay. In addition, after launching its first national branding campaign, the company retrofitted its store in Alpharetta, Georgia with screens highlighting picture feeds of farms growing the store's produce. Touch screens lined the display crates in some specialty sections, while a digital mirror encouraged shoppers to strike poses, triggering images of recommended health products. These digital elements can act as a base for Whole Food's new restaurants.

"MULTIPLE SPEAKERS FROM THE 2014
FAST CASUAL SUMMIT HIGHLIGHTED THE
RISING IMPORTANCE OF DIGITAL AND
MOBILE EXPERIENCES IN FAST CASUAL
RESTAURANTS"

Multiple speakers from the 2014 Fast Casual Summit highlighted the rising importance of digital and mobile experiences in fast casual restaurants, including menu boards, ordering processes, loyalty programs, and promotion. This trend is specifically important among millennial customers, who rely on various technologies for day-to-day activities and are a key customer segment to Whole Foods' existing business. The screen experience from the Alpharetta location can be replicated in its restaurant, showcasing the produce source location, while allowing for efficiency when changing menu items based on availability. Utilizing its new mobile app, Whole Foods could allow for pre-orders while in-restaurant, decreasing wait times, while allowing for mobile payment when the customer is finally served. Finally, A panel titled, "The Big (Easy) Idea: Reaching Millennials Via Mobile!" at the 2014 Fast Casual Summit claimed that using mobile applications to track customer data and tailor promotions and discounts is becoming increasingly important to retain customers. Features like these could be made possible through the Whole Foods mobile app. By integrating their current and developing platforms into their restaurant experience, Whole Foods can gain a competitive advantage of differentiation and innovation that is synonymous with the company's past.

Where to go for Lunch?

Whole Foods current expansion strategy stems to new markets in the US, as well as expansions in both Canada and the UK. While the company is confident that it can replicate the value proposition of its business in new markets, a pivotal challenge for these planned locations is acquiring new willing customers. As locations continue to be opened in areas away from earlier established and better fitting locations, the new customer base is potentially less likely to fall into Whole Foods' prime target consumer group - individuals with ample discretionary income and lower price sensitivity. By expanding into fast casual dining, Whole Foods can open its restaurants in its existing markets, where there is certainty of demand. This effectively allows Whole Foods to access a greater revenue per existing customer by selling them similar products, but instead as a fast meal for on-the-go, rather than groceries.

A Recipe for Success

Whole Foods has changed the grocery industry and is finally starting to feel the heat of competition. The company's differentiating factors are not enough to give it a competitive edge, but that doesn't mean it has to resort to typical grocery growth tactics. The company has all of the capabilities to expand into the fast casual restaurant business, utilizing its supply chain and shift toward technology to support a unique eating experience. Whole Foods has all of the ingredients to shift into this new segment and a recipe to get started. Now its time to start cooking.



FINDING A SEAT IN THE CONNECTED CAR

Bell must look to practices in the UK to ensure the survival of its radio segment

By Carter Friesen & Akil Fernando

There is an existential fear in the world of traditional radio, but is it warranted? Bell recently acquired 84 radio stations as part of a controversial \$3.4B acquisition of Astral Media, but many question this move. If someone wants to listen to music or talk, will they continue to turn to radio? Services like Spotify or Pandora can provide continual streamed music in the car, while iTunes or Google Play can be used to load drivers' phones with songs and podcasts. Satellite radio, on the other hand, can provide both music and curated discussions. With the development of the connected car, these may all replace traditional radio in its last stronghold, the daily commute. This could jeopardize a significant portion of Bell's return on the Astral deal and shake the confidence of shareholders, already weary of the move. Bell can avoid, and even capitalize, on this change, but only if it learns from the recent success of media players in the UK. UK players collectively introduced an internet streaming app for traditional radio called RadioPlayer. Bell should not wait for a collaboration, since it has the largest stake in Canadian radio, and should lead the market's transition of traditional radio to the era of the connected car.

An Astral-nomical Acquisition

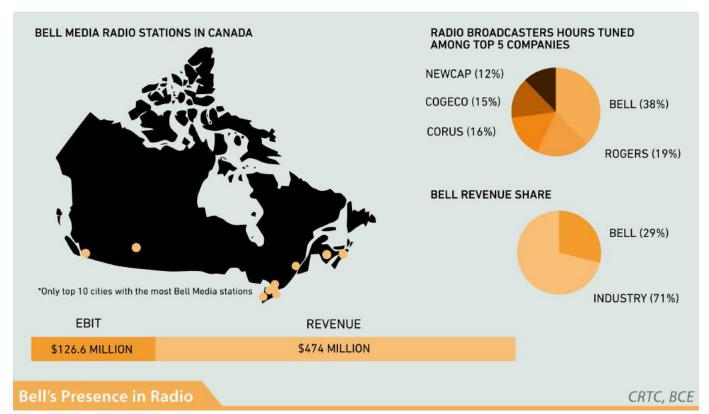
Radio is still relevant in Canada. Following the Astral Media acquisition, Bell is now the largest radio operator in the country with 107 of the country's 685 commercial radio stations, accounting for 38% of Canadian radio-listening hours. Bell Radio generates annual revenues of roughly \$474 M, with an estimated \$130 M in earnings before interest and taxes (EBIT). Ensuring an appropriate return on their significant Astral investment is contingent on Bell's ability to grow this

threatened segment of the business. Bell's growth opportunity is time sensitive, as other streaming services continue to grow and saturate a sticky business-to-business market of connected car manufacturers.

Changing Frequency

For decades, radio has remained a free community-based medium offering local information, a human touch, and curated music. To this point, the average Canadian continues to listen to radio for over 19 hours per week. However, major changes in listening habits are beginning to emerge. One in five Canadians are now streaming traditional radio stations online through their computer or mobile devices. Similarly, the percentage of Canadians using online music streaming services like Google Play Music is steadily increasing.

Radio has historically experienced consistent listening hours, revenues, and EBIT, but changing consumer preferences are set to disrupt the radio industry. The interconnected nature of smart devices and a mobile connection has begun to extend to the driving experiences of consumers, where 42% of radio listening happens. The connected car will include a fully functioning operating system and become a wireless hotspot that allows drivers to stream music and other content on the road, encroaching on radio's most consistent source of listenership. While Bell may see benefits from increased data revenues in connected cars, they have a lot more than a decreased return on the Astral acquisition at stake if they lose control of this strategic content channel.



Big Things in Small Packages

Radio continues to generate slow growth, but Bell would not be wise to reduce investment or, as some have suggested, to divest its radio holdings. Despite its minor position on the company's financials, Bell's strong radio presence means a strategic hand in all major media channels. Radio allows Bell to leverage multi-platform contracts with media personalities working across television, print, and radio. More importantly, the ability to offer a multichannel platform has become paramount to negotiating power in the telecommunications industry. Scale and scope both matter. Rogers' 12-year, \$5.2 billion crosschannel deal with the NHL is a recent example highlighting the importance of possessing multi-channel content distribution. Additionally, Bell needs to use radio to promote other segments of its business and avoid further fragmentation of the country's media mindshare. If a consumer has Google in their car, then why not have Chromecast or Google TV in their living room? If Bell is not everywhere, they could end up nowhere.

Just as Bell and other media players have been slowly transitioning TV networks to on-demand streaming and developing broader competitive on-demand services like Shomi and Crave, a similar transition strategy is necessary for their radio presence to remain relevant.

Taking a Front-Seat

While auto manufacturers are unlikely to remove the standard analog radio receiver in the near future, consumers are demanding digital radio products in a more digitized dashboard.

Bell has two alternatives to find a seat in this new connected car: adopting a previously developed solution, or developing a proprietary platform.

In the US, media player iHeartMedia developed iHeartRadio; a digital, internet-radio platform that aggregates all of their radio stations across the US into one tool. In an attempt to move into vehicle platforms in the US, iHeartRadio has forged a partnership with Apple. Bell already has a two-station partnership with iHeartRadio and could pursue increased involvement in an attempt to bring the radio solution to Canada. However, the Canadian Radio-television and Telecommunication Commission's regulatory control of traditional radio would likely delay or even block Americanowned players, such as iHeartRadio, from replacing traditional Canadian channels under its jurisdiction. The risk grows if the platform broadcasts primarily international content.

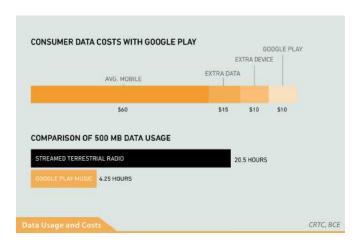
The alternative solution is a strategy being enacted in the UK, where fragmented radio groups have combined their technology to increase bargaining power with carmakers and give consumers a streamlined medium to access their favourite stations digitally. A number of radio companies created the not-for-profit Radioplayer – a cross-platform, digital radio application – and agreed to collaborate on the platform technology while only competing on content. Instead of having a different interface for every radio station's internet and app streams, Radioplayer makes the main controls and general layout of every radio station appear the same digitally with station-specific content laid within. The UK Radioplayer has formed partnerships with vehicle manufacturers, where every radio station will have a spot within a single user-friendly application, instead of

different applications. Having all competitors on one platform is status quo for radio, and collaboration is certainly better than obsolesence. Replicating Radioplayer will provide Bell the best advantage to compete in the industry's next age.

Dual Benefits

Adoption of Radioplayer's platform will do more than secure and grow Bell's radio portfolio. Control of content channels provides an opportunity to move more vehicle wireless data share onto its network, providing Bell Radio a competitive cost advantage.

Bell has the opportunity to integrate Radioplayer usage into consumer phone and connected car data plans, offering hours of Radioplayer streaming service at a lower cost than on a per MB data plan. Rogers has found similar success incentivising customers to use their mobile TV service by selling 10 hour increments of video streaming at a heavy discount to typical data rates on their network. This ends up saving the consumer significant data costs, while simultaneously pushing them onto Rogers' content and ads, making the discount mutually beneficial. For Bell, these cross-benefits will also incentivize car manufacturers to integrate the Radioplayer, as lower costs to consumers removes the friction of adopting connected car services, solidifying the manufacturers' own value propositions.



Bell will be able to actively promote the data and cost advantage of digital radio over other streaming services like Google Play Music. Currently, the average Canadian is spending \$60 per month on mobile plans. A typical Bell plan for \$60 includes 500 MB of data per month. Making use of this data and listening to Google Play, which requires more mobile data than RadioPlayer streaming, would only comprise 5% of the average 100 vehicle radio listening hours per month. Consumers will quickly be paying overage fees, an additional device fee, and subscription costs for a streaming service like Google Play. Unless data prices decline or music providers find a way to drastically decrease data usage in subscription-based music services, Bell's digital radio option will have a significant cost advantage against other streaming alternatives.

Synching Up

With a solution scaling across regions, competitors, and platforms, the threat of the connected car becomes an opportunity for Bell. Radioplayer has been very successful in the UK, increasing listening hours by 37% across the country with 7 million users, and hosting almost every UK radio station in its first year. Following the validation of this strategy in the UK, the idea of a non-profit platform similar to Radioplayer in Canada is slowly gaining traction amongst Canadian broadcasters. Now it requires the support of a major player like Bell to be successfully implemented.

For Bell, this collaboration would reduce the risk associated with building a proprietary platform in which they would bear all of the costs. In fact, Radioplayer's non-profit format suggests its licensing and operating costs will be allocated proportionally to broadcasters. The more broadcasters involved, the less it will cost each station.

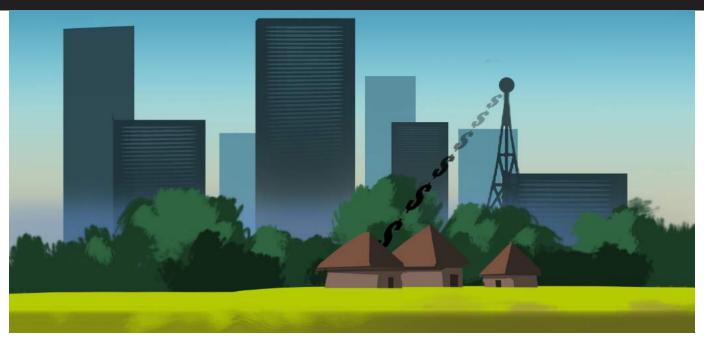
Turning up the Bass Line

Assuming Bell is able to increase radio revenues at the same rate UK companies did the year Radioplayer was introduced, Bell will generate an additional \$4.3 million in EBIT. This does not include new data charges, the additional app display advertising revenues, or any gains from the powerful ability to better track listenership, providing a more valuable product to advertisers. Lack of this data is a deterrent for advertisers who forego radio for more measurable channels to provide more transparent returns on advertising budgets.

The ongoing service fees for RadioPlayer are relatively low, estimated by the industry at only \$1,700 per station annually at a scale of 300 Canadian stations. Even if Bell's 106 stations were the only ones to sign-up, the cost would be less than \$5,000 per station per year, while Bell can sustain an annual total cost of \$40,600 per station with no decrease in profitability. The technology and model have been developed and minimal upfront costs are split in the collaborative structure.

How Bell Can Make (Radio) Waves

Bell needs to show its support for the Canadian Radioplayer immediately and partner with other radio broadcasters to retain control of radio's technology. Securing their place in the changing radio space by partnering with an all-in-one digital solution will be a quick and necessary win for the company. Radioplayer is a proven technology that consumers immediately adopted in the UK, and comes with both low risk and research and development costs. It will also benefit Bell Mobility if more Canadians stream digital radio through the mobile network and secondary revenues are generated. As a market leader with a major investment in Canadian radio, Bell's adoption of a consolidated Radioplayer could ensure the industry's position going forward and forever change the way Canadians listen to radio.



MOBILE BANKING: KENYA'S DEVELOPMENT APP

Safaricom has revolutionized the Kenyan banking system with M-Pesa, but growth still lies within the rural markets

By Raheel Jariwalla & Azzam Ramji

The M-Pesa platform has revolutionized the mobile payments space in Kenya. The business concept has had far reaching effects in many other countries within and beyond Africa through copy-cat offerings. M-Pesa was started in 2007 by Kenya's largest mobile network, Safaricom, and has grown to dominate the Kenyan market with early indicators of success in Tanzania. The service has shown significant adoption, as M-Pesa now boasts over 15 million users, conducting an average of 2 million transactions per day. Transactions fees have generated service revenue of \$300 Million USD this year alone, up 22% from last year.

"M-PESA NOW BOASTS OVER 15 MILLION USERS, CONDUCTING AN AVERAGE OF 2 MILLION TRANSACTIONS PER DAY."

The success of M-Pesa has spawned the introduction of new foreign competition in the Kenyan market, such as Airtel Money (India), Orange Money (France) and yuCash (India). As the industry grows and the competition increases their level of market penetration, the cost of cash transfer, currently \$0.11-\$3.71 USD per transactions, is becoming cheaper as rivals slash transfer rates and compete on cost . While beneficial for Kenyan consumers, this represents a disruption to the M-Pesa business. M-Pesa needs to consider extending its offering to maintain a high level of growth and engagement within the Kenyan market.

Reaching the People

M-Pesa's innovative approach to cash remittances is what allowed the service to obtain such widespread adoption across the country. Originally based on a trend in neighboring African countries where people used cellular airtime as a proxy for money in financial transactions, M-Pesa allows registered users to transfer money via SMS. Money is loaded on an M-Pesa account by trading cash for M-Pesa's virtual currency, called E-Float, with a registered agent, who are typically small local merchants.

M-Pesa has tens of thousands of authorized agents across the country to make transfers of E-Float for cash, and vice-versa. In comparison to the relatively lower amount of bank branches, M-Pesa has a much greater reach, including remote areas not serviced by traditional banking. Agents in turn get their own E-Float allowance by converting their own cash at authorized commercial banks. In this way, M-Pesa agents control the flow of cash between the various regions of Kenya, creating a vast network of middle-men that ensure cash flow across the country as needed. Once cash is deposited with an agent, it is held in trust. This means that Safaricom cannot use this cash to give loans out as banks and other depositary institutions do, which has essentially allowed M-Pesa to be approved by the Kenyan Central Bank (KCB). With this established ecosystem and its well engaged and large user-base, M-Pesa has the opportunity to expand its financial offerings and cement its position in the Kenyan market.

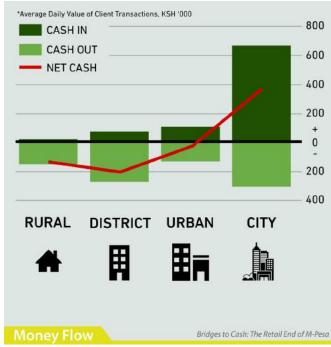
Banking on Kenya

With African lending institutions achieving some of the highest ROI's in the world, Safaricom can use its position as a leading virtual currency provider to further its penetration into the Kenyan financial market. The banking sector in Kenya has far outpaced the growth of the general economy. While the Nairobi Stock Exchange (NSE) 20 share index grew 9.8% year-over-year, two of Kenya's largest publicly traded banks, CFC Stanbic and Equity Bank, saw share price growth of 103% and 35.1% respectively over the same period.

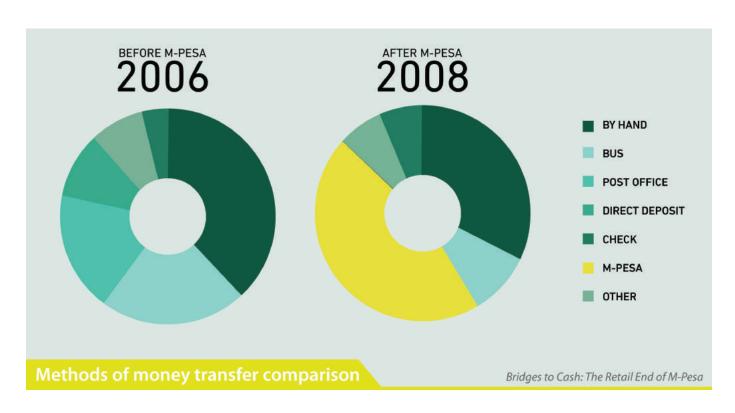
Nonetheless, this growth may not be sustainable as the Kenyan banking system is showing signs of saturation. Specifically, this saturation is derived from the fact that the urban population is reaching its banking-need limit, and therefore further growth is expected to be slower. While this may seem to indicate reduced attractiveness of the banking industry for Safaricom, further analysis of the Kenyan economy reveals some key opportunities.

The Economic Divide

A majority of Kenyan GDP growth is derived from the prosperity of the urban areas of the country, primarily the capital, Nairobi. This is highlighted by a 2014 Ernst & Young report listing Nairobi as the 3rd most attractive city in sub-Saharan Africa to invest in. Rural centers in Kenya, however, have not received the same attention and still have significant potential for growth. For instance, Nairobi has only 6% of the population living below the poverty line. In contrast only 6% of the population lives above the poverty line in Turkana, a rural part of the country, leaving significant room for development.



The rural population has also been mostly ignored by the financial services sector. The fact that 77% of the Kenyan population remains unbanked, a large portion of which resides in rural areas. The major driver for growth in Kenya will come from the development needs of rural areas. Considering the state of the Kenyan financial services market, there is a disconnect between where the financial sector is focusing its efforts and the needs of rural economies. Safaricom could take advantage of its rural reach via its mobile platform to offer more financial services to this segment and reap the benefits of growth in rural Kenya by expanding into microfinancing options.



The Unbanked Opportunity

In rural areas, funds are transferred primarily by M-Pesa or a physical cash transfer. The individuals in these areas do not have access to credit or interest bearing deposits. Safaricom has previously identified the needs of rural M-Pesa customers and hopes to solve them with their newly launched M-Shwari services. M-Shwari, the result of a partnership between Safaricom and the Commercial Bank of Africa (CBA), is a savings account and short-term lending service for users of the M-Pesa system. M-Shwari allows users to make deposits into a bank account through M-Pesa, earn interest, and take out short-loans against their balance. The bank also reserves the right to freeze any deposit balance as collateral until the loan is repaid. Although M-Shwari provides an efficient method to earn some interest on deposits, it does not meet the needs for loans. These short-term, high fee loans are good for liquidity but do not provide sustainable financing to encourage economic development in these rural Kenya areas.

Currently as much as 60% of Kenya's GDP passes through M-Pesa as E-Float. This is a significant amount of idle capital that is being tied up in Safaricom's mobile payment system and held in trust. As such, the regular cycle of deposits is not being reinvested back in the economy with more standard banking models. This large, unused source of capital, mixed with the low supply of available credit accessible to rural Kenya, makes E-Float a great opportunity to be used in microfinance. Safaricom would be able to achieve an additional source of profit, while providing Kenyan society as a whole to increase capital investment and GDP output.

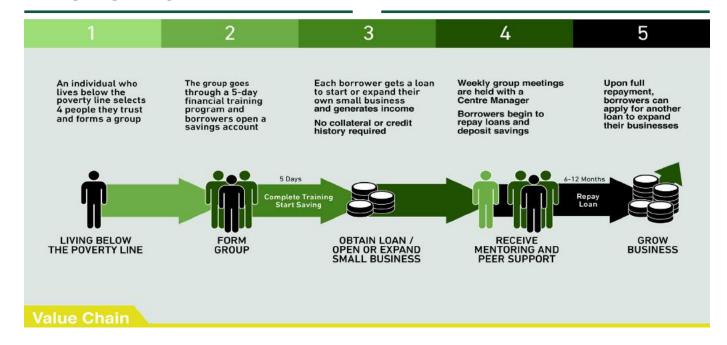
"CURRENTLY AS MUCH AS 60% OF KENYA'S GDP PASSES THROUGH M-PESA AS E-FLOAT."

Floating the Capital

The biggest barrier to this is the legality of freeing up the capital in the system. As mentioned, currently all deposits are held in trust by the commercial banks. This was a requirement of the KCB for the initial implementation of M-Pesa. Safaricom has no claim or ownership to the capital currently held in trust so therefore it is inaccessible for use. Therefore, Safaricom would have to shift the structure of their transfers to be allowed to use current and future generated E-Float. Ultimately, this would require approval from the KCB to restructure the program.

The Kenyan government has in recent years relaxed many of its financial regulations to allow for increased financial accessibility for rural citizens. Through the country's development program entitled Vision 2030, the country plans to increase banked Kenyans to 70%. Safaricom's M-Shwari benefitted from these initiatives, as the Finance Act of 2009 was amended to allow banks to use third party entities to act as agents to offer depository services without being directly licensed as a depository institution. With this service, M-Shwari is able to accept deposits and use them to issue loans as an agent of the CBA. This is very similar to the desired use of the restructured M-Pesa, and its approval signals a positive precedent for the approval of M-Pesa's restructuring.

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Secondly, the use of the capital has a strong social benefit to Kenya, and aligns well with KCB's initiative to increase the access of finances and banking services to Kenyans in rural areas. The benefit of investing a portion of this idle capital as micro-finance in the impoverished rural regions will have a major impact on the increasing economic development and lowering income disparity in Kenya.

Regardless, this potential restructuring is contingent on the approval of KCB. First Safaricom can shift M-Pesa to a model similar to M-Shwari, with users depositing E-Float rather than cash. This will allow them to act as an agent of the CBA or another commercial bank. This will have no operational effects to the consumer, as they will still be able to transfer their M-Pesa currency identically from a deposit than if held in trust. The problem is that this would require approval from the CBA and may forfeit too much control over their operations. The second option would be to create or purchase a small registered depository subsidiary that M-Pesa can facilitate or act as an agent on behalf of. This is a similar strategy taken by a Russian company called Qiwi. Qiwi is a similar service to M-Pesa launched in Russia in 2007 that offered money transfer services to individuals through kiosks and a mobile platform, but similarly did not deploy any of its capital. To increase their profitability and services to users, Qiwi incorporated a bank subsidiary in 2010, which vastly increased their profitability and accelerated their growth. Safaricom should follow in Qiwi's footsteps to have the opportunity to offer microfinancing options.

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FOLLOW IN QIWI'S FOOTSTEPS TO
HAVE THE OPPORTUNITY TO OFFER
MICROFINANCING OPTIONS."

Making Bank

Safaricom has all of the necessary components to successfully reach the unbanked rural Kenya: it has a strong distribution channel capable of reaching remote areas (developed through M-Pesa), brand value, an engaged user-base, and an imminent ability to unlock a significant amount of idle virtual currency deposits. With all these assets, Safaricom still needs to determine the best practice for deploying microfinancing options and how to deal with collateral. Safaricom should replicate the business model implemented by the Bangladeshi microfinance

institution Grameen Bank to deliver financial services to rural Kenyans.

The Grameen Bank business model provides small loans to the impoverished without requiring a form of collateral. Instead, it builds a peer-to-peer lending system that takes a group-based credit approach and uses peer-pressure within a group to ensure borrowers repay their debts. This peer-to-peer lending model has been tried and failed in developed, capitalist markets. However, the social culture in Kenya is ideal for this business model due to existing collectivistic social ideals of placing the group over the individual. The proactive mindset of the people enforces self-governance and debts are repaid to avoid social consequences, thus ensuring low default rates as seen in Bangladesh.

"THE GRAMEEN BANK BUSINESS MODEL PROVIDES SMALL LOANS TO THE IMPOVERISHED WITHOUT REQUIRING A FORM OF COLLATERAL. INSTEAD, IT BUILDS A PEER-TO-PEER LENDING SYSTEM THAT TAKES A GROUP-BASED CREDIT APPROACH AND USES PEER-PRESSURE WITHIN A GROUP TO ENSURE BORROWERS REPAY THEIR DEBTS."

Given that Safaricom has the largest number of cell towers in the country and the strongest coverage, they have immediate access to close to 90% of the country's population. Segmenting this group into discrete communities allows Safaricom to effectively implement the peer-to-peer lending model. With funds allocated on a community basis, the overarching social forces will work to ensure a high rate of repayment, and will create a diversified loan portfolio with a manageable risk profile.

Safaricom already has established connections to their customers through their highly successful mobile products, creating substancial brand value and customer loyalty. By expanding its M-Pesa offering to better serve the rural market through peer-to-peer microfiance loans, Safaricom can continue to improve its position in Kenya. They stand to create considerable value for Kenya's empovrished rural population, while expanding their own revenue base and capturing significant growth potential in rural financial services.





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