IVEY BUSINESS REVIEW

BLUE APRON: COOKING AT HOME AWAY FROM HOME

To maintain industry leadership, Blue Apron needs to secure partnerships and diversify into new revenue streams **| P.44**

TECHNOLOGY P.8

Uber: From Principled Confrontation to Value Creation

Facing regulatory pressure and competition, Uber needs to establish public-private partnerships with municipalities

FINANCE P.32

Sharks vs Builders: Winning in India's Distressed Credit Space

With the advent of new opportunities, global credit investors should consider India's steel sector

TECHNOLOGY P.16

Medium: A Happy Medium Between Passion and Profits

Medium needs to move into the e-learning space as a passion platform to find a path toward sustainable growth

THE IVEY HBA STUDENT BUSINESS STRATEGY MAGAZINE

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

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Note from the Editorial Board:

“Gaining from Disorder”

Nassim Taleb once introduced the idea of antifragility, the notion that an individual or organization benefits from uncertainty and chaos that extend beyond its preset threshold. With disruption and change as prevalent as they are in today's business landscape, it has never been more important for businesses to embrace risks and prepare for the improbable. In short, while the resilient resist shocks, the antifragile become better.

Companies today face shocks that extend beyond what is considered normal operations. By accepting the status quo and dismissing any appetite for bold solutions, firms risk becoming fragile. In the Spring 2018 issue of the *Ivey Business Review*, our team explores 12 companies with established operations that must confront developing headwinds.

With Blue Apron facing risks from competition and substitutes, we recommend a partnership with Airbnb to enter the travellers market and diversify revenues. In light of legal disputes and growing competition, our article on Uber recommends partnering with governments to improve relations with regulators and remain competitive. With changing bankruptcy policies in India, we present a playbook on the promising distressed credit opportunity. Lastly, our feature on Medium recommends a shift to an educational passion platform that allows readers to discover and learn from content creators.

Our articles on Etsy, 23andMe, Disney, AM Resorts, and Whole Foods present novel strategies that strengthen the company for the long term. Finally, threatening conditions in the current business environment present challenges to Cortana, Hapag-Lloyd, and DAVIDsTEA, which all require a shift against established business strategies to address.

As with all issues of the *Ivey Business Review*, we hope you will be inspired by the material within. Casting our eyes on the changing landscape and reflecting on the challenges of today, we believe the following to be apparent: for companies to thrive, they must seize bold opportunities to not only resist the shocks of today, but to gain from disorder.

Sincerely,

Leroi Yu and Eva Xu

Editor-in-Chief and Publisher

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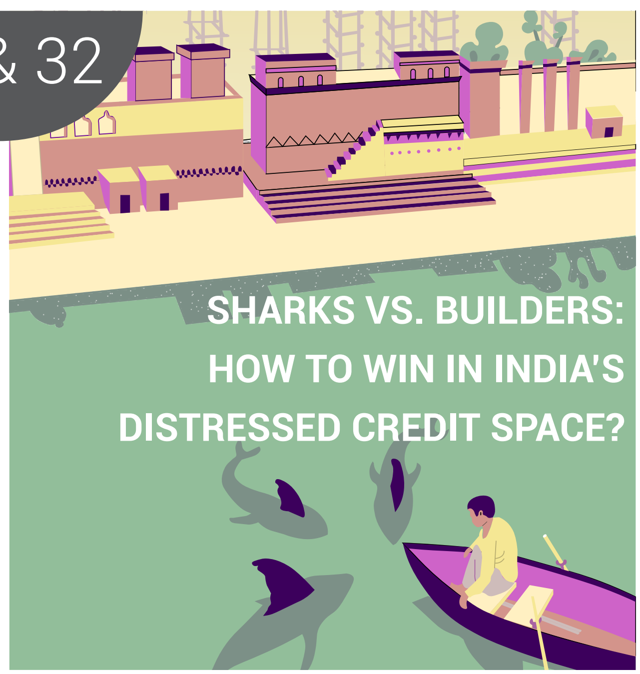


UBER: FROM PRINCIPLED CONFRONTATION TO VALUE CREATION

Facing regulatory pressure and competition, Uber needs to establish public-private partnerships with municipalities

Raunak Gera and Adam Gillman

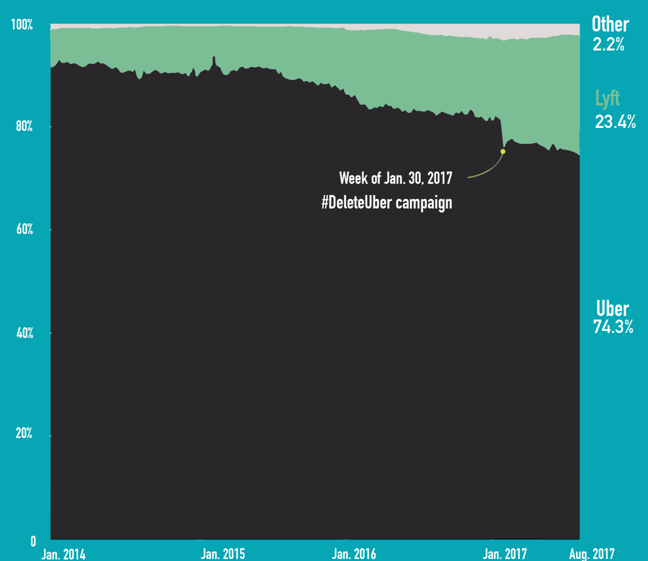
Illustration by: Rosie Fan

A Bumpy Path

When Uber Technologies Inc. (Uber) shareholders agreed to sell a 17.5-per-cent stake in the company to a Softbank-led consortium in December 2017, the implied valuation was approximately $48 billion, a significant discount to its previous $69-billion valuation. Analysts partially attributed Uber's decline in value to legal and regulatory issues: the company currently faces numerous class-action lawsuits, burdensome financial penalties, and bans in certain jurisdictions. Furthermore, the emergence of other ridesharing platforms has raised questions about Uber's ability to differentiate its service offering and achieve its goal of becoming the global leader in transportation and logistics. Given that Uber's newly appointed CEO Dara Khosrowshahi has targeted 2019 for a potential initial public offering (IPO), Uber must quickly insulate itself from competition and improve relationships with regulators to resume its previous growth trajectory.

When expanding into a new city, Uber's traditional strategy centred around stealthily signing up drivers and aggressively discounting its service to quickly develop a large customer base. When faced with political backlash, the company would leverage public support for the service to pressure regulators and negotiate from a position of strength. If these tactics proved unsuccessful, Uber would then take extreme measures to avoid being shut down. In certain jurisdictions, the company launched controversial programs like Greyball and Ripley, which actively worked to deny rides to authorities and hide data from governments.

UBER'S LOSS OF MARKET SHARE TO LYFT



Source: Second Measure

While this confrontational approach facilitated rapid growth, it also jeopardized operations in several key markets. In the last two years, Uber faced over $100 million in fines and was banned from critical geographies, including London, England. The company currently faces over 400 lawsuits in addition to criminal prosecution from the U.S. Department of Justice, which has significantly impeded Uber's growth efforts.

In the locations where Uber has been able to make inroads with regulators, competitors have taken advantage of the now favourable business environment and entered the market. In Toronto, for instance, Uber fought multiple court injunctions and aggressively lobbied city hall for years in order to be allowed to operate. Lyft then entered the market in late 2017—five years later—and was discreetly granted a license. Lyft Co-Founder and President John Zimmer mentioned in an interview that he learned from Uber's mistakes when entering uncharted territory, demonstrating what analysts have called a "second-mover advantage." As a consequence, Uber has been losing considerable market share to Lyft. Since its inception in 2012, just three years after Uber was founded, Lyft has grown its market share to capture 23.4 per cent of the U.S. ridesharing market.

A Different Tone

Having witnessed the success of ride-hailing company Grab and its expansion model in Southeast Asia—working with governments before entering markets instead of subverting them—Uber is now changing its approach to dealing with regulators and leaving behind the "principled confrontation" approach used under former CEO Travis Kalanick.

In May 2017, Uber launched a pilot program with the town of Innisfil, Ontario that generated little publicity, but could be at the foundation of its new expansion strategy. Instead of developing its own public transit infrastructure at an estimated cost of C$1 million, Innisfil opted to partner with Uber to provide on-demand microtransit. The arrangement gave Innisfil residents a C$5 discount for any Uber ride within the city and lowered the cost of transiting to key destinations to fixed rates ranging from C$3 to C$5. In a report evaluating the impact of the pilot program, Innisfil's senior policy planner revealed that the partnership with Uber required an average gross subsidy of C$5.73 per passenger, compared to a projected subsidy of C$33 per passenger for a permanent bus route.

For larger cities with higher transit ridership, Uber can be used to complement existing public transportation infrastructure. Uber's partnership with the Pinellas Suncoast Transit Authority (PSTA) in Pinellas County, Florida, proves to be an interesting case study. The program attempted to solve the "first-mile-last-mile" problem of getting riders to their nearest bus stop, and from bus stops to their final destinations. The county was split into zones with stops that serve as transit hubs for multiple bus routes and Uber. For trips within the same zone that start or end at the designated transit hubs, the PSTA covers $5.00 of the $5.95 fare, leaving the rider to pay the remaining amount. The program, in its piloted version, saved the PSTA $100,000 per year while simultaneously improving transit services.

A Menu of Public Services

Uber's pilot programs have not only demonstrated the advantages of using Uber to provide public transit services but have also validated the idea of Uber entering into government partnerships to provide more efficient public services as a whole. As part of its expansion strategy, Uber could offer a menu of services to cities designed to introduce cost savings and increase constituent satisfaction by meeting each city's unique transportation and logistics challenges. Given Uber's current capabilities, the company could also drastically improve the current state of wheelchair-accessible transportation and non-emergency medical transport to hospitals.

Microtransit

Uber's two successful pilot projects have demonstrated the viability of microtransit. Moving forward, the company should consider launching value-added features to further improve its transit offerings.

For instance, Uber could offer a metropass extension in partnership with transit operators that would offer passengers a fixed number of discounted rides to and from public transit hubs in exchange for a monthly fee. The added passenger volume associated with such a service would deter drivers from leaving the platform while reducing rider churn, as commuters who habitually use Uber to connect to public transit would be unlikely to switch to Lyft for a private taxi ride.

Microtransit can also increase the value that Uber provides municipalities through data analytics. Namely, Uber could predict volume to and from transit stops, enable cities to better estimate demand in real time, and optimize route frequency. By incorporating actionable, real-time data into its value proposition, Uber can carve out a niche as, effectively, the Research and Development (R&D) arm of transit commissions. Such partnerships could in turn offer Uber unparalleled insights into commuter habits and allow the company to gain an advantage in data analytics over its competitors, which may pave the way for future Uber ambitions like its autonomous vehicle program.

Accessible Transportation

In order to meet the mobility needs of their constituents, many transit operators offer wheelchair-accessible "Dial-a-Ride" services for the elderly or mobility-impaired. Operators generally absorb massive losses to provide these services, given their capital-intensive vehicle requirements and low fare recovery ratios. As an example, the Toronto Transit Commission (TTC) operates the Wheel-Trans accessible transit service, which received C$119 million of government subsidies in 2016. That year, Wheel-Trans operated a fleet of 199 accessible vehicles. When Uber entered the accessibility market in Toronto with UberWAV in 2016, it had a fleet of over 550 wheelchair accessible vehicles and was able to offer trips at prices comparable to UberX, the company's economy offering.

If the TTC contracted Uber to deliver the services provided by Wheel-Trans, the city's cost to provide these essential services would drop between C$40 million to C$80 million. Assuming consumers continue to pay the cost of a typical TTC fare, C$7 million of revenue can be expected to offset the cost of this program.

Non-Emergency Medical Transportation

In early 2018, Uber launched a partnership with Circulation, a private Health Insurance Portability and Accountability Act (HIPAA) compliant non-emergency medical transportation (NEMT) company based in the United States. The NEMT market exists to allow patients better access to care while remaining more affordable than ambulance services. Although Medicaid spends $3 billion annually on NEMT services, 3.6 million Americans continue to miss medical appointments each year due to transportation problems. While Uber's partnership with Circulation serves as proof that the company is capable of providing this service, greater margins can be realized by partnering directly with governments.

A New Route

The recommended services offer cities an enticing value proposition: Uber can improve transportation while also reducing costs, increasing constituent satisfaction, and allowing legislators to focus on other issues.

Interestingly, a partnership with Uber can make the distribution of tax dollars more equitable. Typically, initiatives to improve transportation services require large capital investments. This requirement results in having property value increases clustered around areas that directly benefit from the projects' completion. A common criticism is that the corresponding increase in property taxes results in taxpayers subsidizing a service they may not necessarily use; from the perspective of a politician, this results in voter attrition. A partnership with Uber would help governments meet one of their key objectives of benefiting citizens equitably through public services.

Defining Their Road Map

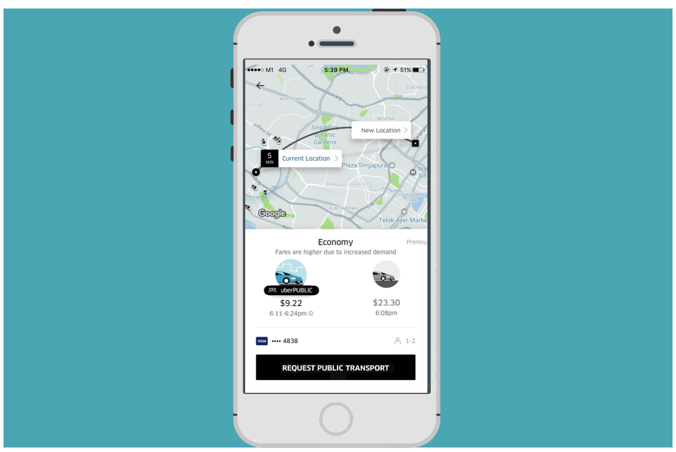
While the proposed services will provide some additional revenue for Uber, their greatest benefit will be the tremendous impact on the company's traditional ridesharing business.

Ease of Expansion into New Markets

Reduced Regulatory Pressure

These partnerships would lay the groundwork for increased government collaboration in the future. Given that heavy regulations have significantly impeded Uber's growth in the past and lobbying has been a major expense for the company, a positive relationship with the government could significantly improve the future potential of Uber's current operations. It would similarly position the company to favourably influence regulation of the emerging autonomous vehicle industry, a space in which the company has already invested over $1 billion.

NEW UBER USER INTERFACE



Reduced Subsidy Requirement

The greatest effect of government partnerships will be their impact on Uber's bottom line. Uber currently absorbs substantial losses when expanding to a new city; the firm cuts prices heavily to encourage customers to adopt the service but has to maintain high wages for drivers in order to increase market penetration. While this model is effective at driving user growth, it is very costly. In 2015, the firm spent $1.7 billion on ride subsidies, with customers paying just 41 per cent of the cost for their trips, on average. In a model where governments use Uber to reduce their own costs of providing transit and other services, consumer promotions and associated discounts would be reduced while drivers would be compensated at the same level. In essence, governments would bear a significant portion of this customer acquisition cost—Uber's largest expense during expansion.

Improved Experience for Drivers

These programs would also provide more favourable conditions for drivers, thus encouraging them to service these routes when available. Trips are more likely to be recurring and on predictable routes, allowing drivers to regularly find riders near high-traffic zones. A microtransit zoning system will ensure rides connecting passengers to and from transit hubs will be shorter in length and thus more profitable relative to total distance driven, given that base fares would be compounded over a greater number of rides. Partnerships with cities could also include clauses allowing Uber drivers access to high occupancy lanes or discounted tolls to increase the supply of drivers.

Branding and Growth

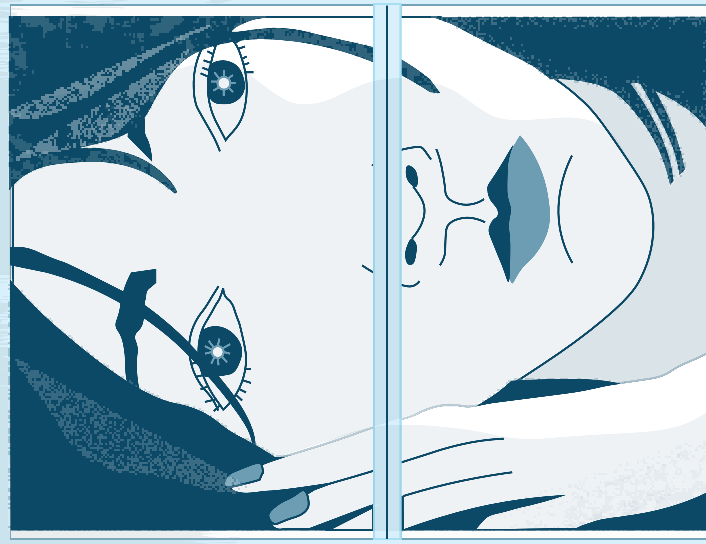
Public-private partnerships (PPPs) can serve as a catalyst for explosive growth, as government subsidies and an implicit endorsement of Uber would facilitate increased adoption, making ridesharing more accessible and desirable to a broader set of customers. For instance, it is possible that riders who previously hesitated to use Uber would trust the service more if the company became an official public transit provider.

Steering in a New Direction

When Uber selected Pittsburgh, Pennsylvania as the inaugural city for its driverless car experiment, Mayor Bill Peduto commented: "You can either put up red tape or roll out the red carpet. If you want to be a 21st-century laboratory for technology, you put out the carpet." Going forward, Uber should embrace this co-operative approach and offer cities solutions that address long-standing pain points rather than confrontation, with a value proposition that results in increased constituent satisfaction and taxpayer savings. PPPs would also position Uber well for the mass market introduction of high-impact technology like autonomous vehicles, as they would allow the company to influence regulation of the space and become the vendor of choice once adopted by governments.

Public services such as microtransit, NEMT, and accessible transportation complement—and can be delivered through—Uber's existing infrastructure. Servicing these new markets will increase the utilization of its core ridesharing business, which will increase its revenues. Most importantly, it will assist the company in overcoming the regulatory obstacles that have limited growth and presented challenges. Ultimately, addressing these issues in a timely manner will help Uber solidify its position as the market leader and set the stage for a successful IPO in 2019.

CORTANA: STRUGGLING TO BE HEARD



Facing rising competition, Microsoft should capitalize on its strengths in the enterprise space and position Cortana as a business productivity tool

Yaasir Dayani and Shehryar Mansoor

Illustration by: Morgan Zhuo

System Launch

Founded in 1975, Microsoft has come to revolutionize the personal computing space. Recently, the company cited artificial intelligence (AI) as a significant opportunity and has supported this interest through acquisitions of companies. These include Solair, which specializes in Internet of Things (IoT) services, and Genee, an AI scheduling assistant. These AI investments increase the firm's sophistication and capabilities of key offerings such as Azure and Office 365 and support Microsoft's AI platform, a series of intelligent tools and services for developers. Central to this effort is Microsoft's intelligent personal assistant (IPA) Cortana, as it acts as a control centre for other connected hardware and software in its ecosystem. To stay relevant, Microsoft must establish a strong IPA and build out its integration to address the future of connected devices, since connected devices are expected to grow to 23.1 billion in 2018. Microsoft must look for ways to capitalize on its strengths in enterprise offerings and develop a strategy to excel in the fast-paced IPA and voice-enabled smart speaker market.

Intelligent Personal Assistants (IPA) & Smart Speaker Market

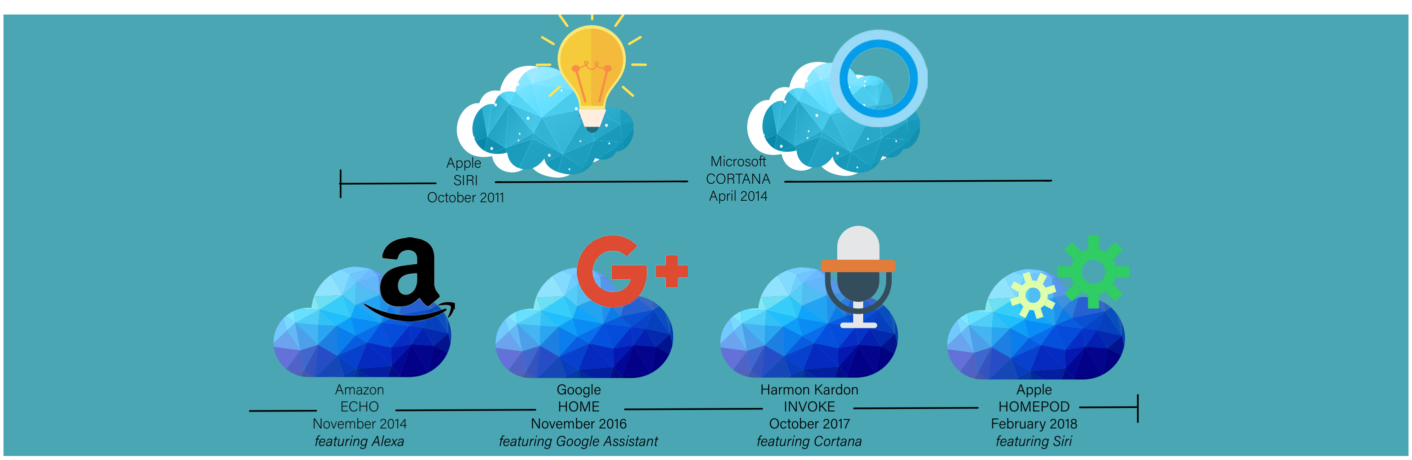
The $6-billion IPA industry has experienced explosive growth and is forecasted to expand at a compound annual rate of 34.9 per cent from 2016 through 2024. IPA products, initially available through smartphones, are now also accessible through wearable technology, computers, and stand-alone devices. A key addition to the IPA market is the emergence of the smart speaker, a stand-alone voice command device that carries the full functionality of the IPA. The smart speaker market has seen massive growth, with more than 39 million Americans now owning a smart speaker, up 128 per cent from January 2017. The smart speaker acts like a control centre for smart software and hardware, which make up the rapidly growing IoT market, estimated to be worth $561 billion by 2022. Subsequently, the smart speaker acts as an interconnective tissue between the integrated software and hardware products. As the market evolves, key success factors for both IPA and smart speakers will include low error rates in speech recognition; a wider variety of "skills", functions and features used on the system; and compatibility with different smart-home and IoT products.

In the race to dominate the smart speaker market, Amazon and Google have emerged as clear market leaders thus far. As of Q4 2017, Amazon had captured 52 per cent of the U.S. market while Google held 36 per cent. Apple poses an immediate threat with the February 2018 release of the HomePod. These large incumbents have bet on smart speakers for many reasons. Amazon does not advertise directly through Alexa, rather, it responds to purchase queries with subtle sponsored or preferred product suggestions through its online e-commerce platform. In addition, Amazon has considered providing speaker data through voice transcripts to developers to expand the offerings available through the Echo. As the world's largest digital advertising company with $90 billion in 2016 revenues, Google also seeks to benefit from the host of consumer data that can be gathered from smart speakers. This data can be fed into its AdSense network to provide users with more targeted suggestions. Using smart speakers, these companies are collecting valuable user data to power their core services.

Microsoft Cortana Background

Microsoft first entered the IPA market through the release of Cortana in early 2014. By 2017, Cortana had expanded to Windows 10 Mobile, Windows 10 PCs, and Xbox One. The IPA has its technical merits; the speech recognition software used by Cortana has a 5.1-per-cent voice recognition error rate, lower than Siri or Alexa and in line with professional human transcribers. However, as competitors began pushing their smart speaker devices,

ALTERNATIVES CURRENTLY ON THE MARKET



Source: IBR Analysis

Microsoft started to lag behind. The company's Invoke speaker, launched in partnership with high-end speaker manufacturer Harman Kardon, was a late entrant to the market in October 2017. It launched nearly three years after the release of the Amazon Echo in November 2014 and nearly one year after Google Home in November 2016. Though the speaker features superior sound performance, Invoke is still struggling to differentiate itself with a meagre market share of 1.3 per cent.

CortaNot Working

Microsoft's inability to capture significant market share stems from three major challenges with its IPA: lack of hardware integration, limited functionality, and insufficient voice data collection.

Poor Hardware Integration

Superior integration with other hardware and software is one factor that distinguishes IPA offerings from competitors. Google Assistant and Alexa are compatible with over 1,500 and 800 smart home devices respectively. In contrast, Cortana is only compatible with a handful. Microsoft has announced plans to bring Cortana to a greater number of devices in the smart-home market and has demonstrated this by forming partnerships with companies such as Honeywell and Geeni to produce more Cortana-powered smart home devices. However, competitors such as Google, Apple, and Amazon, currently have the advantage in consumer markets with their device compatibility and market share. Overall, inferior hardware integration and weak consumer focus will hinder Microsoft's competitiveness in smart-home products. Microsoft's strength lies in its strong footing in the enterprise software space where it can take advantage of integration with already-established technologies and platforms.

Limited Functionality, Skills, and Developer Base

A key value proposition of IPA products is the seamless integration with third-party applications and smart products through product skills. An essential aspect of functionality for an IPA is the breadth of skills offered. Amazon and Google offer developer kits that can be used to create specific applications for the two voice platforms. Microsoft offers a similar software development kit (SDK); however, it was launched in November 2017, far later than Amazon and Google. As a result, Cortana currently incorporates approximately 240 skills compared to Google Assistant's 1,800 and Alexa's 26,000. Furthermore, Amazon recently launched the Alexa Mobile Accessory Kit, which gives manufacturers the ability to connect to Alexa services via the Internet and integrate Alexa into a more diverse range of devices. Due to the lack of devices currently incorporating Cortana and the late launch of its SDK, the IPA has fallen behind in developing skills and establishing a solid developer base. As developers continuously choose larger platforms, such as Alexa, a negative feedback loop will be created, causing an ever-widening functionality gap between Cortana and other IPAs.

Lack of User Data

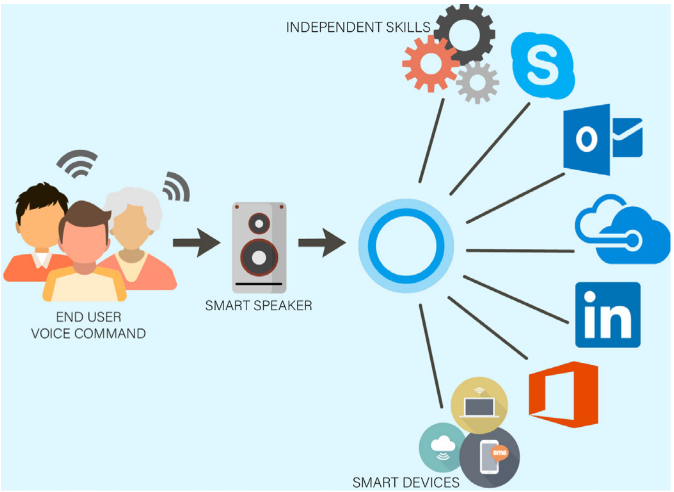
A key competitive asset for companies in this space is the voice data collected by voice-enabled smart speakers. Through their always-on feature, IPA products use machine learning algorithms to improve their accuracy over time. As samples available for learning increase, the algorithm adapts and improves its understanding of user commands to provide more accurate answers and actions. Companies, such as Google, with 15 exabytes of user data, feed voice data into their IPA products, allowing them to better understand user commands and improve overall performance of the products. As a result, high levels of data collection are key in driving IPA learning.

Cortana in the Enterprise Space

To succeed, Microsoft must address Invoke's limited functionality, hardware integration, and user base. Microsoft has held a strong foothold in enterprise applications—its Azure platform commands 10 per cent of the public cloud market share, while its Office 365 suite surpassed Salesforce to become the most widely used enterprise cloud tool. Compared to Amazon, Google, and Apple, Microsoft's strengths do not lie in the consumer market, but rather in the B2B space. Given its competitors' successes in integrating collected data with their existing strong product offerings, Microsoft should refocus its resources to launch Cortana speakers designed for business use. With this speaker, Microsoft will pivot the focus away from consumer-facing smart home products to an intelligent productivity tool, ultimately using the data gathered to enhance its business analytics tools and paving the way for future personal assistant ventures. This tool will target the smart workplace, a $22.2-billion market that includes technologies promoting connectivity in workplaces.

"Compared to Amazon, Google and Apple, Microsoft's strengths do not lie in the consumer market, but rather in the B2B space."

FUNCTIONALITY AND INTEGRATION



Source: IBR Analysis

Business Use Cases

Cortana is already integrated within existing Microsoft products, presenting an opportunity to provide increased utility to business users. Commercial products, such as LinkedIn, Skype for Business, Outlook, Azure Active Directory, and Power Business Intelligence (BI), can be integrated with Cortana to increase office productivity. For example, Word or OneNote could be used to take audio input through Cortana to transcribe text, while tools like Excel will be able to organize data and use voice commands to perform basic analysis. Similarly, Outlook could use Cortana to organize emails, meetings and schedules. Cortana could also be integrated with Microsoft analytics tools such as Power BI. This tool provides the ability to create and monitor custom dashboards that can present data in different forms. Increased user data, skills and function developers, and client interaction will enhance Cortana's functionality moving forward.

Cortana could also offer tailored solutions and skills for businesses. Within enterprises, Cortana can be integrated with internal user directories and intranet systems to allow for greater connectivity. Said integration and skills have already been brought to the marketplace by Alexa for Business, Amazon's IPA offering for enterprise use. Key clients for Amazon, such as Capital One, have utilized tailored skills to check status updates for events and high-severity issues and have used the Alexa Business API to build self-enrollment capabilities for users. However, with Microsoft's existing customer relationships and business software capability, the company is poised to succeed compared to competitors in this space.

Developing Skills & Implementation

To facilitate this release, partnerships should be created with firms that specialize in skills development, such as POSSIBLE Mobile and Mobiquity, to ensure Microsoft can scale quickly and without significant internal investment. Considering Cortana's late entry into the market and competitors encroaching on the enterprise space, outsourcing this capability will reduce go-to-market speed.

Cortana should prioritize targeting its existing business customers. Microsoft could generate revenue by selling Cortana as an optional feature in existing enterprise software service. Alternatively, Cortana can replicate the same revenue model as Alexa for Business, the only major competitor within the enterprise smart speaker market. Under this model, Microsoft would generate revenue by charging a monthly fee for two components: the number of users, and the number of speaker devices. This model will generate a recurring revenue stream, compared to the one-time purchase model for speakers in the home market while simultaneously strengthening Microsoft's product ecosystem.

In addition to providing increased productivity, the collected user data can be fed into Microsoft's suite of productivity tools, most notably Microsoft Azure and Power BI. Incorporating workplace data will enhance features and functionality, providing even more value to enterprise customers. In addition, Microsoft's existing enterprise customer base offers the scale required for a substantial user base, ensuring Microsoft keeps up in terms of gathering user data needed to improve IPA functionality. Lastly, the scale of the operations will enable Microsoft to secure manufacturer contracts and a sizable developer base for future expansion.

Windows of Opportunity

As competition within the industry heats up, Microsoft has an opportunity to leverage its strengths and apply its IPA to a new market altogether. While all major players within the industry are focused on the race for smart home supremacy, Microsoft is uniquely positioned with its stronghold in the enterprise space. In an increasingly competitive environment, Microsoft must choose to adapt or risk missing out on an integral opportunity in the artificial intelligence market.

MEDIUM: A HAPPY MEDIUM BETWEEN PASSION AND PROFITS

Medium needs to move into the e-learning space as a passion platform to find a path toward sustainable growth

Serene Chen and Grace Lu

Illustration by: Amaara Dhanji

Beginning the Story

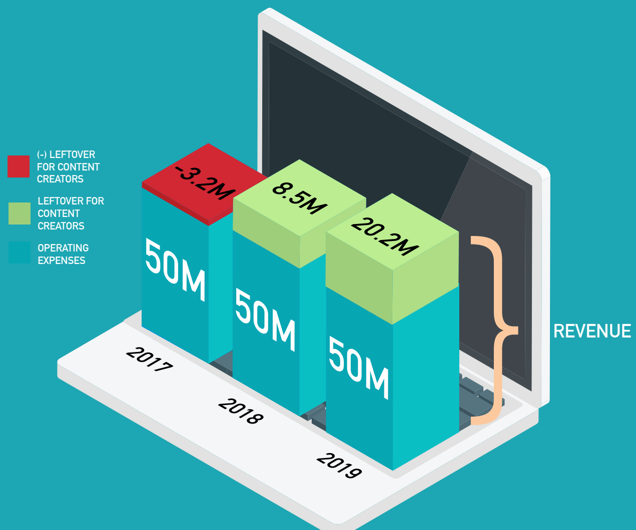
With stories ranging from self-improvement to machine learning, Medium is the go-to online publishing platform for reading, writing, and sharing stories. Founded in 2012 by Evan Williams, the former chair of Twitter, the company boasted 60 million monthly active readers in 2016, representing a 140-per-cent increase from the previous year. Today, Medium is seen as a centralized blogging platform for all types of content creators, including amateurs, publications, and academics. While the company has experienced rapid growth, fundamental issues with its business model have precluded it from reaping profits and ultimately have forced it to rely heavily on venture capital (VC) to remain afloat. To alleviate its unprofitable reliance on external funding, it is recommended that Medium enters the e-learning space.

From Small to Medium

Medium creates a middle ground between the informative nature of journalism and the personal nature of blogging. Readers often go to Medium to share their passions and stories, while they go to competitors such as Quora for answers and discussion. In addition to individual stories, the platform is popular for publications—groups of stories centred around one theme that have been major drivers of reader growth. Medium initially built this identity by focusing on helping content creators become profitable and reach audiences by promoting quality content. As such, the platform's value proposition to creators was three-fold:

- First, Medium handled the hosting and technical support competencies, which allowed publications to focus exclusively on content creation;

EXISTING MODEL CASH GAP



Source: *IBR Analysis*

- Second, publications were offered revenues based on clear, objective metrics. In one example, a content creator received $3.00 for every thousand views; and

- Third, Medium offered exposure to a large reader base of 60 million monthly active users. These value propositions were enticing enough for publications to switch to Medium from traditional blogging platforms such as WordPress or Blogger. For example, *The Bold Italic*, an online magazine based out of San Francisco, generated enough advertising revenues to reach profitability once it relaunched on Medium. With this model, Medium generated revenues from selling banner advertisements at the bottom of premium publication content.

As a result of this tangible value proposition, Medium witnessed explosive growth in its readers and engagement. Because of the network effect, this value proposition was further amplified as more content creators joined the ecosystem.

Moving to the Paywall Model

In August 2017, Medium stopped selling advertisements and replaced them with the Partner Program. The rationale was that by having revenue directly correlated to the number of clicks and views, the old model created poor incentives that would harm content quality. The new program would allow content creators to place stories behind a paywall and would change the compensation structure to use an algorithm that employs metrics such as "claps"—a measure of appreciation—and reader time. To access stories behind the paywall, readers would have to pay a monthly $5 subscription fee to join and obtain unlimited access. The transition involved laying off 50 employees and closing Medium's satellite offices in New York and Washington, D.C. Although drastic, Williams and his team wanted to realign their focus to reward creators "based on the value they are creating for people." From the perspective of the content creators and publishers, this shift suddenly put their previously predictable revenues in a state of flux.

Breaking Down the Paywall

The primary reason that this model will not work for Medium is that it jeopardizes the company's key resource: its relationship with content creators—specifically publications. The latter group was not informed in advance of the company's decision to implement a paywall model, and consequently interpreted this shift as Medium turning its back on them. The loss of stable advertising revenue also meant that Medium lost one of its most differentiable value propositions to content creators. Many of Medium's most popular publications left the platform in what was called a "Medium Exodus." Among these publications were *The Awl, Backchannel, The Ringer, The Billfold, The Pacific Standard, Film School Rejects, and Thrive Global*, which had over 640,000 combined subscribers and were all among Medium's top 100 publications. To this day, these publications have not returned to Medium, resulting in continued doubt regarding the efficacy of the change.

Furthermore, the paywall model fails to turn the company into a sustainable business. Medium received $50 million of Series C funding in 2016, which the company used to fund operating expenditures and other cash outflows such as capital expenditures. With the goal of reducing its reliance on VC capital, the paywall model must generate enough revenues to cover royalty costs to content creators and the various cash outflows associated with the $50 million. However, the company is facing difficulties in paying content creators in the first year of the paywall implementation. Even under the assumption of 30-per-cent and 25-per-cent reader growth rate in 2017 and 2018 respectively, Medium is estimated to only generate enough money to pay about 7,500 content creators in 2018—a negligible amount compared to the total number of content creators on Medium.

Writing a New Story

Despite the obstacles that the company has faced, Medium continues to remain a go-to platform for amateurs, experts, and companies to share knowledge, insight, and passion. To remain a valuable platform for content creators and become financially viable, Medium should establish a separate educational passion platform. Specifically, content creators can use this to create courses on their preferred topics in addition to writing stories on the main platform. Content creators can choose to have their course content delivered in a combination of methods like podcasts, written series, or live streams. Medium essentially expands its knowledge-sharing ecosystem with cross-promotion between a content creator's stories and their courses. This also further incentivizes the production of quality content, as the stories act as the content creator's evidence of subject matter expertise. To monetize, content creators can set a monthly subscription price that subscribers would pay to gain unlimited access to courses produced by the same content creator.

Who Will Clap for Medium?

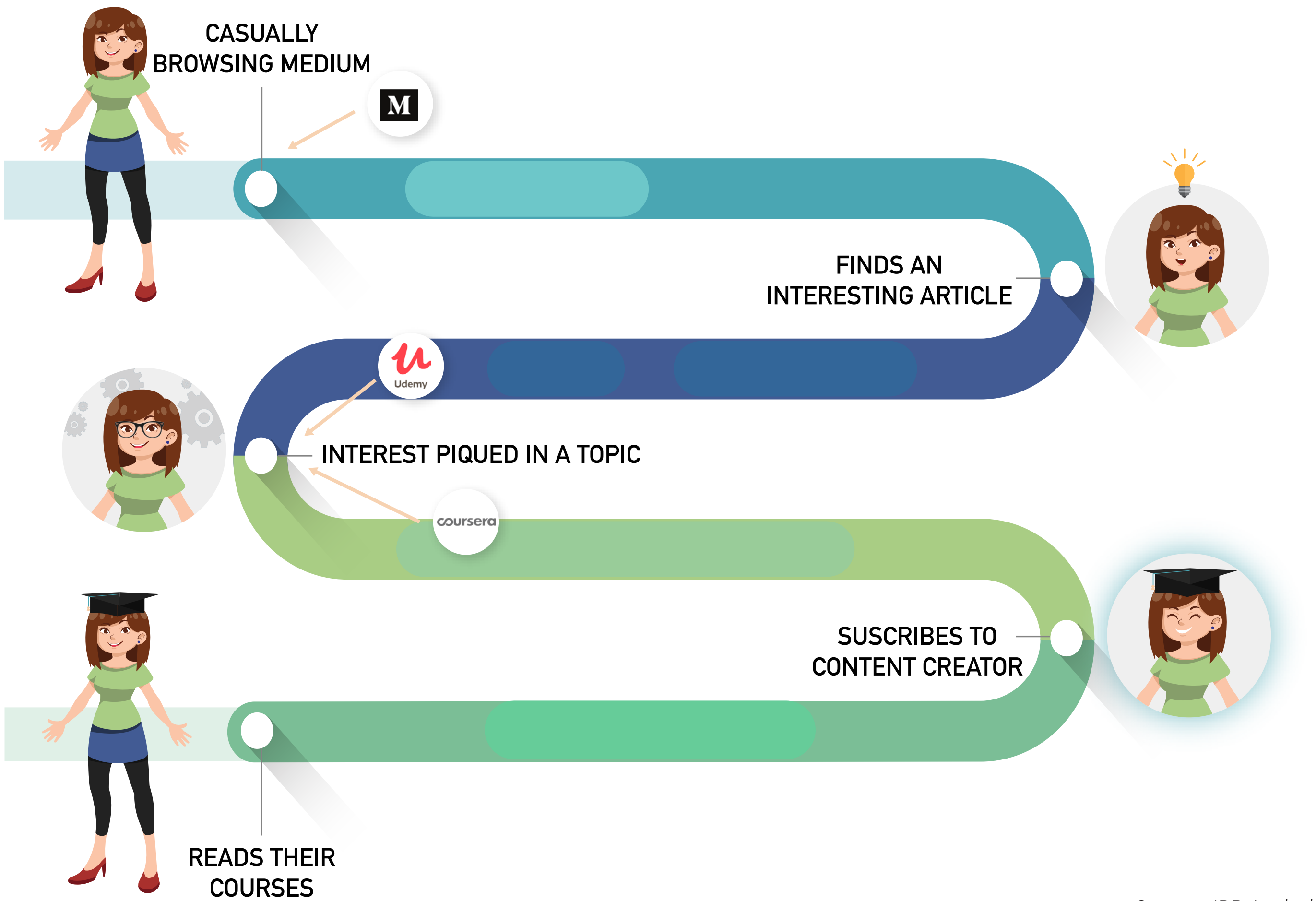
The online learning industry is expected to grow at an annualized rate of 7.2 per cent, reaching $325 billion by 2025. In the last three years, over 25 million people across the world have enrolled in Massive Open Online Courses (MOOCs). Medium stands out from the crowd of MOOCs with its existing audience of engaged readers, the network of high-profile content creators, and its unique position as a centralized blogging platform for a wide variety of topics. For example, a reader with no prior knowledge of deep learning may have their interest piqued by a content creator's success story of integrating deep learning into their business. That same page would have links to courses that are relevant to understanding what deep learning is and would be written by the same content creator. Casual browsing would lead the reader into an integrated learning environment: the reader would be able to access quality course content discussing deep learning and learn from the same content creator that initially piqued their interest. This provides Medium a significant advantage as they can control the readers' experience from their initial interest in the topic until their decision to further their interest by pursuing a course. Traditional educational platforms like Coursera or Udemy only engage potential customers after they have decided to take a course. With Medium, readers would subscribe to content creators instead of courses, providing a richer experience and a higher-quality learning experience.

Activation barriers identified by consumers who are interested in online courses include the perception that the course may be too advanced for them. While Coursera and Udemy have brand-name universities and professors to draw in their audience, the level of concentration and commitment required to keep up with the material can also intimidate readers who are approaching new subjects. Thus, competitors that provide a very formal learning platform often struggle with user engagement. Only four per cent of Coursera users who watch at least one course lecture actually complete the course and receive a credential. In contrast, Medium is known for its extremely simple and intuitive reader experience and website design, which would help facilitate a stress-free and informal learning environment. It is important to attract content creators who are editors of popular publications or have thousands of followers across several social media platforms, since the status builds social credibility. This is especially applicable in teaching topics that rely heavily on hands-on or personal experience, such as starting your own business or being an effective leader.

Implementation and Challenges

In contrast to competitors that charge users per course, Medium should implement a pricing model that fits its value proposition. On Medium, content creators build reputations and readers discover knowledge through following them; as such, Medium will charge readers subscription fees to specific content creators, which will capitalize on the relationships between readers and creators. Moreover, content creators will be free to determine their own prices according to Medium's guidelines based on quantity, complexity, and uniqueness.

MEDIUM'S NEW CUSTOMER JOURNEY



Source: IBR Analysis

One important concern is quality control regarding courses. By providing specific high-profile content creators with "verified badges" and forming an in-house team to manage content creator relations, Medium can ensure that all content is legitimate. In addition, feedback and recommendations from the active community will mitigate quality concerns and provide natural improvements as more courses are offered on the platform.

Profitability

The proposed model can only be successful if it can generate enough contribution to cover the annual $50 million that Medium receives in VC funding, taken as a proxy for cash burn. Assuming growth in total Medium users is 30 per cent, and two per cent of the expected number of Medium users become content creators, 1.6 million content creators are estimated to be making courses for their subscriber base one year after implementation. If these content creators charge readers an average of $5 a month with Medium taking 45 per cent, it can be expected that Medium will be able to generate positive net income by 2018. Comparatively, Udemy offers a 50-per-cent share to most of its content creators. The revenue that each content creator receives will incentivize them to continue to create unique, quality content for their subscriber base. Content creators have a number of platform tools, including quizzes, podcasts, and discussion forums, which they can use to convey their content.

Conclusion

By positioning itself as a platform to share passions and offer distinctive value behind a paywall with courses, Medium can continue to build its engaged reader base and incentivize writers, ultimately ensuring it evolves into a mature and self-sufficient company. After all, everyone is looking for a place to share their passions online—what it comes down to is finding the medium.

AMAZON & WHOLE FOODS: THE EVERYTHING STORE FOR EVERYONE

To win the war for retail, Amazon must use Whole Foods to pursue a more aggressive customer acquisition strategy

Emil Stanca

Illustration by: Matthew Tai

The War for Retail

With a 44-per-cent share of the online U.S. retail market in 2017, Amazon's goal to take over the global retail industry has come closer to fruition. In a landmark $13.7 billion deal in August 2017, the e-commerce giant acquired Whole Foods, the pioneer of the organic foods market. Through this acquisition, Amazon gained an opportunity to expand into brick-and-mortar and grow its online grocery delivery platform. The company has since focused its efforts on integrating Whole Foods into its Prime ecosystem through initiatives like building Amazon Lockers in stores and providing Whole Foods discounts for members with the Amazon Prime Rewards Visa. Many of the tactical changes Whole Foods has made since the acquisition are focused on cross-selling products—integrating the Amazon Prime and Whole Foods customer experience. However, as competitors like Walmart continue to build their own omnichannel capabilities to compete for the retail mass market, it is becoming increasingly vital for Amazon to embrace an active customer acquisition strategy instead. To stay dominant, the company must shift its strategy to target those who are neither within the Amazon Prime nor the Whole Foods network—only then can the strong cross-selling initiatives between the two have a truly significant impact.

Amazon: Retail Giant

Since its conception, Amazon's goal has been to dominate the retail world. To accomplish this, it has focused on quickly acquiring customers to capture market share—even if this meant sacrificing profits. Through its Prime membership, it has developed a powerful loyalty program that aims to serve a wide range of consumer needs and retain shoppers across its growing product ecosystem. By 2016, Prime members comprised over half of the retailer's online customer base. With its strong foundation in online retail, Amazon is now looking to fuel its future growth through new channels, as shown by the Whole Foods acquisition. The grocery industry is a particularly attractive new market for Amazon's loyalty-driven strategy, as grocery shopping is one of the most regular and predictable retail behaviours. This creates a recurring customer touchpoint that gives frequent opportunities to build strong and long-lasting relationships.

However, the current strategy to integrate Whole Foods into Amazon's umbrella does not reflect Amazon's overall mission. By implementing initiatives that primarily drive value for existing Whole Foods shoppers and Prime members, Amazon is missing an opportunity to expand its customer base. To truly achieve CEO Jeff Bezos' vision of becoming the world's "everything store," Amazon should look to create value for customers outside of its existing ecosystem.

Rising Competitive Pressure

Although Amazon has traditionally led the online retail industry with low prices and high customer volume, it is facing increasing competitive pressure from traditional brick-and-mortar stores moving into the online space.

Walmart is aggressively challenging Amazon's leadership position in retail by slashing prices and investing in e-commerce infrastructure. The company has recently cut its prices to compete with Amazon, matching its online price on 67 per cent of grocery products. While Amazon is still the industry price leader, Walmart is clearly focusing on grocery as a key area in which it can close the gap. Currently, Walmart leads the food and beverages industry with 17-per-cent market share, while Whole Foods holds only 1.7 per cent, and Amazon a mere 0.8 per cent.

In addition to competing with Amazon on price, Walmart is encroaching on its hold of the e-commerce industry. The brick-and-mortar giant currently offers free two-day delivery of qualified items. Furthermore, it is expanding its grocery pickup and delivery services to better match Amazon's offerings. In 2,100 stores across the U.S., shoppers can place Walmart orders online and pick them up without ever leaving their car. Walmart is further expanding its delivery capabilities by partnering with Instacart to give consumers access to inexpensive groceries without paying membership fees.

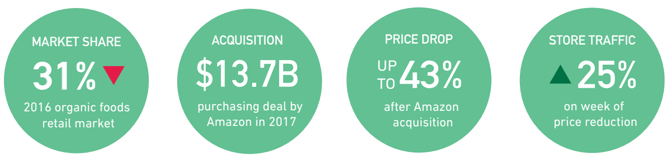
Walmart is not just threatening Amazon's hold over the industry, but also Whole Foods' ability to compete in the evolving grocery space. Whole Foods was a pioneer of the retail organic foods market, selling products that were expensive but claimed to be healthier and more natural. However, organic food has become more accessible with increased competition driving down prices. Mass grocery retailers like Walmart are now able to sell organic foods inexpensively given a leaner cost structure and benefits from economies of scale. This introduces a significant threat to Whole Foods by replicating its core value proposition at lower cost. In 2016, despite the industry growing by 16 per cent, Whole Foods' share of the market fell by 31 per cent.

With such fierce competition, Amazon cannot afford to simply extract more value from its current customers. Instead, the company must find new ways to grow its customer base if it hopes to lead both the online and brick-and-mortar retail industry.

Recommendation

To succeed in attracting new customers, Amazon should launch a two-phase action plan: sell private label products in Whole Foods to reduce its cost structure and develop a mobile recipe-sharing platform to drive omnichannel acquisition. With these initiatives, Amazon can fulfill its customer acquisition gap in the grocery market and aggressively grow to overcome mounting competitive threats.

KEY FIGURES FOR WHOLE FOODS MARKET



Source: Bloomberg, CNBC

An Amazon of Private Label Products

Whole Foods must become more accessible to the middle class if it hopes to encourage customers to switch from competitors like Walmart. At the expense of Whole Foods' profit margins, on its first day of ownership, Amazon slashed Whole Foods' prices by as much as 43 per cent to drive customer acquisition. The strategy was effective in increasing same-store traffic by 25 per cent that week, demonstrating that reducing prices has an immediate and meaningful effect on converting new customers from its mass market competitors. Nearly 25 per cent of these new customers came from Walmart, 16 per cent came from Kroger, and 15 per cent came from Costco. While Whole Foods' price cut was a step in the right direction, its products are still priced significantly above Walmart's price point. This move will ultimately be unsustainable because the underlying cost structure has not changed.

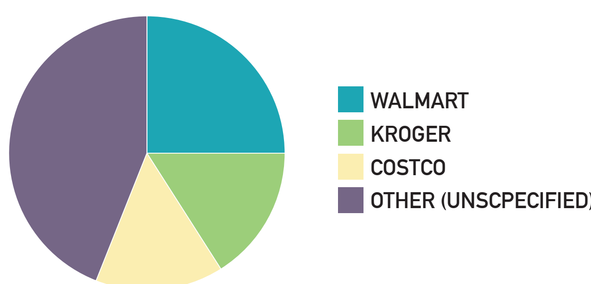
To make its lower prices more sustainable, Whole Foods should reduce its cost structure by exclusively selling Whole Foods-branded products in-store. These products will carry a strong brand association while being less expensive to produce. Unlike most grocery stores who rely on top-selling branded products like Tropicana orange juice to draw customers, it is Whole Foods' brand, rather than the brands of products it carries, that draws customers to stores. Because of the strength of its existing reputation, anything under the Whole Foods umbrella will be immediately associated with and positioned as premium, natural, organic, and healthy.

Whole Foods private label products will yield higher margins as Amazon will deal directly with suppliers, forgoing any markups paid to intermediary brands and distributors. Already, much of Whole Foods' fresh food is private label. Its produce, prepared food, and fresh pressed juices currently all operate under the Whole Foods name. Therefore, to transform its store to carry entirely private label products, it must proceed to brand items with longer shelf lives, like pasta sauce or cereal. Because Whole Foods already operates a private label for most fresh food, only items with longer shelf-lives will require a new distribution system. As such, the implementation of the proposed strategy is made easier because Whole Foods will not require a cold chain.

Amazon also has a unique advantage in developing private label products, due to the large pool of data it collects through its online retail channel. It can use customer response data to determine which product and features are most well-received, and curate goods accordingly under its own brands. Amazon has significant expertise in this space, which extends to food items. For instance, its private label baby food has been praised for its taste, which would have been difficult to develop without a deep understanding of the product acquired through aggregate data analysis.

Reducing its cost structure by exclusively selling private label goods will enable Whole Foods to sustainably keep prices low. The strategy will drive sales volume without sacrificing existing margins, appealing to grocery shoppers' primary concern: high-quality food at affordable prices. However, although keeping prices low and building private brand equity will reduce the barriers for customers to switch, grocery shopping is habitual and consumers may be reluctant to change their behaviours without a significant catalyst. Therefore, Amazon should also look to create this incentive by building its omnichannel capabilities to provide a more integrated service offering to attract new customers.

CUSTOMER TAKEOVER BREAKDOWN



Source: CBS News, Thasos Group

Omnichannel: Convenience and integration

An omnichannel strategy that provides a seamless shopping experience across e-commerce and brick-and-mortar, if well-executed, could be highly effective in driving customer growth. This approach increases shopping accessibility by meeting customers on all channels and providing an integrated customer experience. A study conducted of 46,000 customers has found that over 73 per cent of Americans prefer to engage in a combination of brick-and-mortar and digital shopping. Omnichannel shoppers are also more profitable, as they tend to spend four per cent more in store and 10 per cent more online compared to traditional shoppers. Finally, omnichannel shoppers log 23 per cent more repeat shopping trips to stores and are more likely to recommend the experience to others.

Although Amazon has been effectively using omnichannel strategies to cross-sell Whole Foods and Prime customers, there is a significant opportunity to employ an omnichannel approach for customer acquisition as well. 77 per cent of consumers are estimated to use digital touchpoints like online recipes and blogs to drive brand awareness and find inspiration for their grocery shopping. These shoppers highly value convenience, curation, and integration in their grocery experience. Amazon must employ methods that provide these qualities to break habitual buying patterns.

For example, Whole Foods can create and curate an online platform for recipe-sharing, where customers can build recipes using Whole Foods products. These recipes can be made available through a mobile application that encourages shoppers to purchase ingredients at their closest Whole Foods. At the store, the application will help shoppers navigate through the store's layout to pick up their ingredients, creating a frictionless and digitally integrated in-store experience. Amazon has already demonstrated its digital integration capabilities, as seen through its ongoing development of technological applications in Amazon Go stores. Customers who use the recipe-sharing service will then be offered a bundling discount on their order, which is made financially feasible by Whole Foods' store-wide conversion to private label brands.

This initiative makes the shopping experience actively engaging and will break consumers out of their existing grocery routines. Store credit can be awarded for posting popular recipes on the platform, establishing a sustainable community-driven content creation mechanism that produces recipes at a faster pace than Whole Foods' current digital recipe book.

Recipe visits and purchase logs will be recorded for each customer profile, which Amazon can subsequently use to provide rich, personalized recommendations. This allows Amazon, with its strong loyalty program and data analytics capabilities, to create a point of differentiation for the Whole Foods shopping experience that makes it difficult for other competitors to effectively imitate. It can also enable Amazon's existing omnichannel infrastructure to create Prime membership conversions. For instance, Amazon can offer to deliver ingredient bundles directly, thus providing a further opportunity to add physical grocery shoppers to its online ecosystem. From a logistics perspective, aggregate data collected on recipe popularity by location can also allow Amazon to successfully project and manage inventory needs, reducing operational challenges and stocking issues.

By shifting its focus to initiatives like the recipe-sharing program that aim to provide convenience, curation, and integration, Amazon can bolster its omnichannel strategy to better serve a customer acquisition role.

WHOLE FOODS OMNICHANNEL STRATEGY

Amazon on the Go

Amazon must broaden its customer base and then integrate those customers across its ecosystem. By becoming more financially accessible, Whole Foods will be able to attract new customers through reaching out with its omnichannel strategy. With the war for retail becoming more intense than ever, competitors such as Walmart are no longer treating e-commerce and brick-and-mortar as mutually exclusive channels. Amazon has the opportunity to use Whole Foods to spread its roots in the brick-and-mortar grocery world, bringing more customers into its ecosystem and expanding its influence over the collective retail market.

ETSY: **DEFINING THE FUTURE OF WHOLESALE**

In the face of slowing growth, Etsy should look to digitize the B2B purchasing experience

Amy Wang and Edwina Liu

Illustration by: Selina Li

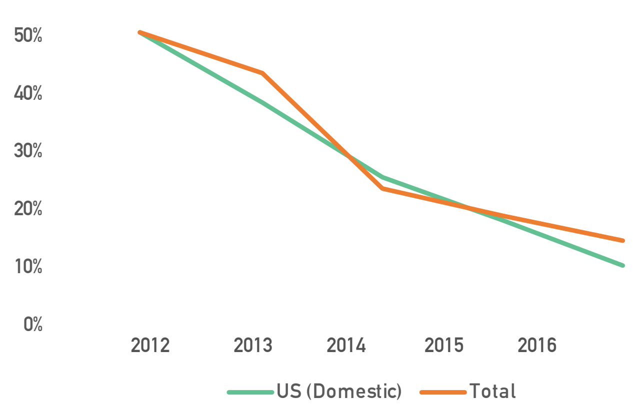
Founded in 2005, Etsy is an e-commerce marketplace for unique, handmade consumer goods such as jewellery and furniture. In the past year, the company achieved a 21-per-cent increase in revenue, its first year of positive net income, and a management change. However, a closer look at Etsy's performance reveals an alarming stagnation in its U.S. segment, potentially indicating market saturation. While international expansion and cost discipline are driving recent improvements in revenue and profit, the niche nature of Etsy's market will limit business-to-consumer (B2C) and business-to-business (B2B) growth around the world. Etsy has an opportunity to use its competitive advantage developed in the B2C space and expand its focus in the B2B space as a wholesale agent.

Slowing Growth in America

The key symptom of Etsy's limiting niche market is slowing growth in gross merchandise volume (GMV), the dollar value of items sold on the platform. In the U.S., Etsy's GMV growth rates have declined to 10 per cent in 2017 from 51 per cent in 2013, which is concerning given U.S. retail e-commerce growth of 16 per cent during the same time period. Comparatively, Shopify, also a provider of e-commerce services to a customer base of independent entrepreneurs, grew GMV by 71 per cent in 2017.

Etsy has frequently stated that GMV is its most important metric as it measures the health of the two-sided marketplace and drives a feedback loop: growth in GMV attracts more sellers, which leads to more revenue. This is because GMV is a leading indicator of Marketplace Fees and Seller Services, which respectively comprise 40.7 per cent and 58.6 per cent of revenues. Marketplace Fees primarily consist of the 3.5-per-cent fees sellers pay on completed orders, while Seller Services are additional tools that help sellers start, manage, and scale their businesses.

DECLINING GMV GROWTH



Source: Company Filings

Pinpointing the Problem in Improving GMV

To improve GMV, Etsy can increase orders through two methods: attracting more first-time visitors and browsers or increasing the annual purchase value of existing buyers. The former is unlikely as Etsy already has significant consumer awareness. Encouraging browsers to make purchases on Etsy—a key initiative in the past year—has produced lacklustre results. Algorithmic improvements have been introduced to provide more personalized results and suggestions. However, Etsy's bounce rate—the percentage of visitors who leave the site after viewing only one page—remains high at 41 per cent. It sits at only 200 basis points of improvement from last year and is higher than competitors', including Amazon's 36-per-cent bounce rate.

To increase the purchase value and retention of buyers, Etsy's 2017 marketing focus was to shift the perception of the marketplace to a "go-to shopping destination for special purchase occasions". Technical improvements to recommendation and search capabilities also aimed to increase purchases by connecting users with products they desire. However, average spending per user still declined slightly to $97.5 from $99.4. Etsy's failed efforts to boost GMV indicate that its core product has significantly limited growth potential due to a niche addressable market.

B2B: Opportunities Outside of Marketplace

Etsy also offers its Wholesale platform, which provides current sellers the unique opportunity to scale by selling to retailers, specifically local boutiques. However, given the small size of the total addressable market, this platform contributes little to revenues and is incapable of significant expansion. Even if all clothing and accessory boutiques in the U.S. sourced all their products from Etsy, the resulting gain would roughly represent only eight per cent of Etsy's current revenue.

The scale that wholesale requires does not match with Etsy's seller base, as 77 per cent of vendors are businesses of one, and 97 per cent operate out of their homes. Furthermore, Etsy's *2017 U.S. Seller Census* revealed 60 per cent of Etsy sellers were reluctant to grow large enough to require hiring more help. As a result, these sellers are more likely to avoid participating in wholesale as it requires fulfilling bulk orders with rapid turnarounds. Lastly, many current sellers are ineligible for the program as they supply unique, handmade products, and thus cannot afford to provide a wholesale discount.

Measuring the Opportunity

Etsy's current B2B marketplace acts as a wholesale trade agent, serving as a middleman between sellers and retailers. Wholesale trade agents focus solely on providing sales services; they do not take ownership of goods nor are they involved with logistics. Etsy should focus on expanding its Wholesale platform and extend the scope of its wholesale sellers to small- and medium-sized vendors and the scope of its retailers to chains of stores larger than boutiques. Given the entire industry generated revenues of $758.7 billion in the U.S., the opportunity is significant enough for Etsy to meet its growth objectives while aligning with its mandate of empowering small business owners.

Value Proposition

For vendors, this platform would help simplify the selling process and provide exposure to large retailers. For retailers, working with Etsy would streamline the buying process while also providing a quality selection of products without the added headache of dealing with multiple suppliers.

The platform supports the new target vendors' growth ambitions as they would be enabled to scale quickly by working with mid-sized and large retailers. Traditionally, large retailers, such as Nordstrom and Indigo, have relied on established relationships with branded products to stock their shelves. These retailers have been unwilling to allocate significant resources to new vendor discovery because of the costs associated with onboarding. Typical small vendors are also unfamiliar with wholesaling and fulfillment and are thus, perceived as risky. While direct interaction with individual new vendors is unlikely, retail mammoths have partnered with wholesale agents that represent groups of small vendors.

Etsy Wholesale will also reduce vendors' costs by lowering the time sales representatives spend on attracting new customers, considering this site will be frequented by numerous retailers. In addition, it reduces upfront costs required to make contact with retailers. One trade show could cost thousands of dollars in travel expenses, booth costs, and marketing materials. Alongside these cost reductions, digitizing the process eliminates costly manual order entry errors.

For retailers, bringing the wholesale ordering process online also increases convenience. Previously, buyers relied on physical line sheets, or visits to individual wholesalers' websites to obtain product information. 93 per cent of B2B buyers are estimated to prefer purchasing online and 86 per cent would prefer using self-service tools for reordering, as opposed to talking with a sales representative. This platform also increases product variety by enabling retailers to work with numerous smaller vendors without the associated risks. It currently takes large retailers six to eight months to onboard a new vendor, but this could be significantly streamlined as Etsy Wholesale would have already verified the vendor's capabilities. Finally, purchase data allows retailers to generate unique insights by looking at past trends, analyzing the performance of their inventory, and comparing the product assortment across different store locations.

RETAIL AND VENDOR JOURNEY

Target Market for B2B Wholesale

Initially, Etsy Wholesale should connect vendors to medium-sized retailers operating 30 stores or fewer as they source products from many small vendors. In contrast to large retailers who are sought out by new vendors, can afford to attend many trade shows, and can even self-produce products, medium-sized retailers lack robust buying teams. Medium-sized retailers often have less stringent wholesale requirements, such as delivery windows and order volumes, granting the flexibility needed for initial ramp up.

The platform should initially focus on the furniture and home furnishing industries, since there are already sellers on the current wholesale platform who provide goods such as curtains, decorative accessories, and kitchenware. The base of vendors will make it easier to initially attract retailers. Furthermore, the furniture industry is highly fragmented as most operators are small, privately-run businesses, which aligns with the goal of targeting medium-sized retailers. While the home furnishing industry is more consolidated, there are numerous small and medium-sized players that satisfy local demand. The combined market size is significant at a total of $95 billion. Once Etsy has successfully entered these industries, it can expand into other adjacent markets, such as jewelry, entertainment, or beauty.

Cutting Out the Competition

A significant competitor is Alibaba, which connects retailers to third-party vendors and products, generally located in Asia. Alibaba's reputation for fraud, unreliability, and counterfeits prevents U.S. retailers from relying on the platform to source consumer-facing goods. Another potential competitor is Amazon. It currently offers a B2B platform for businesses to purchase products for consumption. To increase barriers against competitors, such as Amazon, Etsy needs to gain an advantage in reinforcing purchasing behaviour, increasing search cost, and raising switching costs. If it can translate its success in the do-it-yourself (DIY) market to adjacent markets, such as furniture and home furnishing, before other competitors, Etsy can continue to compete with Amazon. For barriers to be reinforced, Etsy needs to establish a network of vendors and retailers on its platform, which would make it inconvenient for companies to move to another platform.

Startups, including Joor and Handshake, have also begun to emerge in the digital wholesale industry. While none of these startups have reached substantial scale, many reputable brands and retailers have used Joor, including Kate Spade and Saks Fifth Avenue. The large number of partnerships these startups have established indicates a need for this service in the broader market. However, Etsy will not compete with Joor's strong reputation in the high fashion industry. Handshake is focused on providing a digital solution for vendors, but does not create a B2B marketplace for retailers.

Ironing Out the Details

To expand beyond its identity as a DIY platform, Etsy must begin by onboarding vendors and retailers at trade shows with a small salesforce. After a sufficient mass of vendors and retailers have joined Etsy's wholesale platform, network effects will guarantee a greater proportion of vendors and retailers will be self-serve. In effect, customer acquisition cost will be driven down to be more in line with Etsy's B2C business.

Etsy can leverage many of its B2C capabilities for this B2B opportunity, including counterfeit detection, product upload processes, and quality vetting. Though it can also use its B2C payment capabilities, Etsy must develop support for Electronic Data Interchange (EDI), as it is the standard billing method in wholesale. Value-added services like these, in addition to Etsy's seller agreement, will restrict disintermediation.

Monetization

The revenue model for the wholesale platform will be two-fold. First, vendors will be charged 3.5 per cent per sale, same as the B2C platform, since the value they derive are the additional sales made on the platform. Second, buyers will pay a subscription fee as they receive ongoing discovery of new products as well as tools to simplify the retail ordering process. Once scale is reached, seller and buyer services should be introduced. If Etsy matches its self-reported B2C penetration of two per cent in adjacent verticals in the B2B market (including furnishing, jewelry, toys, personal care, and craft supplies), revenue contribution will be more than 20 per cent of fiscal year 2017 revenues. This assumes a 3.5-per-cent fee on wholesale price—when compared to Amazon's take-rate of 12 per cent for Amazon Handmade, there is much more room for upside.

Nailing the Execution

Etsy currently offers a robust B2C marketplace platform and the technical infrastructure is in place to offer a B2B marketplace. More importantly, while there are competitors in the B2B wholesale industry, Etsy is well positioned to succeed because of its competitive advantage of brand trust. Despite all products being unbranded, users trust that items sold on Etsy are high-quality. This will extend to retailers who are looking for high-quality products that match the online presentation and reputation.

Conclusion

Etsy's growth potential is limited in established markets due to a small total addressable market and needs to expand to meet shareholders' growth expectations. By leveraging its strong brand trust and marketplace capabilities, Etsy can expand its focus into adjacent markets on the B2B e-commerce space.

DAVIDSTEA: **GROWING INTO READY-TO-DRINK**

With a harsh retail environment and declining same-store sales, DavidsTea needs to diversify and move into ready-to-drink products

Victor Bates and Dane D'Souza

Illustration by: Joey Yu

Steeped in Struggles

DavidsTea's stock has decreased in value by 87 per cent since its initial public offering in 2015. This significant drop in share value reflects a company which finds itself in a harsher environment than when it was founded in 2008 by David and Herschel Segal. In its early days, the Montreal-based tea retailer helped pioneer a consumer preference for specialty teas. Over the next nine years, DavidsTea would go on to open 236 stores across North America. However, since 2014, the company has been stuck with an unsustainable and unprofitable growth model—a reality that is still prevailing in 2018. To avoid further losses, DavidsTea must rethink how and what it sells.

DavidsTea currently derives the majority of its revenues from tea and tea accessory sales at its proprietary stores, which are located predominantly in malls. The company is heavily reliant on mall foot traffic, yet North American malls are gradually becoming obsolete due to movements from e-commerce giants such as Amazon. Large U.S. mall operators like Simon Property Group, General Growth Partners, and Taubman Centers experienced an average decline in foot traffic of approximately six per cent from 2016 to 2017, and this trend is expected to continue. Exacerbating the situation is the overall decline of the tea market. In Canada, the tea market has contracted by over six per cent over the last four years, with further declines projected. To combat the overall decrease in tea consumption, tea companies have been raising tea prices, with the average unit price for tea increasing by 1.2 per cent between 2016 and 2017.

Boiling Point

Faced with the reality of troubling external forces, DavidsTea might point to its past three-year average revenue growth of 21 per cent as a beacon of hope. However, closer inspection reveals that 2017's revenue growth of 5.9 per cent was solely driven by opening new stores. Furthermore, same-store sales growth at DavidsTea have dropped dramatically from 13 per cent to the current negative 4.5 per cent over the past four years. Ultimately, it seems that DavidsTea is only able to have its revenues appear healthy by unsustainably opening new stores in order to outpace the decline in mall traffic and demand for tea. DavidsTea is not the only company to experience these revenue challenges; U.S.-based Teavana, acquired by Starbucks in 2012, also offers premium and specialty teas. Unable to attract new customers and grow same-store sales, Starbucks recently disclosed plans to shut down all 379 proprietary Teavana retail locations. To thrive in a way Teavana never did, DavidsTea must rethink its core market and offerings, with the ultimate goal of achieving revenue diversification.

Fermenting Diversification

To achieve revenue diversification, DavidsTea must find a way to reach new customers in a growing market while still leveraging the company's core competencies. These aspects are embodied in the ready-to-drink (RTD) tea market, which had annual revenue growth of 4.8 per cent in 2017, partially fuelled by increased demand in the premium segment. The market size of RTD teas in the U.S. was $3.5 billion in 2016 alone, representing a significant opportunity for DavidsTea to diversify. Selling RTD products through new channels such as grocery and health stores will allow DavidsTea to shift its revenue model and access new customers who do not frequent the company's proprietary stores. Having developed a reputation for premium teas, DavidsTea must now leverage its proven name in the RTD market where it can capture a larger customer base.

"To thrive in a way Teavana never did, DavidsTea must rethink its core market and offerings, with the ultimate goal of achieving revenue diversification."

A key driver of growth in the premium RTD tea segment is a popular new beverage called kombucha. Much like tea, kombucha is an ancient Chinese beverage that comes in a wide array of flavours, made by fermenting sweet tea with a symbiotic culture of bacteria and yeast. When the beverage development is complete, kombucha is often sold in single bottles. The North American kombucha industry has grown at an exponential rate in recent years and is forecasted to continue growing at an average growth rate of 25.9 per cent per year until 2025. The most popular segment for kombucha purchases is in supermarkets, although the product is also commonly sold in health stores due its perceived health benefits. As the market has grown, consumers have been increasingly selecting products based on flavour and brand association. Although DavidsTea offers a single type of powdered Kombucha, it does not currently sell any bottled kombucha. DavidsTea also does not sell products outside of its proprietary stores, so distributing through third-party retailers provides the opportunity to diversify and hedge against external factors. As the first step in expanding its brand within the broader RTD market, DavidsTea should enter the kombucha space with its own bottled products.

Simple All Oolong

DavidsTea has a large tea portfolio, with many SKUs that could be fermented into kombucha for the development of product lines. However, the company has no experience in fermenting teas on a commercial scale, nor bottling and distributing beverage products to third-party retailers. Working with industrial processes that use biological agents requires companies to comply with strict government regulations, and there is little room for error. In light of these circumstances, DavidsTea should acquire a company that is able to provide the necessary expertise.

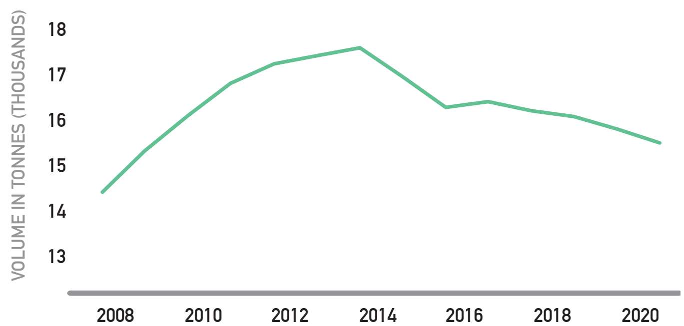
Acquisition Targets: The Right Matcha

There is no single company that DavidsTea could buy to achieve strong growth in North America. Instead, DavidsTea should consider acquiring a company in each country that has has a strong retail distribution system. In the U.S., there are hundreds of kombucha companies, but most of these companies are smaller local breweries. Using company sales of bottled kombucha to gauge distribution and manufacturing capacity, Asheville Kombucha Mamas, which sells kombucha under the name Buchi Kombucha, would be an ideal target. Headquartered in North Carolina, the company's eight years of past experience has led to revenues of over $6.6 million in 2017. In the Canadian market, one of the largest kombucha manufacturers is RISE Kombucha. Headquartered in Montreal, the same city as DavidsTea, RISE achieved approximately $10 million in sales. Using the price to revenue multiple from PepsiCo's 2016 acquisition of kombucha maker KeVita, it would cost DavidsTea approximately C$62 million to acquire RISE and Buchi. DavidsTea would likely have high interest rates on any debt they issue, and with C$37 million in cash on its balance sheet, the company should attempt a buyout partially through cash and partially through a share exchange.

DavidsTea can provide the target companies with support regarding scalability, distribution, and capacity to innovate. The former's large balance sheet enables it to provide both companies with the dry powder they need to scale quickly. In addition, with tea being the primary ingredient in the production of kombucha, DavidsTea's economies of scale would allow the kombucha companies to drive down overall production costs. Further economies of scale are driven by the combination of RISE and Buchi, which rely on many of the same inputs.

Beyond these size benefits, this combination would provide RISE and Buchi with a virtual monopoly within DavidsTea's 236 retail locations. The acquisitions will also provide these fledgeling names with the backing of a premium well-recognized brand in the form of DavidsTea, a powerful differentiator on Canadian retail shelves. Furthermore, the target companies will gain access to DavidsTea's plethora of innovative tea flavours.

CANADIAN TEA MARKET



Source: Company Filings

The fermentation process of Kombucha leads to a vinegar taste that is commonly masked by the addition of other tea. Approximately 68 per cent of Kombucha consumers favour flavoured drinks over the unflavoured sour taste. While many flavoured Kombucha teas are available, certain teas are much better suited for fermentation and as flavour additives that improve the taste profile. With its team of world-travelling tea connoisseurs, DavidsTea has developed an unparalleled selection of 150 types of proprietary loose-leaf tea and has created a premier flavour profile across its offerings. With the company's market-leading position in tea curation, DavidsTea is in a favourable position to develop Kombucha that balances bold flavour with the sweetness of carefully selected teas.

Davids vs Goliath

With the acquisition of a kombucha manufacturer, DavidsTea officially enters into the RTD beverage industry. At first glance, the competition within this market is daunting, with goliaths such as Unilever, Arizona Tea Beverages, and Nestle alone dominating 37.5 per cent of the industry. However, DavidsTea can flourish by continuing to target the affluent segment of customers. Underserved by larger market players, these consumers are already fleeing high-sugar soda products; per capita consumption in this market has decreased at an annualized 2.8 per cent from 2012 to 2017. Although companies like Unilever and PepsiCo are responding to this shift, DavidsTea already has a loyal consumer base and strong R&D capabilities it can capitalize on. With these strengths, DavidsTea has the unique opportunity of timing, entering the RTD market at a point where consumers desire more than what is available.

Despite acquiring two companies, DavidsTea would not be the biggest player in the kombucha market. GT's Living Foods line of kombucha is estimated to have captured 50 per cent of the current U.S. kombucha market. Second to GT is Pepsi-backed KeVita, with an estimated 10 per cent of the market. The remaining 40 per cent of the market remains unconsolidated, split into a large number of regional producers. Upon performing both acquisitions, DavidsTea would immediately start with two per cent of the market. Given DavidsTea's strong brand in Canada, existing network of stores, and market leading flavour selection, the company will supercharge kombucha growth, capturing new and existing customers alike.

New customer adoption will be driven by customers already familiar with DavidsTea who experience kombucha for the first time. DavidsTea can capture share from the other 40 per cent of the kombucha market with its best-in-class flavour profile and strong brand name. To reach a revenue contribution of 20 per cent within three years, implied growth rates are approximately 50 per cent. This compares to Kevita's trailing three-year revenue CAGR of approximately 75 per cent at the time of its acquisition.

"New customer adoption will be driven by customers already familiar with DavidsTea who experience kombucha for the first time. DavidsTea can capture share from the other 40 per cent of the kombucha market with its best-in-class flavour profile and strong brand name."

Keep on Growing

Ultimately, entering RTD tea would diversify DavidsTea's revenues in multiple ways. The product will be sold through new channels like premium grocery and health stores in addition to existing DavidsTea stores, attracting new types of customers. According to consumers, the most significant difference between RTD tea beverages and loose-leaf tea is convenience. The current DavidsTea customer commits time to the loose-leaf brewing experience. RTD kombucha, on the other hand, caters to health-conscious customers who favour convenience. Due to the differences in underlying buyer motivations and product placement, cannibalization in-stores is expected to be minimal.

Gross margin estimates from small kombucha manufacturers are expected to be around 80 per cent, which compares to DavidsTea's current gross margin of 50 per cent; any revenue cannibalization that does occur will increase DavidsTea's overall gross margin. Incremental fixed costs associated with manufacturing kombucha are minimal in comparison to existing expenses associated with brick and mortar. Most importantly, decreased mall foot traffic and tea consumption would not impact DavidsTea's RTD revenue stream distributed through non-DavidsTea locations. Instead, the new product line will increase overall margins and brand exposure which could convert convenience-oriented consumers to loose-leaf customers, positively impacting same-store sales. After only three years of pursuing the diversification strategy, kombucha sales would generate more than 20 per cent of DavidsTea's current sales.

Having helped reshape the loose-leaf tea industry in Canada, DavidsTea can expand its influence into the RTD space with kombucha as its first foray into the market. After conquering the kombucha space, DavidsTea will be ready-to-diversify into the broader RTD market to grow its brand into a household name across the world.

SHARKS VS BUILDERS: WINNING IN INDIA'S DISTRESSED CREDIT SPACE

With the advent of new opportunities, global credit investors should consider India's steel sector

Jim Zhou and Nameh Dhawan

Illustration by: Morgan Zhuo

In 2016, the Indian government passed *The Insolvency and Bankruptcy Code, 2016* (IBC): a landmark legislation that overhauled the procedures for recovery or liquidation and consolidated past bankruptcy laws into a single framework. With new provisions, such as time limits on the bankruptcy process and the creation of specialized insolvency professionals, this new legal framework has greatly minimized the costs, time, and resources involved in the bankruptcy process. It increases the likelihood that businesses leave the bankruptcy process as active and functioning companies instead of being sold off for parts, similar to the differences between a Chapter 11 "reorganization" and Chapter 7 "liquidation" bankruptcy in the United States. As a result of these changes to the legal code, the overall viability of turnaround investing has increased.

Another previous hurdle for foreign investors with respect to India has been foreign direct investment (FDI) restrictions. India has taken steps to enable the entry of foreign investors who bring specialized skill sets in turnaround, as well as industry-specific knowledge. These provisions permit financial sponsors and foreign investors to own 100 per cent of a company, and, as a result, allow sophisticated investors to enter the market and benefit from their capital and operational skill sets.

These changes have piqued the interest of long-term private capital. Given the early stage of this asset class, the playbook for investment sourcing and execution is being developed on the fly and needs to be structured to leverage both the unique capabilities of foreign investors and the Indian bankruptcy environment.

Investor Risks

Years of poor governance and an unconstructive business environment have led to an inhospitable investment climate in India. As a result, investors have often worried about their ability to recoup investments. Historically, a patchwork of legal precedents and piecemeal laws such as the *SARFAESI Act, 2002* were the primary means of creditor protection. These took a liquidation-first approach to recovery of debts owed.

The nature of litigation in India is even more concerning due to the backlog of judicial cases. It is estimated that a case with at least one appeal could take up to 10 years to effectively resolve. This is troubling as private equity (PE) investors often use the internal rate of return (IRR) as a metric to assess investment viability, and this variable is highly impacted by the time horizon of the investment. Here is where the IBC has made the largest strides, with mandated 180-day timeframes for case resolution that allow investors to better underwrite investments with an expectation of timely resolution.

Current Competitive Landscape

Asset Reconstruction Companies (ARCs) are in the business of buying non-performing assets (NPAs), which are loans that are unlikely to be paid, from financial institutions at a discount to book value. As the primary vehicle for NPA investments, ARCs serve the dual mandate of freeing up capital and management bandwidth for banks. The Reserve Bank of India (RBI) is responsible for approving ARC licenses. So far, distribution of these licenses has been limited, with only 24 ARCs as of November 30, 2017.

The five largest ARCs jointly account for an estimated 90 per cent of assets under management (AUM) in this space, demonstrating the concentration of capital in this space. Edelweiss ARC is the largest, managing around $6.4 billion as of June 2017 and controlling approximately 50 per cent of the industry's AUM. Despite attractive returns of 20 to 25 per cent, ARC sponsors have traditionally consisted of only domestic institutions. However, with the recent promise of regulatory changes, major foreign investors, such as Bain Capital and Apollo Global Management, have begun to enter the space alongside local partners.

There exist significant capital requirements surrounding ARCs, including a 50-per-cent upfront cash requirement, which will be increased to 90 per cent by April 1, 2018. To buy assets, ARC sponsors require deep pockets because of the divergence from the historical ability to issue security receipts, debt-equity instruments issued by the ARC to raise money for acquisitions. Additionally, NPAs are heavily concentrated in large corporations, with the 12 largest defaulters—collectively coined the "dirty dozen"—comprising an estimated 25 per cent of all NPAs. Similarly, banks expect a faster recovery, something only possible with industry expertise. Thus, foreign players who enter this space must be of significant size and retain expertise in relevant industries; this is achievable through a combination of attracting specialists from around the world and relying on local partners. These characteristics are typical of large global funds who would benefit the most from these recent changes.

Economic Analysis

Amongst Indian industries, the greatest concentration of NPAs can be found in the infrastructure and basic metal sectors, comprising 34.1 per cent and 14.4 per cent of total industry NPAs respectively.

Within the infrastructure industry, 19.6 per cent of outstanding loans are classified as NPAs. This is spread across a diverse array of sub-sectors including power, transport, and telecommunication. These NPAs pose the greatest risk to India's financial system, with the RBI estimating that all banking sector profits achieved in the financial year 2016 to 2017 could hypothetically be wiped out if 10 to 15 per cent of loans and receivables become NPAs. The power sub-sector poses the greatest risk, accounting for 50 per cent of infrastructure sector credit.

The primary cause of NPAs amongst power companies is due to surplus capacity of coal-fired thermal plants, which comprise 67 per cent of all power capacity in India. Plants are operating at approximately 60- to 65-per-cent capacity, and loans to this sector have contracted by 10.4 per cent year over year following a lack of investment. This decline is compounded by increasing interest in renewable energy. New wind and solar energy technologies are now 20-per-cent cheaper than the coal-fired average and are gaining popularity. As a result, opportunities for recovery in Indian power credit appears bleak at best.

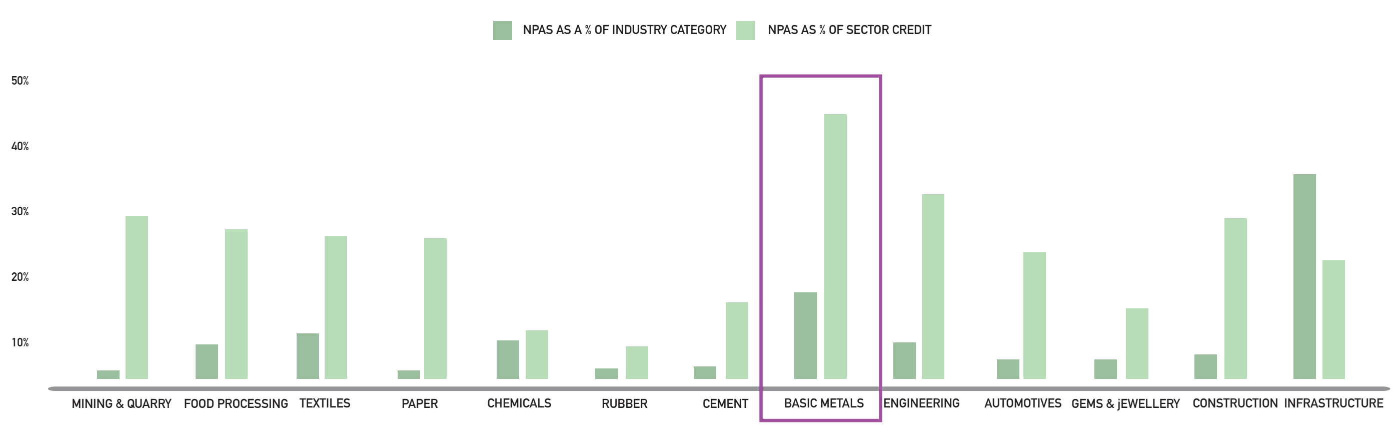
Given that the basic metals industry contains the next largest amount of NPAs and the opportunity for debt recovery given improving industry tailwinds, it is recommended that global PE investors consider investments in basic metals, specifically steel. The four largest distressed debtors are Essar Steel, Bhushan Steel, Monnet Ispat, and Electrosteel Steels, who collectively owe more than $26 billion. As many as 40 firms are under pressure from their creditors to sell assets under India's new bankruptcy code. This temporary financial distress coincides with surging demand for liquidation of collateral assets. Indian producers added leverage to fund expansion plans when the economy was growing at a much faster rate. However, a large portion of debt turned sour due to a slowdown in the Indian economy and a decrease in steel prices following over-supply from China. With steel prices rebounding from a 2015 low, demand beginning to pick up, and the Indian government being more supportive from a regulatory standpoint, it is reasonable to believe in bright prospects for the Indian steel sector.

Moving forward, this oversupply will cease to be an issue. The Chinese government's crackdown on wintertime particulate pollution in 2017 was extended to the nation's steel industry, forcing mills nationwide to shut down or curtail operations. These restrictions are estimated to have cut China's steel output by 10 per cent over the past five months and will extend to affect one-quarter of the nation's total steel-making capacity. On the domestic demand side, there are multiple drivers for long-term growth in domestic consumption. Prime Minister Narendra Modi's infrastructure plan is expected to be a core driver of consumption. In the near-term, spending on housing, educational institutes, hospitals, and government offices will gather pace leading up to the 2019 elections. Long-term projects, such as the Housing for All by 2022 movement, provides millions of slum residents with affordable housing, and the *Bharatmala* project, which includes the construction of 34,800 kilometres of roads in the first phase alone, will continue to drive sustained demand.

From a political perspective, Indian steel manufacturers will also be the beneficiaries of their government's increasingly protectionist stance on the steel industry. On May 3, 2017, the newly outlined *National Steel Policy* chartered a roadmap to increase the country's annual steel production to 300 million tonnes by 2030, a significant increase over 2017's figure of 101 million tonnes. A similar proposal enacted the same day approved a policy for providing preference to domestic steel for government infrastructure projects.

By targeting companies operating in the steel industry, investors will be able to take advantage of NPAs with a higher probability of converting to performing assets.

SECTOR NPAS AS % OF ALL INDUSTRIES



Source: Reserve Bank of India, Dec 2017

Coupled with a strong interest from various parties for steel operational assets, credit investors will likely recuperate a significant portion of their debt holdings.

Past Case Studies

While the state and private banks of India are actively involved as creditors in the largest bankruptcy proceedings in front of the National Company Law Tribunal (NCLT), small defaults are more work than they are worth for these institutions. Due to the complexity of multiple banks participating in deals, ARCs are optimally placed to aggregate debt and reduce how many parties have a say in the final resolution to increase NCLT proceeding efficiency. As banks hesitate to deal with debts that they believe will provide immaterial returns through liquidation, ARCs can acquire the rights to this debt at a favorable price and achieve attractive returns through the reconstruction of the company's assets.

In the case of Kamineni Steel & Power, the Hyderabad NCLT established that the IBC's overarching aim is resolution of corporate debt rather than forcing the sale of assets in a liquidation. Thus, any good-faith resolution plan can be passed with less than the 75-per-cent creditor vote requirement even if certain creditors are holding up the process. Other NCLT benches have stated that the 75-per-cent requirement is not flexible. In the case of Synergies-Dooray, a related party that held debt of the parent entity, the company assigned its debt to a creditor to push their collective vote above the 75 per cent.

Given the large set of assets—nearly $150 billion—that form this asset class and limited deployed capital at approximately $9 billion, investors can afford to be extremely selective and pass resolution plans favorable to the parent entity. Tactically, investors should mind these legal precedents and consider the precedents of the particular NCLT bench where the resolution plan is filed, identifying if it falls into the 75-per-cent camp or the positive-resolution camp. In the first, investors must seek to acquire sufficient debt to form 75 per cent of the creditor committee and force a resolution plan through. Alternatively, they must acquire a simple majority and demonstrate willingness to reconstruct the asset and not simply sell it off for parts. To limit downside risk—particularly given the greyness of this market—investors must avoid investing in firms with significant related-party transactions or relationships. The uncertainty around ownership rights could lead to the approval of a resolution plan to the detriment of the investors' returns.

Conclusion

This selectivity enables investors to increase their expected value of return and to begin pursuing the significant opportunities present in India's steel sector. Expected price increases and need for expanded capacity present an attractive end-industry for foreign credit investors. The positive prospects as well as large size of investable assets enables large investors to identify potentially high-quality assets amongst the large pool of overall assets.

If investors are skilled in distressed debt investing, aware of the legal structures surrounding Indian bankruptcy law, and are ready to commit capital, there are outsized returns awaiting the steely-eyed.

STEEL REBAR FUTURES PRICES

Source: Bloomberg

AM RESORTS: **SOLAR ENERGIZED VACATIONS**

To manage its fastest growing variable cost, AM Resorts should incorporate solar microgrids into their properties

Joseph Scarfone and Sam Postelnik

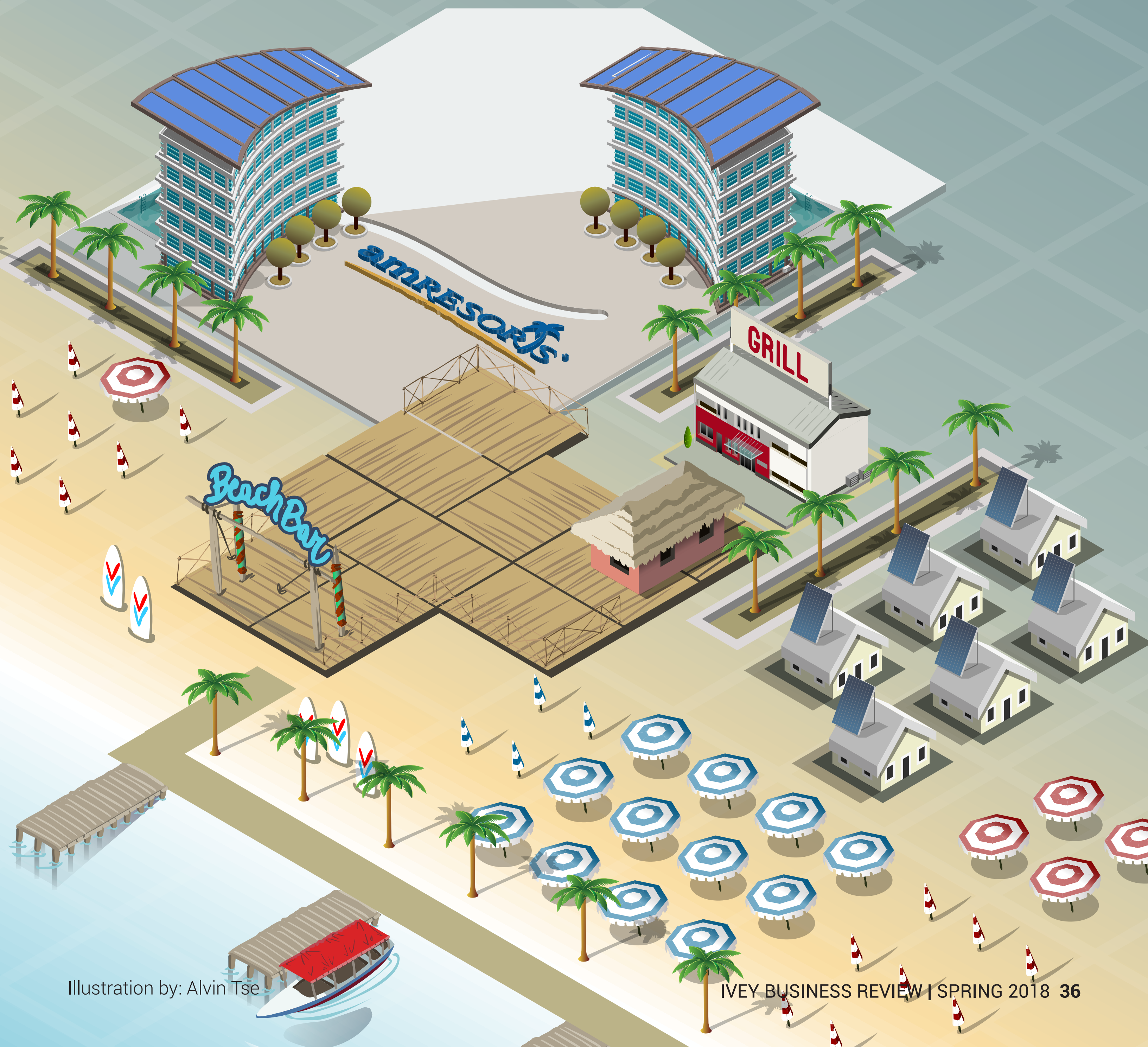


Illustration by: Alvin Tse

Cloudy Days Ahead

The hospitality and tourism industry in the Caribbean is in a period of unprecedented growth. In 2016, it increased at seven per cent, double the global average. Consequently, numerous competitors have entered the fray, diminishing profit margins in an already low-margin industry. As pressures increase from competition and as customers demand more attractive amenities, resorts will have to shift toward leaner cost structures. Utility expenses are cited as one of the three major challenges to this shift and to Caribbean tourism. AM Resorts is one of the largest and fastest growing resort chains in the region and is quickly expanding by building new properties. By incorporating solar panel installation into its construction, AM Resorts will benefit from a long-term cost advantage relative to its competition.

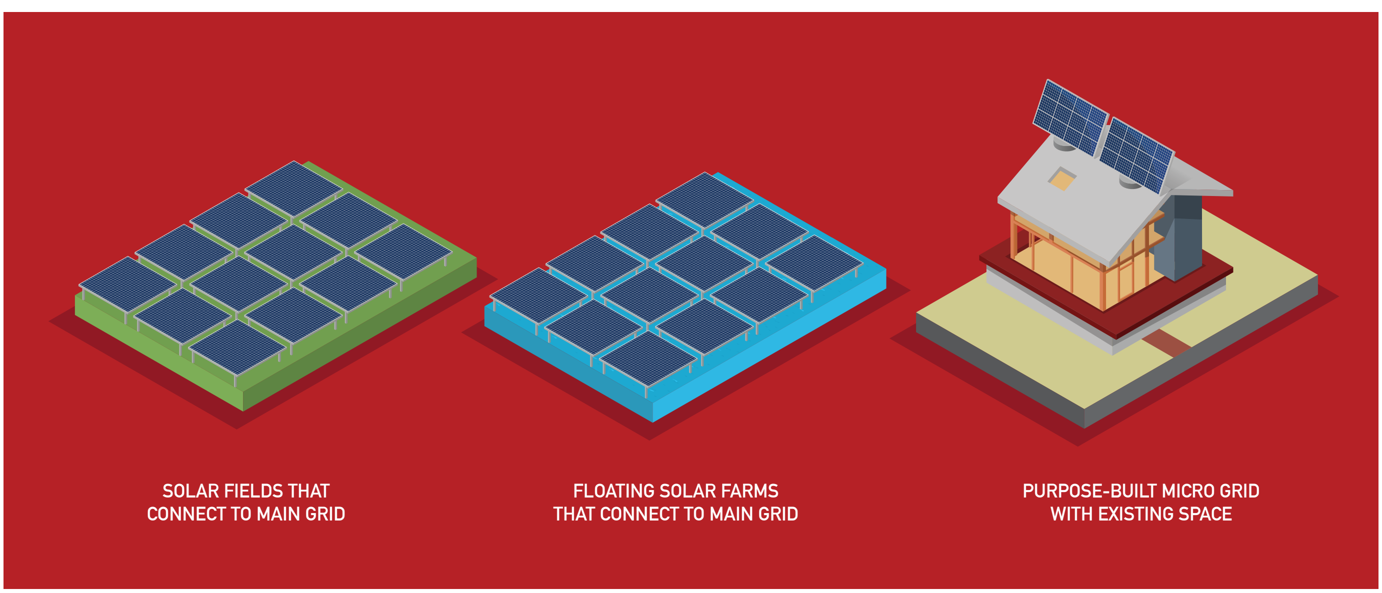
The Environment

The maturation of the global resorts industry has resulted in investors shifting their investments from fast-growth businesses to incumbent industry giants that optimize the performance of existing assets. Utilities normally account for a relatively small amount of operating expenses of hotels globally; however, this is reversed in the Caribbean region where energy costs are the highest in the world. In comparison to the U.S. average of six per cent, resort utilities in the Caribbean account for 15.6 per cent of total operating costs, on average. The high cost is becoming problematic as energy demands continue to increase. As the trend continues to favour Caribbean resorts with energy-intensive offerings such as universal air conditioning, the need for a sustainable energy solution becomes more evident.

The Caribbean appears to be the ideal location for renewable energy development due to an abundance of renewable resources such as solar, wind, and geothermal. Despite this, Cuba, the largest country in the region, only generates four per cent of its total energy from renewable sources. Consequently, nations in the Caribbean rely almost entirely on imported and expensive fossil fuels, resulting in the region paying some of the highest energy costs in the world. The International Monetary Fund (IMF) theorizes that renewable energy has not been adopted on a wide scale in the region due to lack of financing, political corruption, and unique geographical constraints such as limited land size and hurricanes. In addition, fossil fuel costs are only expected to increase while energy generation costs for renewable energies are expected to decrease.

On the contrary, solar energy has garnered a significant amount of investment and research, and still has ample room for innovation. Given the exponential decrease in solar energy production costs, it appears to be an ideal time to adopt solar panels as these lower prices result in a faster investment payback. In 2017 alone, prices dropped 26 per cent. Further, Swanson's law observes that the cost of generating energy with solar panels is decreasing at a rate of 20 per cent with each doubling of global manufacturing capacity. For example, in 1977, the cost per watt of power to purchase a solar panel was more than $76, while in 2013, it was a mere 74 cents. This indicates that in sunny regions like the Caribbean, solar panel technology could compete with more expensive and traditional methods of energy generation. Moreover, technological developments that have been proved in theory or in the laboratory, but have not reached mainstream adoption, indicate that solar-

ALTERNATIVES IN SOLAR ENERGY ADOPTION



generated power will continue to decrease in price while production efficiency increases. However, solar energy generation is dependent on the sun and is thus unable to generate consistent electricity. Consequently, batteries must be installed to store energy for use during the night and energy reserves may need to be supplemented by the main power grid during unfavourable weather conditions. If these conditions are met, solar energy becomes a promising solution to the region's energy woes.

While this plan is reasonable in theory, it prompts the question: what is the best way for companies to develop the infrastructure for solar panels? One option is to purchase large swaths of land and build grids of solar panels to create energy. While this method has the advantage of capturing economies of scale, this is not a viable option in the Caribbean due to the scarcity of land. Another option is to build floating solar farms in the ocean as is being done in some countries, such as China. This option, however, requires significant economic and political cooperation from governments since jurisdiction over the ocean water is usually reserved for large and well-established energy companies. The last option is to build the solar panels on a company's existing property, by either incorporating them into the design of new construction projects or retrofitting existing ones. The latter is not a feasible option since resorts would have to cease operations on existing properties to accommodate construction. The only off-season for resorts in the region occurs from July to November, mainly due to climate risks, such as tornadoes or hurricanes, which preclude the development of massive projects. Thus, it only makes sense that companies incorporate solar panel designs into the construction of new resorts.

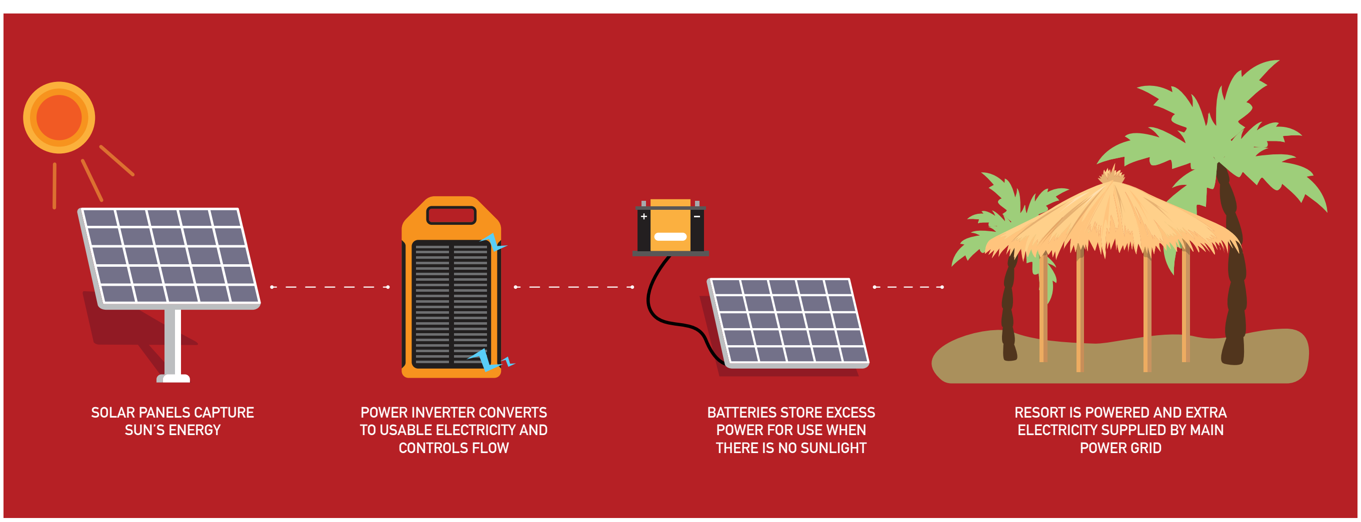
Resorting to a Different Strategy

As one of the fastest-growing luxury resort destinations in the Caribbean, AM Resorts is well-positioned to implement this strategy and install solar panels into its properties currently under development. Owned by Kohlberg Kravis Roberts & Co (KKR), a large U.S. private equity firm, AM Resorts has 20 new locations in its pipeline to be introduced by 2020. By integrating renewable energy into the construction of these new resorts, AM Resorts will be able to offset the growing energy costs for years to come.

The greatest benefit of this venture for AM Resorts is the ability to create a long-term cost-saving advantage relative to its competitors. Countries in the Caribbean pay some of the highest utility costs in the world and such costs are expected to only increase as fossil fuels become more expensive. Generating energy from solar systems, however, is only getting less expensive. If Swanson's law continues to hold and efficiency in panels continue to grow, the cost per kilowatt-hour for solar panels, excluding labour and other related installation costs, is expected to decrease to four cents by 2030 from nine cents today. Thus, designing all new resorts with solar panel infrastructure can provide a massive opportunity for AM Resorts to build a competitive cost advantage, even at today's prices. As new systems are installed going forward, the efficiencies are only expected to increase.

One major opportunity for AM lies with its financial sponsor. In 2015, KKR acquired an 80-per-cent stake in Gestamp Solar, a solar panel manufacturing company with experience manufacturing and installing solar panels in Mexico. KKR will be able to benefit from employing the technical expertise of its solar panel portfolio company to install solar panels on its resorts. Furthermore, by contracting Gestamp Solar for the installation of solar

MICROGRID SYSTEMS



panels on new resorts, KKR will be able to drive revenues in another portfolio company while making this investment.

AM Resorts already makes corporate social responsibility a part of its strategy, pairing resorts with rainforest protection. Solar panels will take this strategy one step forward. With climate change exacerbating weather conditions in the region, AM Resorts' adoption of solar energy will mark a symbolic start to combating climate change, which will be well-received by the public. This can be used to improve its brand in marketing campaigns targeted towards travellers. Multiple studies indicate consumers are willing to pay a premium price—upwards of 15 per cent—for sustainable hotels that use green energy. Therefore, pursuing this strategy will not only help in cost leadership by lowering operational costs, but also aid in a differentiation strategy.

Daylight Savings

Understanding the financial feasibility of the project requires a comparison of the costs that could be saved to the invested capital required. Under this scenario, the millions of kilowatt-hours of energy new resorts would use and source at more expensive rates, would be entirely generated from the grid of solar panels. The model is driven by each resort's savings in electricity costs being 33 cents per kilowatt-hour. Installation costs are estimated at a cost of just less than $4 per watt of power, totalling $3.6 million. This includes the cost of labour and construction of supporting infrastructure, such as a power inverter to convert the direct current output to alternating current. Consequently, the investment in solar panels is expected to yield a 15-per-cent rate of return, with a payback period of a little more than six years, significantly below the 25-year useful life of the asset. This is the base case and assumes no change in energy consumption or installation costs throughout the years. As these costs continue to decrease going forward, the attractiveness of this proposal will only grow by the time AM Resorts is ready to install solar panels.

Concerns

In addition, volatile weather conditions in the Caribbean such as wind storms and hurricanes present an opportunity to resorts generating their own power. Following Hurricanes Nate, Maria, Irma, and Harvey at the end of 2017, the U.S. Department of Energy released recommendations for improving the performance and resilience of power grids in Puerto Rico and the wider region. One of its key recommendations is to introduce a system of microgrids and supplementary energy sources to the main grid. Microgrids are small-scale power distribution networks capable of operating independently or in conjunction with the main power grid. As power outages create significant operational complications, avoiding outages through microgrids could be a unique option for AM Resorts.

Finally, KKR, AM Resorts' financial sponsor, has an average holding period of 6½ years. Although the payback for the installation of solar panels may discourage the implementation of this strategy, it is worth noting that the installation of solar panels would result in margin expansion for the foreseeable future, something that would be recognized upon exit of the investment.

Sunny Days Ahead

Increased global competition in the resort sector will continue to place downward pressure on profit margins into the future, forcing major industry players to minimize costs. Drivers of competitive advantage are evolving, and AM Resorts will be able to lead the sustainable practices movement by using solar panels. This will ensure long-term financial viability while also considering environmental and corporate goals. As the technology continues to evolve, solar energy is expected to become the mainstream standard for energy production.

HAPAG-LLOYD: **GETTING A SECOND WIND**

Hapag-Lloyd needs to look away from merger and acquisitions and adopt Flettner rotor technology to drive future efficiencies

Shubham Aswal and Raiyan Khair

Illustration by: Morgan Zhuo

Sinking Expectations

At first glance, one might assume the global container shipping industry would be thriving due to rapid globalization over the past decade and the recent decline in the price of oil. However, over the past 10 years, this industry has been plagued with unattractive cost structures and unprofitability. Several factors have contributed to this dismal outlook: weak demand, intense competition, and an industry-wide overcapacity problem.

Hapag-Lloyd, the fifth largest industry player in terms of capacity, feels these effects acutely. The company's 2016 revenues totaled €7.7 billion, yet the company failed to turn a profit in four of the last five years. For Hapag-Lloyd to achieve long-term profitability in light of the industry-wide issues, the company needs to recognize how it can improve its cost structure and outcompete its rivals.

Red Sky at Morning

Companies in a commoditized industry can do little to shelter themselves from the effects of the economy; they must try to mitigate economic downturns while fully capitalizing upon growth periods. In the container shipping industry, the cyclical nature of global trade results in fluctuating demand and freight rates. With low differentiation amongst competitors in a commoditized industry, Hapag-Lloyd is in a challenging position.

Increasing international division of labor and productivity gains within the industry allowed the container trade to grow at an average rate of 8.2 per cent between 1990 and 2010. The attractiveness of the market influenced the leading players to increase their ship sizes and capacity to take advantage of economies of scale, effectively reducing unit costs and solidifying their market dominance. The trend initially started with Maersk, which began placing orders for 'ultra-large' container ships—those with capacity greater than 15,000 twenty-foot equivalent unit (TEU), a measure of shipping capacity. The industry followed with the expectation that the global container trade would continue experiencing double-digit growth. However, the 2008 recession struck unexpectedly, causing trade to fall and leaving companies with significant overcapacity. Given the excess capacity and commoditized nature of the industry, shipping rates tumbled and the Shanghai Containerized Freight Index, a measure of relative cost of container shipping, plummeted from a high of 1,500 in 2012 to 772 in 2018. The drastic change to this industry has ushered in a new era where traditional shipping companies must adapt or perish.

Current Strategic Routes

Hapag-Lloyd's motto centres around its continued transformation into a "bigger, younger and more efficient" shipping company, explicitly communicating the company's desire to establish itself as a low-cost producer. The company anticipates that larger ships, with fewer fixed costs per unit of shipping capacity, will help it achieve better long-run margins should global demand recover post-2020. However, in the short-term, financial performance is likely to suffer: the greater fixed costs of larger ships are not offset by volume and margins fall below that of competitors. In the near future, average global freight rates in major trade routes are likely to remain depressed, resulting in lower top-line growth for Hapag-Lloyd.

> *"In the near future, average global freight rates in major trade routes are likely to remain depressed, resulting in lower top-line growth for Hapag-Lloyd."*

To address the short-term supply-demand imbalance, the industry has trended toward consolidation. Hapag-Lloyd is no exception, given its mergers with CSAV and UASC—two powerhouse shipping companies dominating the Latin American and Far East trade routes—in 2014 and 2017 respectively. The spread between global shipping supply and demand implies that by 2020, the industry will see consolidation and competition between the top 10 players intensify.

Despite the current trend of consolidation in the industry, this is not a sustainable strategy for Hapag-Lloyd. As of the third quarter of 2017, Hapag-Lloyd had incurred total debt levels of 20.1 times EBIT and net debt levels of 16.7 times. With debt-to-capital adjusted for operating leases of 59.7 per cent and interest coverage of 1.1 times, Hapag-Lloyd is reaching beyond its optimal capital structure. As such, to maintain balance sheet health and flexibility, Hapag-Lloyd needs to deliver cost efficiencies through means beyond mergers and acquisitions.

Fueling Up

Shipping companies which charter vessels between two fixed points do not pay for the ship's fuel. When shipping demand is high, vessel owners can raise chartering rates to reflect any increases in the cost of fuel and effectively pass off this cost to the chartering party. However, when oil prices start to rise in an industry riddled by overcapacity issues, the fierce competition amongst vessel owners makes it difficult to pass costs.

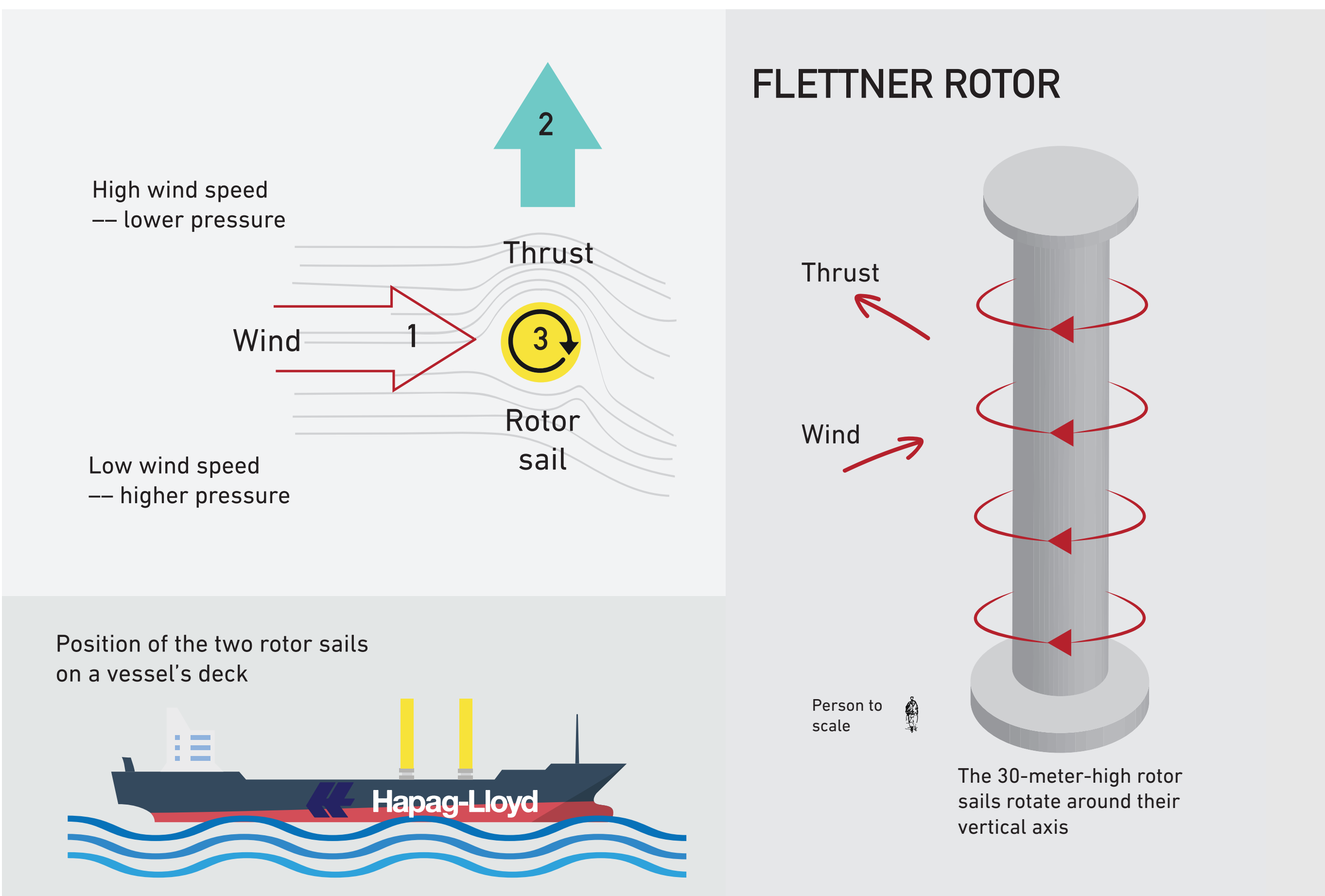
The four largest shipping companies—Maersk, MSC, CMA CGM and Cosco—do not own most of their ships but instead outsource an average of 63.8 per cent of their capacity. In an environment rife with overcapacity, these companies realize savings as vessel owners absorb rises in the cost of fuel. In contrast, Hapag-Lloyd owns just approximately 50 per cent of its ships. This is aligned with the company's desire to become a bigger and more efficient producer but means that any changes in the price of fuel directly impact the profitability of Hapag-Lloyd's operations. For example, over the first three quarters of 2017, freight rates increased by 2.2 per cent while the cost of raw materials and supplies, including fuel, increased by 78 per cent.

Hapag Lloyd thus benefits proportionally more from reductions in fuel costs and is uniquely positioned to take advantage of opportunities that other companies may be reluctant to pursue. In the current competitive environment, chartering companies realize little benefit from reducing their fuel consumption and have no incentive to apply new technologies to their ship. The industry has a traditional mindset, and while executives are interested in fuel-saving technologies, they do not want to take the risk of piloting innovations on a large scale. Competing on cost is especially important in the commoditized business, but for those willing to invest in technology, a solid business case can be made for doing so.

Flettner Rotors: Setting Sail

Within clean technology, the most attractive option is taking advantage of wind power in the open ocean. Wind speeds are greater over the open ocean than over land due to reduced friction from a lack of mountainous regions, trees, and human-made structures that cause resistance to wind flow. This opportunity is prominent in the Atlantic, Hapag-Lloyd's second largest trade route and a region which yields the highest revenue per trade. By utilizing wind power to propel its fleet alongside traditional methods such as diesel engines, Hapag-Lloyd can lower its fuel consumption, increase margins, and become competitive in the long-run.

THE FLETTNER ROTOR EFFECT



Clean technology, namely Flettner rotors, can be used to reduce fuel consumption. Flettner rotors are 18 to 30-metre rotor sails that rotate around their vertical axis. When wind passes the spinning rotor sail, the air flow accelerates on one side and decelerates on the opposite side and, as a result of the well-studied Magnus effect, a thrust is generated in the direction perpendicular to the wind flow. This thrust allows the engines to be throttled back; adopting the technology could cut fuel consumption on global shipping routes by an estimated 10 per cent. Since 2010, four Flettner rotors have been used by the wind turbine manufacturer Enercon on its E-Ship 1. In conjunction with other innovations like a streamlined propellor and rudder, Enercon has realized fuel savings of up to 25 per cent. However, Enercon has decided not to commercialize the Flettner rotors, with the E-Ship 1 used solely to transport wind turbines using global shipping routes.

Norsepower, a Finnish startup backed by European Union programs, has been improving Flettner rotor designs and preparing them for commercial usage. Fuel costs have been proven capable of being reduced by 5 to 20 per cent without lowering the operating speed of the ships. These rotors can be installed in new ships or retrofitted on existing ships, and thus could be implemented in Hapag-Lloyd's vessels. Estraden, a ship retrofitted with two 18-metre rotor sails in 2014, was verified by NAPA, a maritime data analysis, software and services company, and VTT, Finland's Technical Research Centre. The Flettner rotors on Estraden resulted in fuel consumption reduction of 6.1 per cent, saving the company $200,000 and 400 tonnes of fuel annually. In favourable wind conditions, each sail can produce upwards of 3 MW (3,000 kW) of power using only 50 kW of electricity, a multiple of 60 times.

Impact on Hapag-Lloyd

The required Flettner rotors for Hapag-Lloyd would be 30 metres in height and cost around €800,000 each to retrofit on existing ships. Hapag-Lloyd owns just under half of the ships they operate, 15 per cent of which are efficient ultra-large container ships that were put into service recently by UASC. The efficient ultra-large ships provide the necessary economies of scale for Hapag-Lloyd, and so the Flettner rotors would be better suited for the remaining 85 per cent, or 90 ships, that are less efficient. The number of Flettner rotors per ship depends on their size; to retrofit the entire 90 ships, a total of 194 Flettner rotors would be required at a cost of approximately €155 million. This retrofit could be accomplished within two years of contract signing.

By looking at comparable ships such as the Estraden and P-Class LR2 tankers, which weigh approximately 100,000 deadweight tons, Hapag-Lloyd can expect to achieve savings of three to five per cent per 30-metre rotor sail. By applying this benchmark to the 90 ships which would each be retrofitted with one to three Flettner sails, the average fuel cost per retrofitted ship is expected to fall by 14 per cent. This would generate €3.3 billion in savings over 25 years, the average life of the ships. The compounded annual return on investment is projected to be 12.9 per cent, surpassing Hapag-Lloyd's 8.2-per-cent cost of capital.

Flettner rotors also benefit Hapag-Lloyd given the current regulatory environment; the International Maritime Organization (IMO) has implemented a global container fuel sulphur limit of half a per cent mass by mass, effective January 1, 2020. Container ships typically run on bunker fuel, comprised of residual hydrocarbons from the petroleum refining process; 84 per cent of Hapag-Lloyd's current fuel mix is high in sulphur. IMO's incoming 2020 sulfur cap could impose total annual costs of around $5 billion to $30 billion for the container shipping industry, based on Organisation for Economic Co-operation and Development (OECD) reports. The rise in the cost of fuels associated with the transition away from sulphur will amplify Hapag-Lloyd's potential savings from using Flettner rotors.

When considering the implementation of this new technology, given that the container shipping industry is such a traditional one, at least some degree of resistance from Hapag-Lloyd's leadership team is to be expected. It is true that the Flettner rotor technology has not yet been widely adopted by other leading container shipping companies; players have been reluctant to engage in risky ventures on a large-scale. However, Flettner rotors have been shown to be effective and Hapag-Lloyd has the opportunity to differentiate itself from its competitors.

Christening a Breakthrough

The container shipping industry has been relatively traditional, until recently when new innovations started materializing to reduce fuel consumption. The risk-averse mindset of the industry has prevented large players from engaging in risky ventures on a large scale, but Hapag-Lloyd is uniquely positioned to realize benefits from reduction in fuel costs. If economies of scale are achieved with the Flettner rotors, Hapag-Lloyd has the opportunity to realize savings of up to 30 per cent across its entire owned fleet, amounting to approximately €300 million in annual savings. In an industry as competitive as the global container shipping trade, the difference between success and failure can be as small as a few million euros; an extra €300 million could redirect a company's course towards becoming an industry leader.

BLUE APRON: **COOKING AT HOME AWAY FROM HOME**

To maintain industry leadership, Blue Apron needs to secure partnerships and diversify into new revenue streams

Adam Motani and Amy Xu

Illustration by: Alvin Tse

Stirring the Pot

Blue Apron, the New York-based meal kit delivery company, was founded by Wadiak and Ilia Papas in 2012 with only 20 recipes. Six years later, Blue Apron has grown into an industry leader with nearly one million customers and 40.3-per-cent market share as of September 2017. Despite being one of the best-known meal kit brands, Blue Apron is facing severe competition in the industry as retail giants such as Amazon and Walmart diversify into meal kits. Leveraging its existing distribution network, Amazon saw sales in the U.S. grow by 59 per cent in 2017, further boosted by Amazon's recent Whole Foods acquisition. In addition to large retailers, the market is highly competitive and fragmented with numerous other players including Hello Fresh, Plated, and Home Chef, pressuring Blue Apron to take immediate action. Ultimately, Blue Apron faces significant customer churn and high customer acquisition costs, resulting in a lack of profitability within an increasingly competitive landscape.

Grocery Giants Serving Up Mealkits

Through its acquisition of Whole Foods, Amazon took large strides into the U.S. grocery market, subsequently launching its meal kit delivery service in the Seattle area. Similarly, Walmart started selling approximately 30 meal kits from multiple brands in-store, partnering with Buzzfeed's Tasty team to integrate cookware purchases into its mobile application, and will soon offer groceries required for recipes as well. The advances of these two retail giants into the meal kit delivery space worsened financial prospects for the already-struggling Blue Apron and the broader meal kit industry. Since its IPO last June, Blue Apron's stock price has tumbled 71 per cent from the IPO price of $10 to $2.71 in March 2018. The company remains unprofitable, posting a net loss of $39.1 million last quarter. In an effort to reduce operational costs, Blue Apron laid off hundreds of workers last October; however, the company must look towards other margin expansion opportunities to remain sustainable.

Training Wheels for Home Cooking

The financial distress of Blue Apron can be mainly attributed to the nature of its revenue model. Since many customers perceive Blue Apron as "training wheels" that help people learn how to cook, users tend to cancel their subscription shortly after signing up, leading to low retention rates. According to a survey conducted by Cardlytics, out of the 45,000 new subscribers who signed up for Blue Apron in January 2016, 28 per cent canceled within the first month, 52 per cent canceled by the end of June, and 71 per cent canceled by year end. Consequently, the profit made from an average customer fails to make up for the disproportionately high acquisition cost, leading to a continuous cycle of unprofitability. During the first quarter of 2017, Blue Apron spent $60.6 million on marketing to acquire 157,000 more customers, representing an average acquisition cost of $386 per customer. Given that the average revenue per customer for the same quarter was $236 with a gross margin of 31.2 per cent, the company earned $73.6 of gross profit per customer that quarter. This means that Blue Apron can recoup its customer acquisition cost of $386 in 16 months. As the company experiences an overwhelming 71 per cent of subscription cancellations within 12 months, the meal kit maker can rarely recover its marketing expenditures.

Attempts to Keep Up

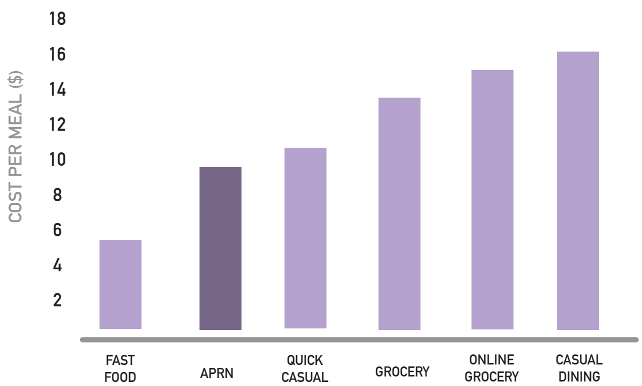
Aware of the current headwinds in the market, Blue Apron is making progress towards improving its business model. Since the company's value proposition is deeply rooted in the freshness and sustainable impact of its products, there is limited pricing flexibility due to higher input costs. Nevertheless, price is one of the most important product characteristics for consumers; a Harris Poll suggested that 46 per cent of people expressed willingness to purchase meal kits if they were less expensive. Given its limited ability to cut prices on meals, Blue Apron has looked to change the consumer perception of its pricing by reducing their minimum order threshold. Decreasing the minimum order threshold by approximately 20 per cent and lowering the number of meals within the minimum order by 33 per cent made the service more accessible to a wider range of customers. Blue Apron has also broadened their product offerings: by introducing wine, cookware, and utensils, the company is transforming into a one-stop-shop for cooking. These new products were introduced with the intention of increasing the potential revenue per customer. However, these initiatives failed to address the core problems of rising customer churn and acquisition costs. Although Blue Apron's customer acquisition cost increased by 181 per cent in 2016, the number of customers only grew by 105 per cent compared to 2015.

Airbnb Opportunity

To reinvent its operations and drive a new source of customer demand, Blue Apron should expand its target market and provide meal kits to travelers by partnering with Airbnb. People are constantly looking to make travel more affordable; accommodations, transportation, and food costs result in significant expenses for travellers, many of whom are price-sensitive. According to research by the Royal Bank of Canada (RBC), Blue Apron's offering provides the second cheapest meal solution at restaurant quality, with quick service restaurants being the cheapest.

This makes Blue Apron meal kits an attractive alternative to eating out. Moreover, Airbnb is the natural choice for this new initiative, as many rental units in the U.S. provide kitchen amenities, allowing travelers to cook during their trip. Unlike people who typically stay at hotels, Airbnb travelers are more price-conscious and book longer stays on average, making Airbnb an ideal partner for Blue Apron.

RESTAURANT MEAL PRICE COMPARISON



Source: RBC Initiating Coverage Report

Target Market

With the introduction of this new service, Blue Apron should target Airbnb customers visiting the United States and staying at Airbnb rental units for periods between two weeks to one month. Presumably, patrons staying for mid-to-long periods at Airbnb would consider price-conscious options as substitutions for dining out. In terms of demographics, young tech-savvy student travellers between ages 18 to 24, along with families on vacation between ages 24 to 34 make up the primary target market for this new service.

Integration Logistics

After booking their stay on Airbnb, travellers will be directed to a Blue Apron page with meal options for purchase to be delivered to their travel destination. The page can also illustrate potential savings of cooking instead of dining-out, encouraging customers to make purchases. Similar to how movie theatres use concessions to increase revenue per customer, Airbnb can establish an all-encompassing travel ecosystem by partnering with Blue Apron, where customers can find both living and eating recommendations on the same platform.

Implementation of this strategy would be enabled by Blue Apron's existing nationwide delivery network. By partnering with Airbnb's existing U.S. listings, no additional infrastructure would be required. Currently, Blue Apron requires a four-day lead time for orders; new orders received through Airbnb would require a similar lead time.

Impact on Blue Apron

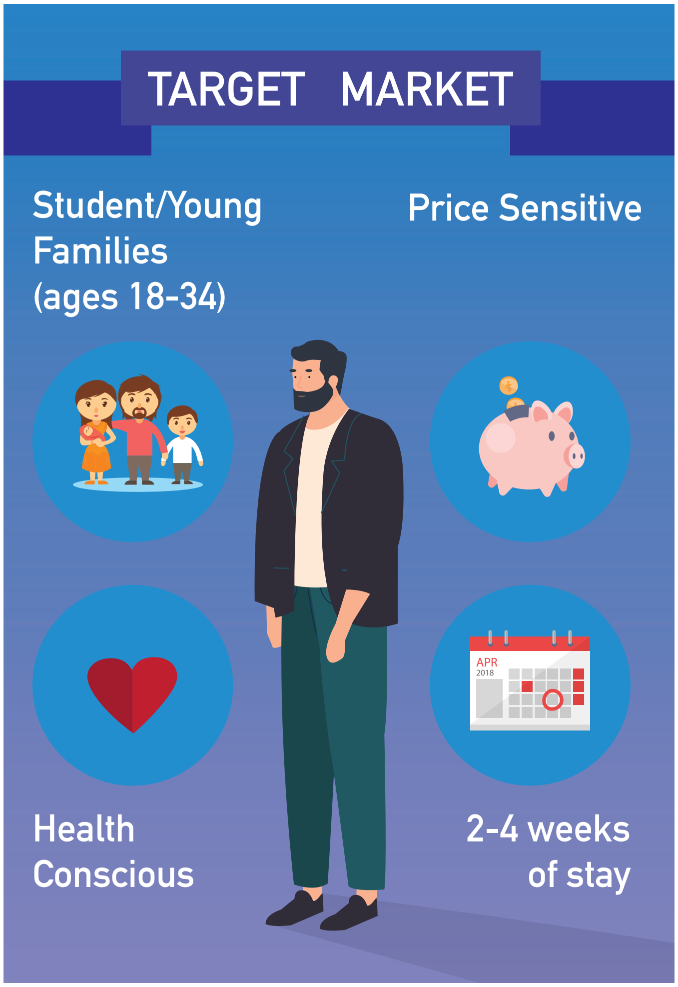
Through this partnership, Blue Apron will establish a new revenue stream targeting on-the-go travellers instead of subscribers at home. This new initiative addresses the "training wheels" perception, as travellers view meal kits as a high-quality alternative to eating out at restaurants rather than a learning tool. Additionally, of all Airbnb rooms sold, 29.2 per cent were part of a trip that lasted between seven and 29 days. These longer-than-average stays will provide a sustainable and lengthened source of revenue for Blue Apron, directly combatting the core issue of revenue volatility.

Given that Airbnb has 660,000 rental units available in the United States with an average occupancy rate of 66 per cent, there is a total of 159 million nights booked on the platform each year. Since the average length of stay per customer is approximately three nights, there are 53 million distinct bookings made in the U.S. each year. Due to the larger scale of Airbnb relative to Blue Apron, if only eight per cent of travelers to the U.S. decided to book an average of three meals during their Airbnb stay, Blue Apron would experience a gross profit increase of seven per cent. The target market of customers between ages 18 to 34 represent 60 per cent of Airbnb's guests, making the eight-per-cent rate of purchase reasonable.

A notable risk is whether there would be a sufficient number of new customers from the partnership to drive the anticipated financial benefits. The projected increase in gross profit of seven per cent represents the worst-case scenario, because the calculations only account for revenue directly generated through Airbnb. It is anticipated that a segment of travelers could also convert to permanent subscribers of Blue Apron, which will further improve the company's financial condition.

Besides its financial benefits, this initiative will also establish a foundation for future expansions. Currently, the meal kit market has a penetration of around half a per cent of all grocery orders, with approximately 37 per cent of people unaware of what a meal kit is. As consumer awareness increases, there will be a significant growth opportunity for Blue Apron. Additionally, Blue Apron only services consumers in the U.S., while Airbnb has been able to secure around 25 per cent of the overall leisure travel market, with penetration of up to 50 per cent in some regions. Airbnb's global presence highlights the potential growth that can be realized by Blue Apron through international expansions. If the U.S. partnership is successful, Blue Apron can look to realize revenues from the partnership in other markets as it continues to expand internationally.

BLUE APRON TARGET MARKET



Benefits to Airbnb

Hotels do not usually offer kitchens, therefore meal preparation is not always possible. Through the Airbnb and Blue Apron partnership, one of the unique benefits of Airbnb—having additional amenities such as kitchens—is made more valuable to patrons. By using Blue Apron, customers would also save around 50 per cent per meal compared to going to a restaurant, making Airbnb an even more attractive option for customers seeking meal discounts.

In this arrangement, Blue Apron will share part of the revenue generated from this initiative with Airbnb as an incentive to enter into the partnership. If Blue Apron provides nine per cent of generated revenues to Airbnb as royalties, Airbnb's bottom line is expected to increase by seven per cent, assuming minimal implementation costs. This royalty cost will be offset by a subsequent decrease in Blue Apron's marketing expenditures. Currently, Blue Apron's marketing expenditure is highly ineffective, as the company loses money for every new customer recruited. Reallocation of marketing expenditure towards the Airbnb partnership will more effectively bolster sales, promote brand recognition within a new group of target customers, and reduce the cost of customer acquisition.

Historically, Airbnb has also been open to partnering with other organizations that provide complimentary offerings, allowing Airbnb to better compete in the traditional hospitality industry. For example, in late 2017, Airbnb partnered with WeWork to find working spaces for business travellers, an alternative to booking costly business conference centres from hotels. In addition, Airbnb has also partnered with travel management company Trio and apartment company Veritas Investments. Clearly, there is reason to believe that partnering with Airbnb is more than just a pipe dream.

Mixing All the Ingredients Together

Blue Apron lacks a clear competitive advantage against low-cost retail giants and must diversify its revenue model to survive. Through its expansion into the travellers market, Blue Apron can create a new niche for "home cooking away from home" and improve its financial profitability.

> *"Through its expansion into the travellers market, Blue Apron can create a new niche for "home cooking away from home" and improve its financial profitability."*

Moving forward, Blue Apron can take advantage of its strong infrastructure and high-quality ingredients to compete against global behemoths like Amazon and Walmart. For instance, the company could one day provide healthy meal kits for schools, summer camps, and hospitals, or source ingredients for restaurants. All these potential customers would benefit from nutritious, high-quality ingredients, and as a result, Blue Apron is uniquely positioned to create an ecosystem that rewards all stakeholders in the long term.

DISNEY: CONTINUING TO BRING CHARACTERS TO LIFE

Transitioning into STEM educational toys will allow Disney to maintain an on-screen and in-person connection with "Generation Z"

Alina Lalji and Bobby Kaloty

Illustration by: Selina Li

Entering the Kingdom

Walt Disney Company (Disney) has sat atop the global media production industry for the better part of a century. From the iconic white-gloved mouse to some of the world's most elegant princesses, Disney has established a brand unparalleled in the industry. Much of this success can be attributed to a corporate strategy centralized around "bringing characters to life" with an ecosystem of assets that builds a strong connection between on-screen content and in-person purchases.

This concept of deriving value from digital assets can be observed as early as 1957, where archives show Walt Disney's depiction of organizational structure: a central film/digital asset that will help generate value beyond the screen through offline entertainment assets including resort parks; publications, such as magazines, books, and comics; and merchandise.

Since 1957, Disney executives have worked tirelessly to execute on Walt Disney's original vision. This has most recently been done by CEO Bob Iger, whose deal-making ability helped Disney strategically acquire major media players such as Pixar and Lucasfilm. Iger's "tentpole strategy" involves creating large media franchises such as Frozen, whose merchandising revenue has surpassed box office sales. Each of Disney's unique franchises, also known as intellectual properties (IP), consists of an elaborate set of characters and storylines designed to captivate the consumer. Disney's success in engaging children and commercializing each franchise is a driving factor in the company's success as one of the world's most powerful brands.

Disney's Consumer Products and Interactive Media (DCPI) is the segment that brings Disney's IP to life. The segment, responsible primarily for licensing Disney content for product applications, including comic books, video games, applications, and toys, saw revenues slide by 13 per cent to $4.8 billion over the course of 2017. While DCPI is only responsible for a meagre nine per cent of overall sales, it serves as an indicator of the company's ability to monetize on-screen media through in-person purchases, or, simply put, Disney's competitive advantage of "bringing characters to life."

Approaching Midnight

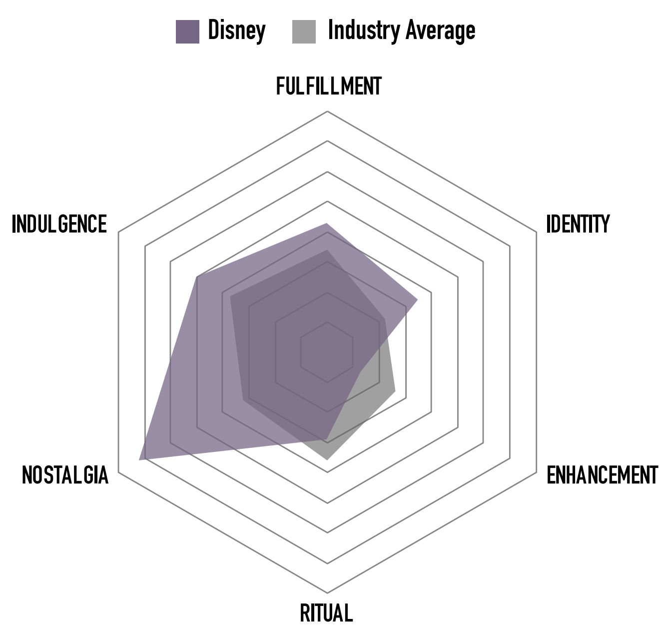
Historically, a child's buy-in to a Disney franchise was precipitated by their on-screen connection to a movie. This engagement led children to form strong, passionate attachments to the franchises, often persisting into adulthood. To foster this attachment, Disney developed a range of everyday products so that children "could watch, sing, play, dress, bathe, eat, and sleep in princess products and 'be' Cinderella all day long."

Disney's historical success in cultivating attachment in consumers while still young can be seen through brand intimacy rankings. In 2017, Disney ranked the highest in brand intimacy for those aged 18 to 34, and second overall for all consumers 18 and over. These consumer relationships were largely characterized by nostalgia, but as the younger demographic begins a natural transition to a new generation, nostalgia may no longer be enough for future brand intimacy. DCPI's volatile performance signals a need to adopt a more effective method of engaging and retaining the upcoming Generation Z (Gen Z) and following generations.

Gen Z: Functional Product Value, Not Nostalgia

Gen Z is the population born in the mid-1990s to mid-2000s. This consumer segment and those around this age range are critical when it comes to marketing and requires a very different approach to be successfully converted to customers. With increasing use of technology, this generation is exposed to more media products than ever before. It is becoming increasingly important for media brands to differentiate their products in the competitive environment. Children in this segment are not as loyal as the previous generation and are ready to switch to brands and products that offer more value. This trend has been seen across industries including clothing and toys. Given Gen Z's customer preferences for product value, Disney's overreliance on nostalgia to capture the current millennial

DISNEY BRAND INTIMACY RANKING



Source: MBLM The Brand Intimacy Agency's 2017 Ranking market will not prevail as Gen Z ages. Disney must figure out alternative methods of generating products that have high functional value to make the brand top-of-mind with the valuable Gen Z cohort.

Gen Z is expected to represent 40 per cent of the world's consumer base by 2020 and to become a large influencer on family spending. Disney's success in maintaining its reign as one of the most powerful brands will hinge upon acquiring and retaining this new generation of customers. DCPI has historically built its portfolio around licensing brands into products such as t-shirts and mobile apps that focused on branding rather than functional value. However, the current product mix offered by DCPI is misaligned with the values of Gen Z. The next set of services and products offered by DCPI needs to be within a line of products that serves a functional need for customers rather than relying solely on the brand.

Stemming New Growth

The market for educational development toys is projected to reach nearly $40 billion globally by 2019 and to grow at 10 per cent annually through 2021. Moreover, 76 per cent of this market will be geared specifically towards science, technology, engineering and mathematics (STEM) toys. The boom in these toys can be attributed to parents and educators beginning to recognize both the benefits of interactive learning during a child's critical development years and the increasing importance of STEM-related fields. As children age and develop skills, they need new products tailored to the next stage of learning. With parents and educators heavily invested in early childhood development, DCPI can find success in offering STEM toys as an at-home solution for parents, and also as a scalable method for bolstering educators' in-school curriculum.

Disney's Next Move

To maintain its competitive advantage of a strong connection between on-screen viewing and in-person purchases, Disney should redesign its DCPI product lines for the vastly different Gen Z segment. Educational toys present a unique opportunity to not only leverage Disney's existing IP collection, but to directly create a strong off-screen interaction with Gen Z customers.

> *"To maintain its competitive advantage of a strong connection between on-screen viewing and in-person purchases, Disney should redesign its DCPI product lines for the vastly different Gen Z segment."*

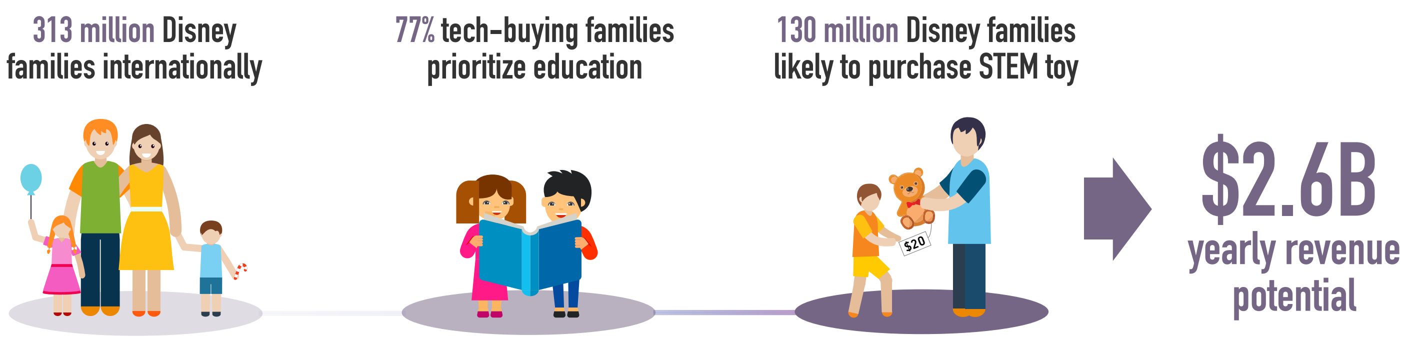
Educational toys will help Disney retain Gen Z by offering a product lifecycle that progresses naturally with children as they mature in education levels. As children progress to a new stage of learning, there is a natural progression of product lines to purchase.

A New Toy Story with Kidtellect

When shopping for STEM toys, parents look for products that offer a hands-on experience and educational value. It will be imperative for Disney to not only leverage its strong brand recognition, but also design toys that provide competitive educational value to children. Disney should acquire Kidtellect, a company with deep expertise in developing STEM toys, and complement the products with its own strength in branding to develop an unparalleled offering. By acquiring an existing player with a proven product, Disney can forgo the research and development process in developing educational toys and augment the products with its core competencies in brand development.

The recommended target, Kidtellect, develops packages of educational toys and applications for children aged two to eight under the brand Tiggly. Currently, Tiggly focuses on math development, problem solving and understanding shapes. Tiggly has successfully launched a curriculum for one of four STEM fields, presenting an opportunity for Disney to expand the toy line in the other three. The

DISNEY STEM PROJECTIONS



Source: Statista, Public Broadcasting Service Survey company has mastered engaging and valuable curriculum creation and is trusted by both parents and teachers to either jumpstart or supplement their children's learning. To date, Tiggly's toys are used in classrooms in more than 4,000 schools worldwide.

A Whole New World

Disney's STEM toy line should mimic the format of Tiggly's existing product line: a set of physical toys which help children develop a specific skill set, supplemented by mobile and tablet-based applications. Disney's IP, however, adds value that Tiggly could never hope to achieve. With the exception of some Sesame Street characters, Tiggly's toys are based upon proprietary IP and lesser-known characters. Post-acquisition, children would be able to learn with their favourite Disney princesses and Marvel superheroes.

To retain long-term customers, Disney's products must be cognitive and affective. Tiggly accomplishes the cognitive side of this equation: its widespread adoption evidences that it has convinced parents of its educational merits. However, children lack a strong emotional connection to its characters. These same children likely have been familiarized with Disney's characters through parks and resorts, movies, and television and thus, have a strong emotional attachment to these characters.

To further ensure the longevity of Disney's IP and to maximize its value, toys should incorporate characters from multiple IPs, if possible. For example, an alphabet book could feature several different characters from the Disney universe. This will ensure IP longevity over time, as children will be consistently engaging with a variety of characters and content from Disney's history.

As opposed to a simple character licensing strategy, Disney must complete a full acquisition of Tiggly to roll-out a comprehensive STEM product line. Additionally, as many of Disney's STEM toys will leverage multiple IPs, the company needs to maintain control over the mix of IPs that go into the market to maximize the highest potential IPs.

Marvel of Value

The most critical outcomes of Disney's pivot to providing STEM toys will be an increase in customer lifetime value (CLV) for Gen Z customers, which will be seen through the lengthening of connection between on-screen content and in-person purchases.

Disney's CLV enhancement will be driven by two forces. First, with educational toys more likely than traditional toys to spur ongoing purchases, the STEM offering will provide DCPI with a sizeable revenue stream. Second, the STEM toys will incorporate various characters from the Disney umbrella and create spillover effects to the broader Disney ecosystem, lengthening the relevancy of IP over a child's lifetime. Beyond just STEM toys, sales of future products for an IP should also improve as a result. Additionally, because Disney's IP caters to a variety of age groups, Disney will be able to grow the product as its customers age, retaining them throughout much of their childhood and boosting the nostalgic value for which Disney is renowned.

The potential revenue uplift is calculated based on the following: the number of households subscribed to Disney Channel, the income brackets that will have the discretionary income to purchase toys, and an assumed $20 purchase price for the STEM product. Through this analysis, Disney will be able to reap $1.48 billion in DCPI revenue uplift once it has established itself as a reputable STEM player in the international market. This is a 30.7-percent increase from 2017 DCPI revenues and does not factor in spillover effects on sales of other product categories. With a world-leading brand, Disney will be able to transfer its brand value into this vertical to capture the market.

Return to Pride Rock

Transitioning into the world of STEM educational toys presents an exciting opportunity for Disney's DCPI segment. As the upcoming wave of Gen Z children prefer products that provide functional value alongside familiar characters, Tiggly's portfolio of STEM toys are a perfect fit to acquire and retain children over the long term. As customer demographics and industry dynamics continue to shift, Disney must find innovative strategies to defend its core competitive advantage: bridging the world of on-screen content and in-person purchases by magically bringing characters to life.

23ANDME: **BUILDING A GENETICALLY-SOUND COMPANY**

Despite its entry into traditional pharmaceuticals, 23andMe should use genes to build digital therapies in order to break into the therapeutic industry

Spencer Prashad and Shan Srikanthan

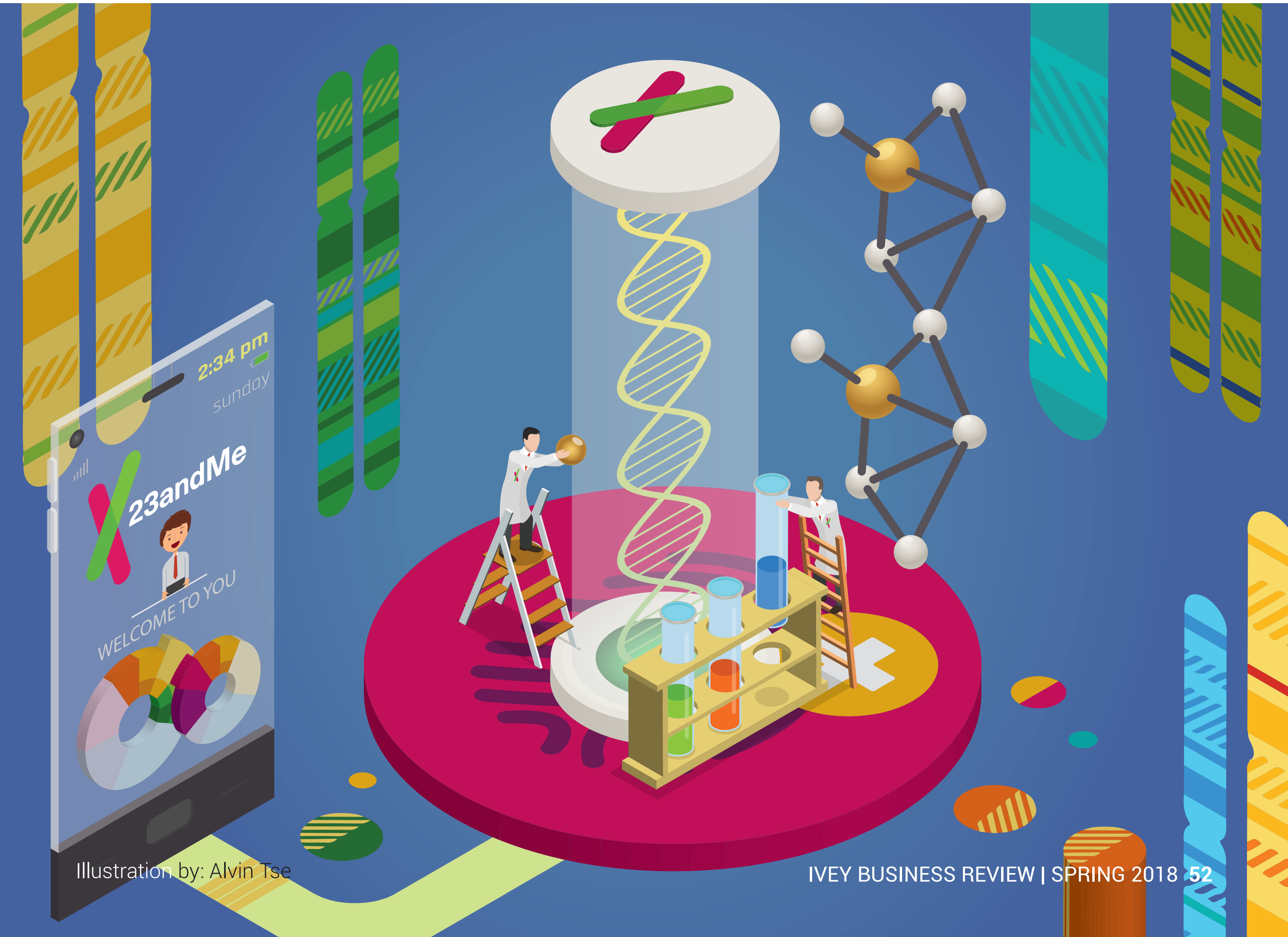


Illustration by: Alvin Tse

Every human possesses a unique set of characteristics housed in billions of genetic base pairs that make up the double helix known as 'DNA'. These unique genetic variations define who we are and how we react to the outside world. Until recently, obtaining this information was largely inaccessible due to high associated costs and an overall lack of awareness and demand from consumers. Fortunately, technological advancements in genetic sequencing have made this information both accessible and usable. Innovative companies such as 23andMe are at the forefront of leveraging genetic data to help us understand ourselves better than ever before.

23andMe is the first genetic testing company to be approved by the Food and Drug Administration (FDA), having received approval for the application of 10 different tests in April 2017. The company collects DNA samples from customers, analyzes the genetic makeup, and synthesizes these findings into personalized reports with analysis on ancestry and genetic predisposition to health risks based on each customer's unique genetic variants.

Through this, 23andMe accumulated the world's largest bank of sequenced genetic data that contains 1.2 million records, of which 80 per cent is consented to be used for research. This data is monetized through partnerships with pharmaceutical companies, research centres, and NGOs. Given the lack of research surrounding the effectiveness of leveraging genetic data to inform medical decisions, 23andMe's business model is exposed to regulatory intervention, which limits the scope of information shared within its direct-to-consumer genetic reports.

Against 23andMe's Genetics

As of 2016, the global pharmaceutical development industry is worth $158.0 billion, and many companies, both small and large, are aggressively competing to capture and retain market share. Drug development has significant financial and human capital requirements. In addition, future cash flows are highly uncertain and often hinge on receiving the highly sought-after FDA approval.

23andMe currently has research programs targeted toward therapeutic development in oncology, skin, respiratory, and cardiovascular disease. The company recently hired a former executive of the pharmaceutical giant Genentech, which specializes in biotech cancer drugs, to lead the initiative as Chief Scientific Officer and to begin building out the human capital needed for drug development. However, the likelihood of success within this space is low given 23andMe's lack of experience, reputation, and financial resources relative to large pharmaceutical players.

In an effort to diversify revenue streams and hedge overall operating risk, 23andMe raised a $250 million round of funding led by Sequoia Capital and announced its intention to enter the drug development space. Although 23andMe has invested heavily in drug development, the process of developing a drug from experimental trials to FDA approval costs, on average, $2.6 billion, a sizable figure when compared to 23andMe's $1.75 billion valuation. This figure is comprised of $1.4 billion in out-of-pocket costs, including cost of research, discovery, development and preclinical research, and $1.2 billion in time-related costs, defined as the opportunity costs associated with pursuing a project. Additionally, 23andMe's proposed model of translating genetic findings into drugs can take even longer. Therefore, even if 23andMe does discover potential leads in early experiments, the company will likely have to rely on partnerships to finance and execute the development, refinement, and screening of compounds. Partnerships allow start-ups to access deep corporate pockets and resource troves which can subsequently accelerate product development—something especially useful for startups that deal with long product development cycles.

Whereas most large pharmaceutical companies can implement a portfolio approach to hedge their risk, smaller, less-established pharmaceutical development companies lack the resources to do so and must concentrate on only a few drugs. This implies that 23andMe would assume high financial risk, which could compromise its core direct-to-consumer genetic testing business. Instead, digital therapeutics, an emerging industry, offers a better strategic fit as an entry point for 23andMe.

Digital Therapeutics: An App-ealing Opportunity

For the first time ever, software in the form of games or apps can replace pills and therapist visits as therapeutic treatment. Digital therapeutics leverage technology to encourage behavioural and lifestyle changes that can treat, prevent, and manage a number of medical and psychological conditions. These treatments can be prescribed as standalone therapy or used in conjunction with traditional pharmacological therapy. The notion of an FDA-cleared, software-based therapeutic solution is a new concept with immense potential to disrupt therapeutic treatment for a number of medical ailments.

Digital therapeutics is projected to be a $9.4 billion market by 2025. The industry is projected to grow at an annual rate of 21 per cent, outperforming the broader pharmaceutical market which is projected to grow at an annual rate of 6.3 per cent. 64 per cent of pharmaceutical companies participating in a Deloitte study have already used digital technologies in clinical trials, while 97 per cent have indicated plans to implement it. This signals an industry-wide shift towards leveraging technology in both development and treatment initiatives, which is supported by potential savings and valuable data collection opportunities.

Goldman Sachs projects over $305 billion in savings with the rise of digital healthcare pointing towards a shift in future healthcare spending. In 2016 alone, U.S. healthcare spending totalled $10,348 per person; given that 18 per cent of U.S. GDP is related to healthcare expenditure, digitization can yield large savings. In addition to cost savings, the software-based nature of digital therapeutics collects data that can increase overall transparency for all stakeholders.

Digital therapeutics enable the collection of valuable data that tracks how, where, and when users interact with the app. This data can be utilized by other digital therapeutics developers, doctors, patients, and insurance companies to track the efficacy of the treatment method in unprecedented ways. Insurance companies often cover partial or complete costs for most prescription drugs depending on individual coverage levels, but it is difficult to track whether the policyholder is using the drugs as prescribed, or even using them at all when treatment is in the form of pills. Data collected from digital therapeutics enables insurers to monitor the usage patterns of their policyholders, thus facilitating a more robust understanding of their policyholders. Additionally, insurers can actively monitor patient-treatment compliance and actively adjust premiums to account for the differential risk on an individual basis.

As many insurers move towards an adaptive insurance approach, they are leveraging real-time data from technology, such as personal fitness trackers, to adjust their risk models and take an active role in risk management. Insurers can do this by using monetary rewards, such as lower premiums, to reward risk-reducing behaviour such as reaching the daily recommended step count. Digital therapeutics conforms with this broader trend, and the data provided will help increase efficiency within insurance, drug development, and treatment.

Pear-scribing a Way Forward

23andMe should enter the emerging digital therapeutics space via an acquisition of Pear Therapeutics (Pear). Acquisition is not uncommon in the therapeutics industry, with an average of 28 acquisitions of research and development (R&D) -stage companies occurring annually. Pear is an established digital therapeutics developer with the first FDA-cleared digital therapeutic on the market.

Entering digital therapeutics via acquisition is better than entering organically for two main reasons: reputation and timing.

Pear has one of the most established reputations among digital therapeutics developers, which has attracted interest from patients, insurers, and regulators. Pear was one of nine companies selected to participate in the FDA's pre-certification program, which seeks to expedite the FDA-clearance process for firms deemed to be safe and responsible. This differentiation, combined with being an FDA-approved first-mover, contributes tangible and intangible benefits to Pear's brand ultimately increasing the inimitability of its competitive advantage. Taking advantage of Pear's preferential treatment with the FDA will yield significant cost and time savings during the development process.

Given the early stage nature of digital therapeutics regarding industry life cycle and degree of technology adoption, entering the market in a timely manner is crucial to capitalizing on growth as market saturation increases. The average time for FDA clearance of a new device is around half a year, not including the time required to develop the device and restructure business units. Assuming that the combined entity of Pear and 23andMe can capture a conservative 10 per cent of the digital therapeutics market over the next three years given their first-mover advantage, the implied opportunity cost of organic entry is approximately $840 million in foregone revenue.

23andMe and Pear Therapeutics: Two Complementary Base Pairs

Pear Therapeutics' current work in treating major depressive disorder aligns with 23andMe's past work in depression, illustrating the potential benefits of a combined entity. A digital therapeutic solution will increase the accessibility of depression treatment to individuals where cognitive behavioral therapy would not otherwise be attainable, thus ensuring that patients receive the treatment they ought to have. In addition, 23andMe has experience aggregating large groups of research participants with required characteristics, which they can leverage to access potential participants for clinical trial recruitment.

Patient recruitment typically comprises around one-third of clinical trial costs. Moreover, one third of FDA Phase III clinical trial failures result from the inability to recruit participants. By leveraging previous experience with research participant aggregation, 23andMe can streamline Pear's patient recruitment process and offer preferential access to participants, thus lowering costs and increasing patient retention, another common issue in clinical trials. Consequently, it would increase the efficacy of these trials while simultaneously reducing costs associated with participant replacement.

If 23andMe has a vested interest in Pear's digital therapeutic development, the two companies can follow a collaborative building process for their apps that facilitates a smoother, more efficient flow of data. The benefits are two-fold. First, genetic data can be integrated into the R&D for digital therapeutic development. Second, the data collected by the apps could highlight the value of incorporating genetic data for the medical community and reduce the amount 23andMe needs to spend on other research.

Overall, 23andMe's vision to be at the forefront of healthcare technology is aligned with Pear Therapeutics' revolutionary work in digital therapeutics. According to the FDA, advances in computational power are paving the way for personalized medical treatments that consider a patient's genetic, anatomical, and physiological characteristics. As both companies invest in research to validate the effectiveness of their respective technologies and methods, cost efficiencies can arise through the consolidation of redundant research efforts.

Personalized Medicine: Symptoms of Change

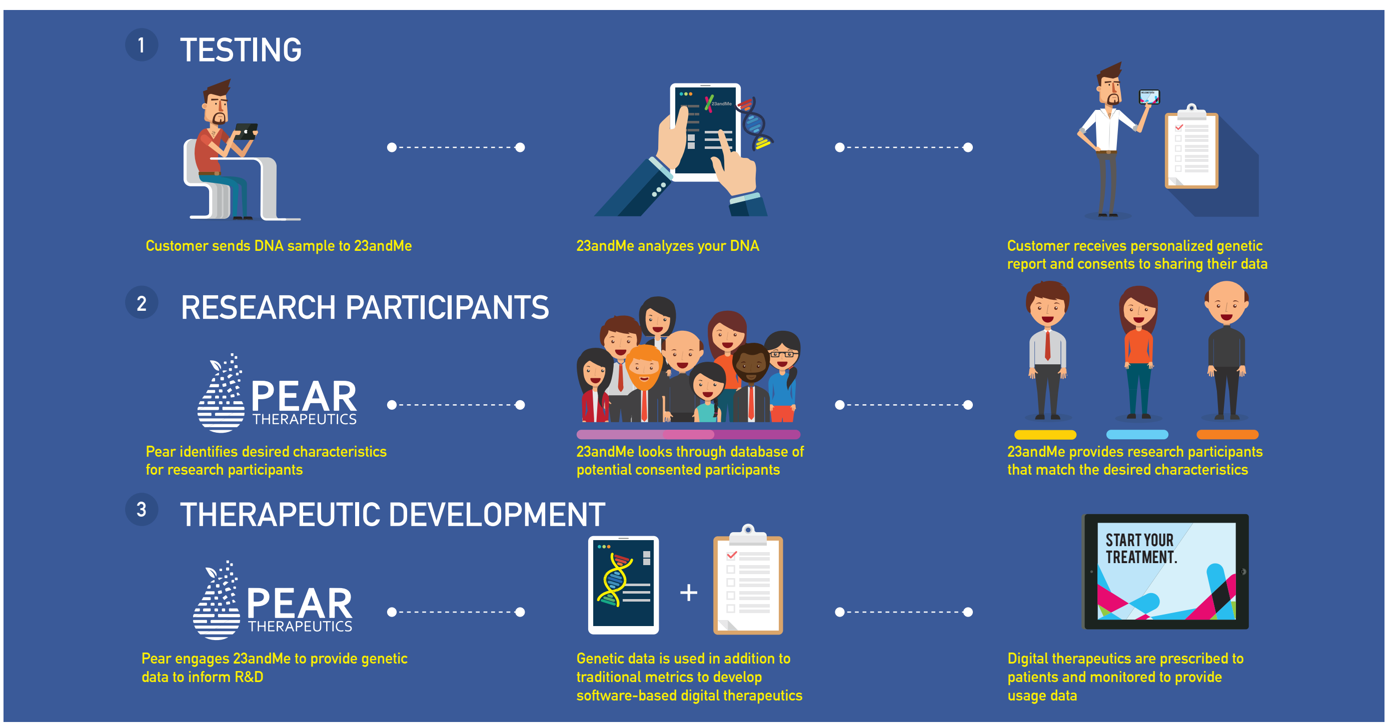
Beyond any profit-seeking objectives, entry into digital therapeutics satisfies 23andMe's mission to revolutionize healthcare and to help people access, understand, and benefit from an understanding of the human genome. To achieve this, digital therapeutics optimizes usage patterns and personalizes its platform accordingly.

In the future, 23andMe can evolve from informing drug development toward a more active role in treatment decisions in the form of "Therapygenetics." The term is used to describe the differential response individuals have to behavioral treatment based on their genetics, and would involve using each user's unique genetic characteristics to optimize the selection and delivery of treatments. The end result is an additional layer of personalization.

Entry into digital therapeutics is a necessary first step towards personalized medicine. Since the decrease in the cost of genetic sequencing, scientific advances have made personalized medicine a reality, but one that faces barriers of validation and regulation before mainstream adoption. Currently broader, more universally applicable treatment approaches are preferred due to the economics of drug development; however, the FDA recognizes that "the advent of mobile and wireless capability, better sensors, interoperable devices, and the Internet have led to technologies that allow for more effective patient monitoring and treatment outside the traditional medical care settings."

Healthcare continues to evolve alongside research and technology but requires bold companies like 23andMe to continually challenge the status quo. Similar to its revolutionary work in direct-to-consumer genetic testing, an opportunity exists for 23andMe to push the envelope in digital therapeutics. Acquiring Pear Therapeutics and entering into the digital therapeutic development is clearly consistent with both 23andMe's corporate strategy and DNA—no genetic testing required.

HOW IT WORKS



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