waterloo business review

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Innovative Perspectives, Journalized.

BUSINESS STRATEGY
Disney's New Streaming Magic

INTERVIEW
Evercloak: The Startup Fighting Climate Change

GLOBAL AFFAIRS
The Middle Eastern Cold War

Volume 1

Fall 2019 ISSUE

Table of Contents

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Editor's Letter

Here at Waterloo Business Review, we have a 3-fold mission: to engage, educate, and empower undergraduates to pursue their greatest potential. Through our online publication, we hope to provide content that will equip students with the business acumen to help them build their knowledge to thrive in a transforming professional environment.

We ensure that every single article that we share with you will provide thought leadership, and offer you valuable perspectives that you can apply to your everyday life.

Andrew Dai
Editor In-Chief, Waterloo Business Review

Our Team

Our dedicated and passionate team is focused on growing and establishing the Waterloo Business Review in the Waterloo and Kitchener business community.

Waterloo Business Review empowers our team through our emphasis on creative freedom, professional development of research and communication skills, and our culture of entrepreneurship and growth as we nurture members to adopt positions of greater responsibility and leadership.

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Disney's New Streaming Magic

Andrew Dai

December 2019

Thanks to its deep history and strong brand, Disney has garnered a reputation for being one of the world's leaders in the entertainment industry. Founded in 1923, Disney's success started with its animation studio through its creation of memorable characters such as Mickey Mouse, Goofy, and Donald Duck. Since then, Disney has expanded into the broadcasting industry, established some of the world's most well-known amusement parks, and has added to its long list of characters. With markets moving towards on-demand video, specifically streaming video on-demand (SVOD) services, Disney's next steps involved the release of Disney+. Announced on April 11, 2019, Disney+ is Disney's newest venture in the SVOD industry. The streaming service gives on-demand access to Disney's exclusive content library spanning its key brands including Marvel, Star Wars, National Geographic, Disney Channel, and Pixar. At 7 USD a month, how does Disney+ stack up against its competition?

Disney's Expansion to SVOD

How did Disney set themselves up for Disney+? The company was never originally known for its digital content but it has made strategic acquisitions in the past decade to set itself up for success in this growing market. Disney's first step was to expand its film library with acquisitions of Pixar, Lucas Films, and 21st Century Fox in 2006, 2012, and 2019 respectively.

All three of these acquisitions have been tremendously successful and key to establishing Disney's foothold in the digital film market. Disney then entered the SVOD market through the acquisition of Bamtech and the purchase of Hulu. Bamtech, originally the streaming service for Major League Baseball, acted as a platform for Disney's release of ESPN+, and provides the digital infrastructure for Disney+.

Furthermore, Hulu, an independent streaming service, gave Disney valuable expertise and experience in the SVOD market. Together, all of these strategic acquisitions have contributed to the formation and launch of Disney+.

Driver's For Success

Comprehensive Family Platform

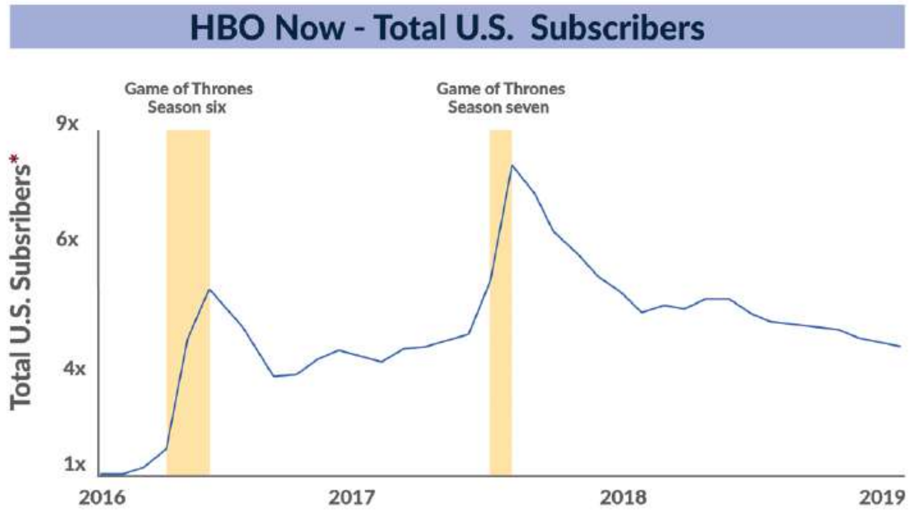
Disney+ differentiates itself from the competition by providing a family-oriented platform that consumers can buy in addition to their current on-demand service. With growing digital viewership, Generation Z represents a tremendous opportunity for Disney+ subscribership. In 2017, Netflix found a 61% increase in kids and family streaming numbers worldwide.[1] By segmenting themselves as a platform for younger viewers, Disney+ can take advantage of this rising trend.

Furthermore, the content featured on Disney+ appeals to individual family members: youth, teens, and adults. For example, Disney Channel, Disney Junior, and Pixar films primarily target viewers aged 2-16. On the other hand, Marvel's largest demographic are those between the ages of 16 – 20. Finally, Star Wars appeals to a wide variety of age groups. While most of these brands are specifically targeted towards younger demographics, brands like Star Wars and Marvel also have a strong following among adults, including parents. By providing content aligning with multiple age groups, Disney+ further cements its position as a comprehensive family platform. When looking at the younger generation, younger children make up a large portion of the population and are increasingly being exposed to SVOD services. In 2019, it was estimated that 40.66% of households had children under the age of 18 in the US.[2] Within this demographic, access to devices has significantly increased among children. According to a report done by Common Sense Media, 98% of children under the age of 8 live in houses with access to mobile device or a TV.[3] Coupled with the fact that in 2018, 68% of families were subscribed to at least one SVOD service, SVOD viewership among younger children will inevitably increase significantly in the coming years.[4] By focusing on developing content for the younger demographic, Disney+ will be able to effectively take advantage of these trends versus competitors.

Unparalleled Exclusive Content

As mentioned previously, Disney's content library is extensive, and their studio has had great success. Disney is the first film studio to make over $5 billion consecutively over three years. In 2016, Disney also broke the record for highest grossing year, generating $7.6 billion. This suggests box office success will be a key driver for Disney+ adoption. While Pixar and Lucas entertainment have been successful, Marvel has been the main driver for box office sales. Since the debut of Marvel's cinematic universe in 2008, Marvel has had at least one movie rank in the top 10 for box office sales every single year. Just this year, Avengers: Endgame became the fastest film to gross $2 billion. Looking into the future, Marvel will continue to be Disney's cash cow and produce results. Furthermore, even stronger than Marvel's box office success is their cultural impact. From challenging movie storytelling to popularizing end credit scenes, Marvel has made a significant impact on the film industry. Its 22 intertwined films have captivated moviegoers and have developed quite a following among audiences. Marvel does a great job of not only appealing to traditional comic fans but also introducing newcomers to the MCU.

Watching Marvel films has become a norm among today's moviegoers, and box office sales cement the MCU as being the most popular series in today's film industry. This type of brand loyalty is akin to that of TV shows and will drive subscriptions for Disney+. To further understand the value that Marvel adds to Disney+'s success, consider HBO Now and Game of Thrones. HBO Now is the streaming service that was released by HBO in 2015 and features programming available on the HBO platform. The platform's content is restricted to HBO, similar to Disney+. While not being at the top of the market, the main driver behind the platform's success has been Game of Thrones (GoT). Much like Marvel, GoT is widely watched by audiences and is one of the most popular television shows. When looking at HBO Now's subscription rates over the years, they jump significantly during the years in which Game of Thrones is featured. In 2017, subscriptions to HBO Now jumped up by 91% following the release of season 7.[5] This demonstrates the impact that even one successful franchise can have on subscription numbers. While not a direct comparison, Marvel and GoT command similar levels of viewership loyalty, with fans eager to be the first to watch upcoming productions. However, unlike GoT, Marvel is accompanied by other successful franchises produced under Pixar and Lucas Films, which will create sustained subscriber growth.



* Indexed to HBO Now Jan 2016 total subscribers (=1x)

Strong Brand Value

In a market filled with proven competitors, can Disney's brand command viewers to adopt Disney+? Disney's brand value will drive subscriber growth despite the number of competitors in the SVOD streaming market. The brand was ranked 14th in the world by Interbrand and its brand value in dollar amount has been increasing: it increased from $27.1B in 2004 to $39.8B in 2018. Disney's studio property, for example, has been a main driver behind the company's success, as Disney aggressively monetizes them through multiple channels. Take Frozen: in addition to its 1.3 billion USD gross at the box office, Disney has capitalized on the film's success by releasing merchandise, songs, an ice show, and books. Frozen merchandising sales alone were estimated to be around $1 billion, almost equalling box office sales. The strength of Disney's characters across multiple channels demonstrates Disney's universal appeal which translates to higher Disney+ subscribership. Disney fans are captivated by their characters and will be willing to pay additional monthly fees to add Disney+ to their SVOD lineup.

Furthermore, fans have already demonstrated demand for easily accessible Disney content. Looking at Disney's home video sales, they have greatly outperformed the home video market. While international physical home entertainment spending decreased by 36% from 2015 - 2018, Disney's home video sales have only decreased by a mere 3% across this period. This suggests that the Disney brand resonates strongly with its audience, and can generate sales within a declining market. Moreover, steady home video sales are indicative of the demand for on-demand Disney content. Coupled together, Disney+ will take advantage of an already existing demand for content, and further capitalize on its strong brand.

Impact of Disney+ Launch

All things considered, the timing for Disney+'s launch is perfect. After the launch of the platform, Disney + has garnered over 10 million subscribers in about a week. Within hours of launch, Netflix lost about 3% of its market share. The company's digital infrastructure, successful content library, and strong family brand are ripe to be capitalized on, especially when considering the increasing use of SVOD services. Disney once again has shown its ability to adapt and innovate in an ever changing market.

Entrepreneurship

Evercloak: The Startup Fighting Climate Change

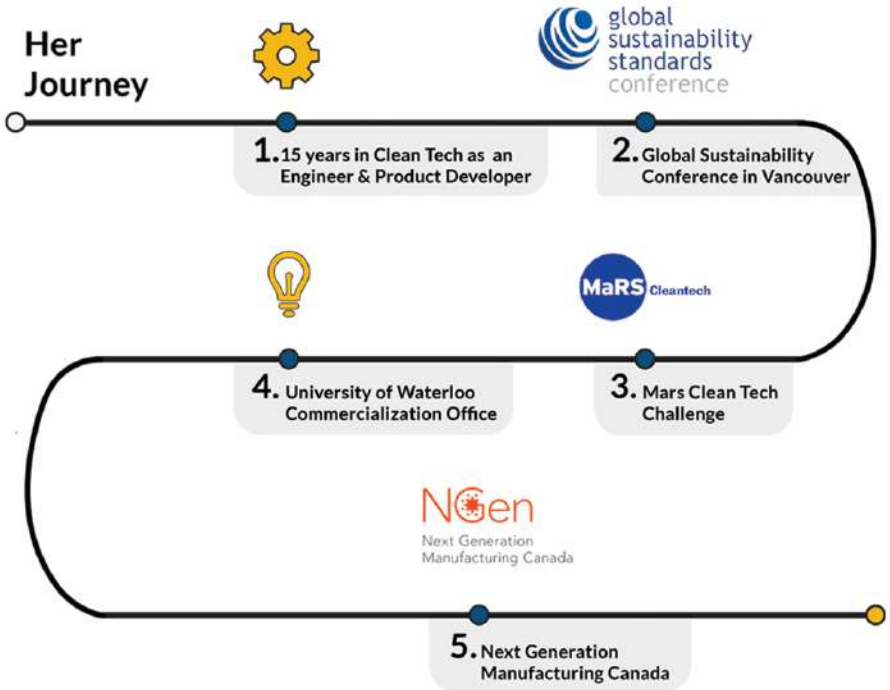
Wateroo Business Review December 2019

Inteviewing Evelyn Allen

Ever wondered what it's like to go from a technical background into the world of startups? Follow the story of Evelyn Allen, an engineer-turned-entrepreneur and her journey into the Cleantech Industry.

WBR: What pushed you to launch your own business?

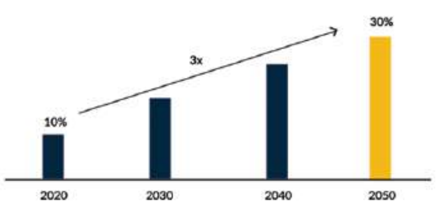
Evelyn: I have spent 15 years in the clean tech space, working as an engineer and product developer. When I went to a global sustainability conference in Vancouver, I heard keynote speakers that were so impressive that they inspired me to make more of an impact. It wasn't until I heard those motivational speakers that I thought to myself, "These women are really doing it and making a difference". Thus, I began looking for a project that would be the right fit. This was when I saw the MaRS Cleantech Challenge. The MaRS Cleantech Challenge is a program that supports women for 2.5 years to build a company. In the past, I always knew I wanted a start-up at some point, but I was just waiting to find the right technology and business opportunity. I worked with lots of big companies, small companies and start-ups to get a good lay of the land about how to effectively move something forward. The competition was meant for women innovators, but at the time I did not have a technology of my own, so I contacted MaRS to see if they were willing to support somebody who would license a technology. So, I went to the UW Commercialization Office and asked them, "would you support me in this?". I was working at their office of research at the time, which worked out in my favour. They opened up their books and said, "pick one technology from the intellectual property portfolio, and start a company with it." After scanning 5 out of 6 potential technologies, 3 were of particular interest to me. I decided on Evercloak because there were a lot of opportunities for it in the cleantech space, so we applied it to a real life scenario. Along with co-founder Dr. Michael Pope, we were successful in turning Evercloak into a company by licensing the technology with the University of Waterloo.



WBR: You are working towards tackling environmental issues using your unique technology. How do you think other businesses can implement 'Corporate Social Responsibility' into their business models to maximize societal benefit?

Evelyn: The initial use case of our technology is to significantly reduce greenhouse gas emitted by the air conditioning market. Currently, 10% of global greenhouse gas emissions are from air conditioning and this percentage is expected to triple by 2050. So our aim with our first use case is to develop nanomembranes that can remove moisture from the air and essentially remove the energy required to cool air by removing the humidity first. With that, we have made a significant impact by reducing our energy use by almost 50%.

% OF GLOBAL GREENHOUSE GAS EMISSIONS FROM AIR CONDITIONING



WBR: Which environmental issues do you plan to tackle with the implementation of this technology?

Evelyn: We're looking to significantly reduce the energy used by air conditioning units through developing a membrane that efficiently removes moisture from the air. To cool air, air conditioning systems have to lower air temperature, and remove water vapour in the air. The current method that air conditioners use to remove water vapour is by condensing it, which makes it a very energy intensive process. The air conditioners have to overcool the air in order to remove the water vapour in cases where there is a lot of humidity. Thus, our technology has been able to resolve this problem by dehumidifying the air before it's cooled, significantly decreasing the energy usage.

WBR: Where do you first plan on applying your nanofilm technology?

Evelyn: We have a pilot project with a large North American power producer. They're helping us to validate our membrane material for this use case. Our first application will be in a power plant situation where humidity is a big challenge as it causes corrosion and mould. Thus, there are a lot of industrial applications that are interested in an energy efficient way to remove moisture from their facilities. Our initial feature market is to target the industrial and commercial dehumidification space and then eventually tie it into residential applications through air conditioning. Air purification only removes water vapour from air and does not remove any pollutants, so there is lots of interest in the material we are making for desalination water treatment applications.

WBR: How has your 15 years of experience in the design of industrial waste-water treatment systems helped you in launching Evercloak?

Evelyn: I have had broad experiences in engineering consulting, as I have worked in an engineering company building and designing manufacturing systems. My experiences in fund innovations have also helped me launch Evercloak. My diverse experiences have allowed me to rapidly move this company forward because I know how things work and the key processes associated with those operations. My experience in engineering consulting taught me how to engage with clients, as well.

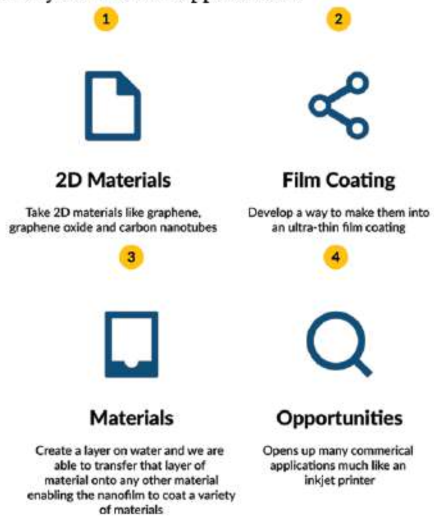
Go-To Market Strategy

WBR: How has MaRS helped Evercloak's growth and success?

Evelyn: I would not be here without MaRS. MaRS has provided me with the opportunity to lead and develop a company for 2 and a half years. There are 6 of us in a cohort and we all get customized programming in all the fields that we need help in every quarter. Examples of programming include; accounting, sales, professional development, media training, non-verbal communication, manufacturing courses, and so on. Mentorship is also among the various supports. They essentially help us with everything we need to know as a CEO.

WBR: What was the process for producing your nanofilm material and ensuring its physical properties?

Evelyn: Our technology that we are commercializing is a platform technology. It is almost like an inkjet printer where we can take 2D materials like graphene, graphene oxide and carbon nanotubes that already exist and develop a way to make them into an ultra-thin film coating. Right now, there is no other way to make these thin film coatings in large areas and at low costs. This is our core technology. It's similar to an inkjet printer printing on water since we create a layer on water and we are able to transfer that layer of material onto any other material. The physical properties of the nanofilm naturally come with the materials with which we are using to manufacture the nanofilm. All we are doing is enabling the nanofilm to coat a variety of materials which is currently not possible and opens up many commercial applications.



WBR: If you are crowned the winner of the Women in cleantech challenge, what will you use the prize money for?

Evelyn: The prize money will definitely help to scale the company and advance the technology further to secure follow-up funding. In a year to a year and a half from now, we will need the support of a bigger demonstration system to show potential clients, partners and investors that our company is ready to take things to the next level and secure follow-on growth funding from investors.

WBR: Do you have any advice that you would give to students at the University of Waterloo with an interest in entrepreneurship?

Evelyn: It definitely depends on the type of person and background. My network really helped me to succeed. I have received so much help from so many different people to get to where I am right now. This would not have been possible without my strong network that I already built from getting out and meeting new people, as you never know when you can use that network.

WBR: What advice would you give young women interested in starting their own entrepreneurial venture?

Evelyn: I would say to just go for it. If you're interested in something, go and do it and know that there is nobody else better to do it than you. Ask yourself, "Why not me? Why not you? Why shouldn't you?" Just go out and do what you're passionate about.

To learn more about the Evercloak and Evelyn, you can visit their website at https://www.evercloak.com.

Entrepreneurship

The Emergence & Implications of 5G Mobile Technology

University of Waterloo
Student Venture Fund
Tech Deep Dive

December 2019

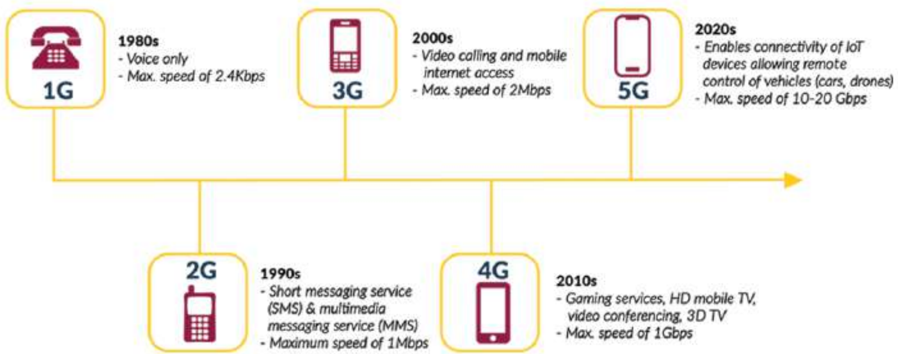
Introduction

On April 10, 2019, Canada's largest wireless companies competed against each other at Canada's 5G Spectrum Auction. Being the first 5G auction, the companies sought out to acquire spectrum licenses from the federal government which will enable 5G deployment in urban, suburban and rural communities. Collectively, wireless operators including Rogers, Telus, and Freedom mobile spent a total of $3.47 B to purchase the airwaves needed to power next-generation 5G networks.[14]

Investments into 5G technology are becoming an increasingly prevalent pattern as operators, equipment manufacturers, and device manufacturers alike attempt to capitalize on the expected mass adoption by consumers. But what exactly is 5G technology? How did it start, how does it work, and where will it take us?

History

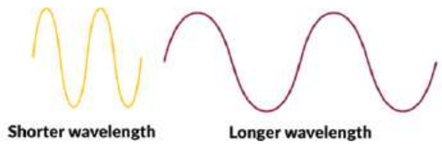
In the 1980s, the first generation of wireless cellular technology emerged, and has been developing ever since. What is a generation, and how did we get to number five of them? The graphic below depicts the journey from 1G to the now developing 5G over the course of 40 years.[5]



Difference

You probably have a mobile device supported on a 4G network. What is the difference between 4G and 5G?

In a sense, cell phones can be considered two-way radios. For example, when making a call, your voice is converted into an electrical signal that is transmitted to the nearest cell tower via radio waves, bounced through a network of cell towers, to finally reach the individual you are contacting. The same happens when you send other forms of data, such as photos and videos.



Since the 5G network has 5 - 50x shorter wavelengths than its predecessor, users are able to send more data in a shorter time period. Contrarily, since these higher frequency signals cannot travel as far, more infrastructure is needed to boost signals where 5G is offered.

Capabilities

You might be thinking, "My phone works pretty well. How much better can 5G get?" There are 3 main benefits to 5G technology: faster speeds, lower latency, and increased connectivity.

5G will lower latency. Latency is the response time between a user request and action being taken by a simple function, application, or machine. 5G's capacity for reduced latency will decrease lag and improve streaming applications like online gaming, video calling, and interactive live sports.

5G will increase internet speed and connectivity. With 5G, downloading an HD movie takes seconds versus 6 minutes for 4G LTE.[13] Furthermore, the greater capacity offered by 5G will allow support for more devices and more data-intensive tasks, such as "Internet of Things" devices in smart cities, autonomous vehicles, smart grid management, and remote healthcare. That is, these devices contain both sensors that collect data, and software to upload data to the cloud. The software would then able able to directly exchange data with other connected devices, and allow for analytics and insights to be generated from the data produced.[11]

Impact

Furthermore, 5G is anticipated to have a significant impact on our day-to-day lives in 3 ways:

5G will increase data traffic. 5G will create exponential growth in data traffic, allowing for the increasing adoption of HD music and video streaming and cloud-native applications. According to Cisco, a multinational IT and networking conglomerate, mobile data usage growth alone is expected to increase from 7 to 49 Exabytes (1 Exabyte = 1,048,576 TB) by 2021, representing a 47% CAGR from 2016 to 2021.[6]

5G will accelerate the internet of things. Currently, all four major US mobile operators are involved with smart city projects ranging from public transit, water management, and street lighting. Along with smart cities, projects related to smart homes and smart buildings are also being taken on, which will increase the demand for the 5G technology due to low latency.

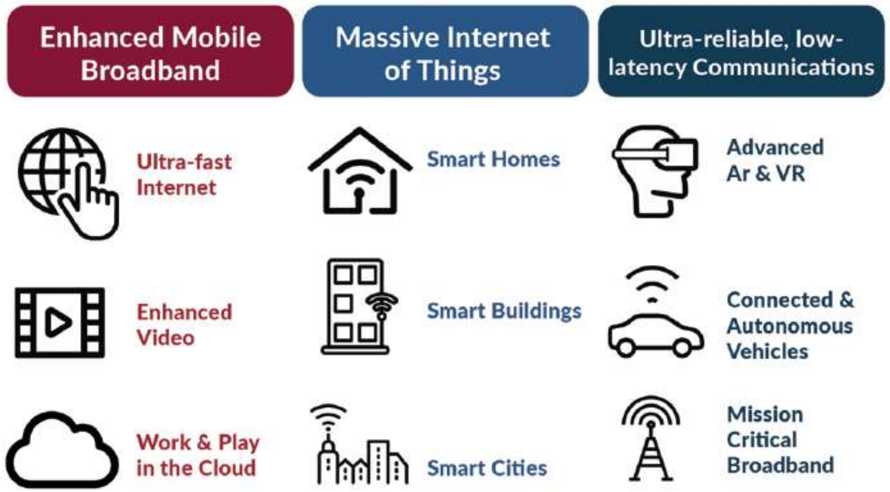
5G will improve robotics surgery. 5G technology will allow doctors to use VR goggles to perform surgery remotely through instant haptic feedback. More recently, Ericsson, a Swedish telecommunications company, and King's College in London showcased this application at the Mobile World Congress in Barcelona.[8] This will redefine the way surgeries are conducted by robotics, allowing patients to access expertise of specialized surgeons in different parts of the world, making physical distance irrelevant.

5G will make self driving cars faster and safer. Self-driving cars rely on the data generated by hundreds of sensors positioned throughout the vehicle. With existing 4G technology, handling, processing, and analysis of this data is not currently possible, due to the fact that these systems need to mimic the timing of human reflexes. 5G would ameliorate this issue due to its low latency and high speed in transferring large data.[2]

Concerns

5G has far reaching capabilities, and is slated to have a significant positive impact on consumers and companies alike. However, there are 2 main issues: political tensions, and potential health effects.

5G has sparked political tensions. In May 2019, President Trump banned US tech companies from using telecom equipment that posed a threat to national security. This led to the Commerce Department placing Huawei on a trade blacklist, causing sales of

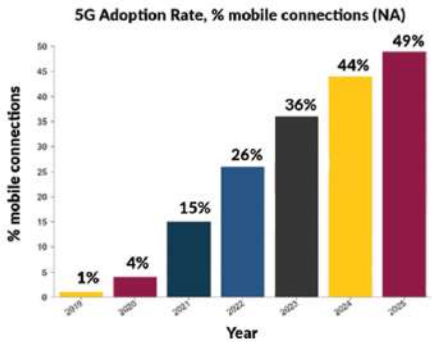


of U.S.-made goods to Huawei to be restricted.[9] Furthermore, telecom giants like Nokia and Ericsson may be forced to move production outside of China in order to continue providing equipment to the U.S. In fact, Google recently announced the movement of its Pixel smartphone production from China to Vietnam to avoid the looming concerns of US-China trade hostilities.[10]

5G has the potential for adverse health effects. Due to 5G networks' use of higher frequency fields, medical professionals are concerned about the possibility of human tissue penetration.[16] Depending on the exposure duration, frequency, and temperature increase, this could lead to heat stroke and burns. Similarly, the WHO IARC[12], an agency conducting research into the causes of human cancer, the radiofrequency electromagnetic fields associated with 5G networks has been classified as a potential human carcinogen.[3] However, the large majority of mainstream scientists continue to see no conclusive evidence of harm from cell phone radio waves. David Robert Grimes, a cancer researcher at the University of Oxford, suggests, "If phones are linked to cancer, we'd expect to see a marked uptick. Yet we do not."[4]

Conclusion

Although 5G will not replace 4G immediately due to headwinds including infrastructure requirements and health concerns, its adoption is expected to grow significantly over time. By 2025, 49% of North American mobile connections are expected to be running on 5G networks, a significant increase from 1% in 2019.[1]



In conclusion, as a result of exponentially growing investments from telecom enterprises, 5G is an incredibly pervasive technology slated to transform Canadian's way of living: from faster downloads, to IOT-connected households, to improved robotic surgery.

UNIVERSITY OF WATERLOO
STUDENT VENTURE FUND

The Student Venture Fund ("SVF") at the University of Waterloo provides hands-on training in venture capital investing with guidance from industry experts and supervision by faculty members. Students have the opportunity to make investment recommendations by conducting financial and commercial due diligence on product-market fit, growth potential, and management team.

The SVF Technology Review is a thought leadership initiative allowing SVF members to share our insights on emerging technologies and facilitate cross-faculty discussions on entrepreneurship, technology, and finance.

Business Strategy

SoftBank's Vision Fund: A Cautionary Tale for All Venture Capital Firms

Abhinav Dholepat

December 2019

In May 2017, the Tokyo-based telecom company, SoftBank, launched its Vision Fund. Unique in its nature, this fund was able to raise $100 billion to be used to invest in technology startups.

For comparison's sake, the sum of all American venture capital deals closed in 2017 amounted to $84.2 billion. Despite its success, the Vision Fund's aggressive investment techniques caused massive inflation in the valuations of startups, particularly with its' most popular investment, WeWork, and has negatively impacted the future of investments into startups.

SoftBank

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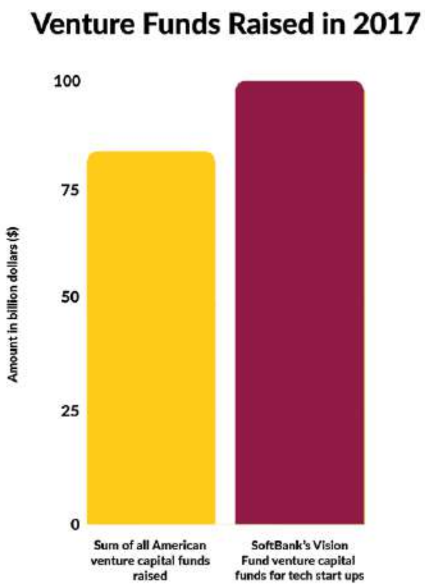


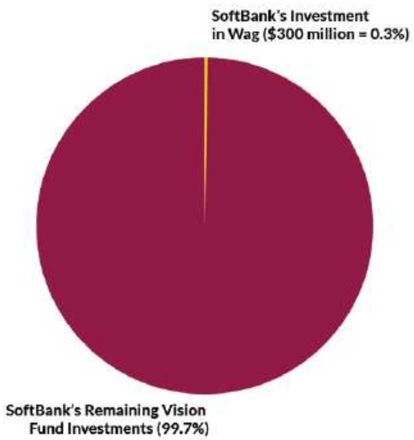
SoftBank Investment Strategy: Industry Impact

Most funds tend to follow a similar investment strategy to achieve a high rate of return: identify potentially successful startups and invest to ensure a highly diversified portfolio. However, due to the vast amounts of capital at its disposal, the Vision Fund was able to alter this widely known strategy in their favour.

The sheer size of the fund enabled the Vision Fund to pump money into startups without performing proper due diligence. From their perspective, the number of their investments was more significant than the identifiable stability, success, and accurate valuation of a startup. Quantity over quality. As long as one of their investments managed to obtain a high valuation post-IPO, the venture fund would generate returns.

As an example, in January 2018, the Vision Fund invested in a dog-walking app called Wag. According to Techcrunch, at the time there were a handful of other investors interested. However, all of them dropped out after SoftBank invested over $300 million. At the time, Wags had raised $191.5 million over the course of five funding rounds. Softbank had pushed out competing venture funds through the sheer size of their funding offer. The Vision Fund's investment into Wag only represented 0.3% of its portfolio, demonstrating that the loss of this investment would be insignificant. On the other hand, this immediate raise in capital resulted in one of Wag's competitors, being forced to instantaneously raise $125 million, which it would not have had to do otherwise.

SoftBank's Vision Fund Investment Composition



The Vision Fund's large inflow of capital within the sector caused a shift in priorities within the competitive landscape. With a large disparity of capital among competitors, product innovation took a backseat to the pursuit of funding. Success was no longer dependent on a business' strategy, or its product quality, but instead on a firm's access to capital.

SoftBank's intent behind this capital-heavy investment was to drive out competitors and establish a monopoly in the dog-walking industry. Unfortunately for SoftBank, Wag has been experiencing a number of issues including: maintaining a strong client base, and developing effective customer service. The company serves as an example of the flaws that arise with attempting to hijack an industry with nothing but the use of a chequebook.

In addition to the impact the Vision Fund has had on the dog-walking industry, it has also had a larger scale impact on the entire technology startup landscape, with a recent example being WeWork.

Case Study: WeWork

Vision Fund's investment strategy has been flawed due to the faulty due diligence taken towards the actual startups it invests in. A clear example of this is displayed by SoftBank's most popular investment, WeWork, an office space leasing company that was worth close to $47 billion in September, and is now worth about $12 billion.

During the due diligence process, the fund's analysts ignored numerous red flags about its management, especially surrounding Adam Neumann, the co-founder and former CEO of WeWork.

This massive collapse in WeWork's value was brought on by a myriad of problems within WeWork's business, starting with the foundation set by the eccentric ex-CEO. One example of Neumann's contributory behaviour to the downfall of WeWork is demonstrated by his comment, "I need to have the biggest valuation I can, because when countries are shooting at each other, I want them to come to me."

Along with developing his business on a fundamentally flawed vision that glorifies high valuation over effective business tactics, Neumann consistently engaged in questionable behaviour. The most notable instance of this is shown by his choice to trademark the word "we," followed by changing WeWork's name to "We Company", and pay himself close to $6 million for the company's name change. Fortunately, after criticism, Neumann was forced to pay back the money. Neumann's unusual decision making was made known to the public at the launch of WeWork's IPO, but known by early-stage investors beforehand.

WeWork also faced publicised criticisms on their accounting policies, which is often an issue with startups pre and post-IPO. Any company in the US that wants to open its company to outside investors must follow Generally Accepted Accounting Principles (GAAP). However, if a company is private, or pre-IPO, this is not the case. In the case of WeWork, Alison Griswold of Quartz states, "WeWork devised to measure net income before not only interest, taxes, depreciation, and amortization, but also 'building-and community-level operating expenses,' a category that includes rent and tenancy expenses, utilities, internet, the salaries of building staff, and the cost of building amenities." While disclosing to bond investors, WeWork reported their "community-adjusted EBITDA" to be positive $233 million, while earnings would conventionally be reported at negative $769 million. This allowed WeWork to escape early scrutiny as it was projecting early profitability by using "creative accounting."

"WeWork escaped early scrutiny as it was projecting early profitability by using 'creative accounting'."

These red flags were overlooked by the Vision Fund. When conversations between Masayoshi Son, the head of SoftBank, and WeWork CEO Adam Neumann began, both of their intentions were vividly displayed by an initial conversation. According to Forbes, Masayoshi tells Neumann "not to be proud that WeWork [is] growing organically without a large sales force or spending big marketing dollars." He says to make WeWork, "ten times bigger than [the] original plan," and clearly states he believes the company can be worth a few hundred billion dollars. The combination of Adam Neumann's eccentricities and the deluded support of Masayoshi's funding offers are direct causes for the failure of WeWork as a startup.

Impact of SoftBank's Vision Fund

Vision Fund's investments into Wag and WeWork are clear examples of the capital-heavy fund's tendency to neglect traditional funding strategies in the technology startup landscape. WeWork is currently being investigated by the Securities and Exchange Commission for possible violations of its rules. Similarly, the Vision Fund is attempting to sell back their initial investment in Wag. As a result, the fund has created doubt about whether or not many well-known startup businesses deserve their high valuations.

As venture capital becomes more and more popular as a means through which technology startups raise funds, venture capital firms should be placed under greater scrutiny, whether in startup valuation, or in the accompanying due diligence practices performed during the investment process.

Global Affairs

The Middle Eastern Cold War

The Spark of the Next Recession?

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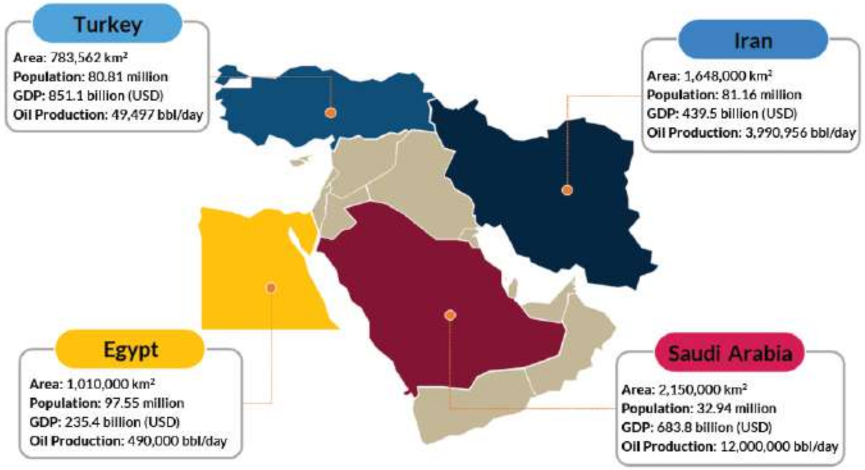
Introduction

Today's globalized economy has created an environment of net dependency. The costs of war have significant consequences, not only for nations engaging in conflicts, but for its trading partners as well. This impact was seen most predominantly in the 2008 recession, when a housing crisis in the US had rampant spillover effects on the global economy. Analysts have termed the current economic scenario a strong "recession climate" based on projections of business cycles and bond market yields. But if everyone expects a recession, why isn't it here? Recessions commonly begin where fear of economic downturn causes investors to limit spending and creditors to raise payments.



According to academia, two probable sources of economic turmoil include political incompatibility, and overvaluation bubbles. The US-China trade conflict and the WeWork incidents are notable examples. However, global oil supply reliability is often excluded from public discourse. The decade of stagflation following the 1973 oil supply fluctuations is a stark reminder of oil's importance, and also demonstrates the effects oil can have on global geopolitical forces. The proxy war between Iran and Saudi Arabia sparked as a result of ideological differences on the Shia-Sunni sectarian divide is a noteworthy recent demonstration of the instability experienced in the Middle East. Thus, socio-political forces controlling oil production also play a noteworthy role in molding the global energy ecosystem.

Importance of Oil

Why is oil important? The fossil fuel industry is the most valuable industry in history by production, drawing value from its reach and resilience. From plastics to transportation, from automation to energy, the global industrial revolution wouldn't have occurred at its pace without oil and its numerous by-products. Oil's omnipresence in global supply chains also stems from the ease with which it can be transported relative to other resources. For example, natural gas has been recommended as an alternative under UN Sustainability Goals due to its more carbon-neutral nature, but due to its high cost barriers, industries continue to rely on oil. Oil's prevalence is highly disruptive as price increases to oil directly translate to spikes in global production costs, an issue affecting the competitiveness of many industries.

US Oil Trade

To understand oil's importance in US foreign policy, an understanding of long-standing oil alliances is fundamental. The main threat to the current supply chain is the proxy war between Iran and Saudi Arabia. A proxy war refers to a state of military conflict exercised not directly by any state actors but instead via regional non-state organizations to further ideological interests. Iran and Saudi Arabia's stand-off on numerous interlinked regional turmoils affects not only their oil exporting capabilities but also the US's core oil exposure. But, is the US truly dependent on Middle Eastern oil? Contrary to general belief, the US is a net exporter of oil, surpassing nations including Saudi Arabia and Russia in oil production. However, oil markets are geographically-driven due to distribution and transportation costs. Since not every country can afford to buy from the US, several suppliers are necessary to sustain the global demand. Furthermore, given the market share that Middle Eastern countries control, their supply keeps prices in check, as was confirmed by the price surges in the aftermath of September's drone attacks on Saudi Arabia's state-owned production facilities. Hence, even if the US is able to thrive on its own oil supply, its diversified economic interests mandates that its key partners and allies do not lose vital supply chains tied to the Middle East. Similarly, China's rampant economic production lies vested in Iranian and Saudi Arabian oil production, establishing the regional oil's delicate geopolitical importance.

Political Instability in the Middle East

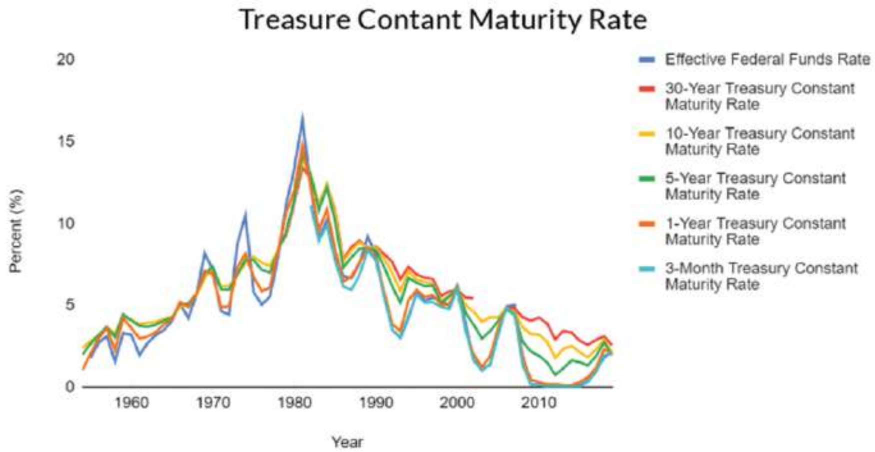
An important facet of this discussion is the role that instability across oil-supplying nations in the Middle East play in leveraging national resources. Three notable incidents of political unrest include the 1979 Iranian revolution, the Yemen Houthi insurgency, and the United States' arm deal with Saudi Arabia.

The House of Pahlavi (Iran's former royal family), was overthrown in the 1979 revolution, causing a shift in policy towards isolationism. This shift had catastrophic implications on access to Iranian oil supply by constraining distribution and production channels.

Further instances of instability arise from the exacerbation of existing conflicts across the region, particularly Syria and Yemen. The decade-long Yemen Houthi insurgency, along with its accusations of Iranian involvement, has stoked a Saudi-allied response, embroiling the country into a civil war spiral. The Syrian front has been pronounced by the rise of Islamic State, and Iranian support for the Assad government in the wake of public uprisings. While the United Nations Security Council (UNSC) did attempt to dissipate conflict through landmark policies enshrined in UNSC Resolutions 2159 (2014) and 2239 (2015), the sanctions failed to yield substantial effect. This failure was particularly pronounced, since major Iranian oil importers like India, Turkey, and China continued to tap into the existing oil supplies, nullifying intended repercussions.

Saudi Arabia and the United States have long shared a symbiotic relationship born from mutual objectives in the Middle East, including the Israel conflict, and Iran's position in the status quo. Evidenced by the $110B arms deal to help Saudi Arabia purchase US arms in 2017, the United States has asserted its motives in regional geopolitics. In spite of international criticism of US support for Saudi Arabia, mainly concerning the latter's poor human rights record and hostile political environment to curb free expression, the US remains adamant on asserting the vitality of Saudi Arabia in establishing peace across the region's conflicts. This relationship has inevitably affected the proxy war, with several non-state actors being accused of "harbouring violence", from attacks on oil tankers in the Strait of Hormuz, drones near Persian Gulf, and rebel forces on the Yemen border.

The recent drone attack on Aramco, Saudi Arabia's largest state-owned oil producer, was the largest sudden disruption on the International oil supply since the Gulf War. With Aramco responsible for over 5% of global oil, prices briefly peaked in commodi-



ty markets before production was reinitiated. This orchestrated a potent demonstration of the political and economic structural power that independent actors in the Middle East yield on larger global processes, as demonstrated by the Yom Kippur War.

Yom Kippur and the Decade of Stagflation

The Yom Kippur War in 1973 between Israel and the Arab coalition led by Egypt for control over the territories of Sinai and Golan led to blockades of major supply routes due to disputes over the Suez Canal, effectively ceasing oil distribution. In combination with the fall of Bretton Woods, a system of procedures for major economies to ensure their economic stability, poor investor confidence and rising production costs heralded a decade of stagflation, characterized by high unemployment and high inflation.

Distortions in commodity markets extended the effects of stagflation across major Western economies, with sudden peaks in treasury rates, as seen above, and a quarterly negative GDP growth over 1973-1975 causing the UK filing for bailout with International Monetary Fund in 1976. The price spike was detrimental to dependent industries including shipping, logging and mining, with the Swedish ship-building industry losing over 3 billion Swedish Krona in 1974. As recovery from this energy crisis lasting over 14 quarters, several nations have come to realize the influence of Middle Eastern oil on national policy-building.

Conclusion

It is unequivocally imperative to recognize a distinction between perceived and actual costs of the Middle Eastern war, with the latter based primarily on probable disastrous economic consequences that can ensue due to disruptions to oil. With heightened political instability across the region, countries must attempt to divest their economic interest away from geopolitics in order to distance themselves from its instability. The attack on Aramco, the rise of Iran's nuclear program, and guerilla proxy outbreaks serve to aggregate underlying conflicts, being a formidable reminder that intricately tying global economics to political friction is a recipe for recessionary disaster. In addition, while alleged religious incoherence continues to feed unrest, decoupling dependency on the region's oil is our only hope to normalize commodity volatility and, in effect, at curbing the next energy crisis.

Entrepreneurship

Lunaria: Advocating for Corporate Diversity and Inclusion

Waterloo Business Review
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Interviewing Cassie Myers

Ever wondered about what it's like to launch your own start-up as a student? What problems are worth solving and what is the best place to start? Learn about the adventure that took Cassie from a student to a student entrepreneur.

WBR: A lot of startups build their businesses around a problem. For Lunaria, what is that problem and how did you come to discover it?

Cassie: Lunaria solves the problem of diversity and inclusion in all spaces of the world by reframing the way people imagine diversity and inclusion.

Right now, companies increasingly want to integrate diversity and inclusion (D&I) into their culture, but they are not taking a customized approach to their own needs. For example, something that is very common at the moment is D&I workshops and trainings. Lunaria encourages people to take a data-driven approach to diversity and inclusion by surveying their employees, tracking demographic information and determining their needs and investing in those needs.

Lunaria equips companies with the information they need to choose the right diversity and inclusion initiatives to invest in. We then continuously evaluate their next steps, next goals, and the effectiveness of their chosen initiatives.

WBR: What prompted the idea of wanting to work in D&I and what led you to the current solution you are working in now?

Cassie: Lunaria has pivoted quite a bit since its inception. We initially started off working with nonprofits by performing impact evaluations. However, we found that we were getting asked to do more evaluations that focused on more than the direct outcomes of a program.

If we were hired to evaluate a STEM program, we would measure not only the interest garnered and program effectiveness, but also the diversity of its participants for example. And so now, what we do is we work with our customers on finding different ways to measure the impact of diversity and inclusion; we measure with a data-driven approach on numerous metrics ranging from the impact of D&I initiatives to how people feel when accessing resources.

The D&I industry is evolving out of the non-profit space too, as growing compliance requirements and new government regulations are being put in place which encourage companies to invest in D&I.

Lunaria's Approach to Integrate Diversity and Inclusion.

WBR: What kind of role does D&I play in an organization?

Cassie: Ideally, D&I should be integrated into all levels of decision-making at a company: from departments, to hiring, recruiting, management, to day-to-day operations. There have been many studies that demonstrate how beneficial D&I is in business; for example, diverse and inclusive companies have been linked to higher profits due to higher levels of cooperation between companies, higher retention, and higher hiring rates. So it is really about integrating D&I into the culture of companies at all levels and that is really fun. Through our diversity audit where we look at anything from hiring practices, to asset management practices and how our customers evaluate their suppliers, D&I can be ingrained in every aspect of a company.

WBR: What kind of impact has the data-driven approach had on companies?

Cassie: I think one of the biggest things is that a lot of companies don't know where to start or don't know what's working. So through our data-driven approach, it is really powerful to be able to show management how their investment has changed peoples lives—whether it is a workshop, training, or artifacts that make people feel like they belong. Providing anonymity in the service allows employers to get raw responses from their employees that can be telling to the real situation happening within their firm.

WBR: How has your involvement as an Entrepreneur in Residence helped you grow your business?

My experience at Waterloo has definitely helped. I think we're really lucky to be in a community like Waterloo which has so many entrepreneurial resources and opportunities to advance your skillset, improve your ideas and connect with other entrepreneurs here that have gone through similar things. I am really grateful to be a part of this type of ecosystem right now. We are currently in the Jump Start program with the University of Waterloo and the Accelerator Centre. Through these programs, we get the opportunity to engage with mentors and other companies which has been extremely helpful.

WBR: What was the biggest technical challenge when it came to launching your business?

Cassie: In the beginning, as a non-technical founder, I found the technical side of things to be the challenge. More recently, I am finding that technical skills is getting easier to bridge because we can surround ourselves with more technically competent people, and taking on classes and projects to fill in our knowledge. But now as we grow and expand our team, the challenge that I am trying to work on is how we are going to grow our own culture. That is, how we can share a vision across different groups of people and how we can grow fast yet still make everyone feel like they are a part of that founding idea.

WBR: What role do you think diversity and inclusion will play in the years to come?

Cassie: With D&I, we're seeing growth in popularity more than ever before. Now it's really exciting because we're looking at more intersectionality within identities, race, culture, accessibility, religion, education and socioeconomic background. In this age, we have a greater diversity of people working in the same space than ever before; some people are physically there and some people are there virtually. As companies become more diverse, the question of how do you make a space for everyone to thrive has become a more prevalent question.

Changes in government policy are good indicators of trends in society that may be here to stay. As more legislation is being put forward, it is evident that more responsibility is being expected on the side of the employer. As such, we can observe the longevity of D&I and the benefit of investing in it now and taking it into the future. D&I is continuous, so actions taken in 2019 may not carry you through to 2020 and beyond. D&I is something that should be with your company on an ongoing basis and should be integrated within your company culture.

I think it's going to be really exciting to see how the changes in policy and different populations working together will drive decisions.

WBR: Advice for entrepeneurs in work and in life?

Cassie: The first thing I would say is to not wait. I think that if I had not gone to Waterloo, I probably wouldn't have started a company. Waterloo truly has so many resources for students to try ideas. People in the region of Waterloo as a community are very accepting. This is a community where people are very open and welcoming: if I look up to someone who might be a CEO of a company down the road, I can reach out for advice and have a 10-minute conversation with them.

Furthermore, there are many courses where projects can expand into a business; from the engineering capstones to research-based courses, there are a lot of ways to imagine your assignments in a way that could be turned into a startup business.

To learn more about Lunaria and Cassie, you can visit their website at https://lunariasolutions.com.

Business Strategy

Forever 21: The Failed American Dream

Mariam Osman

December 2019

Introduction

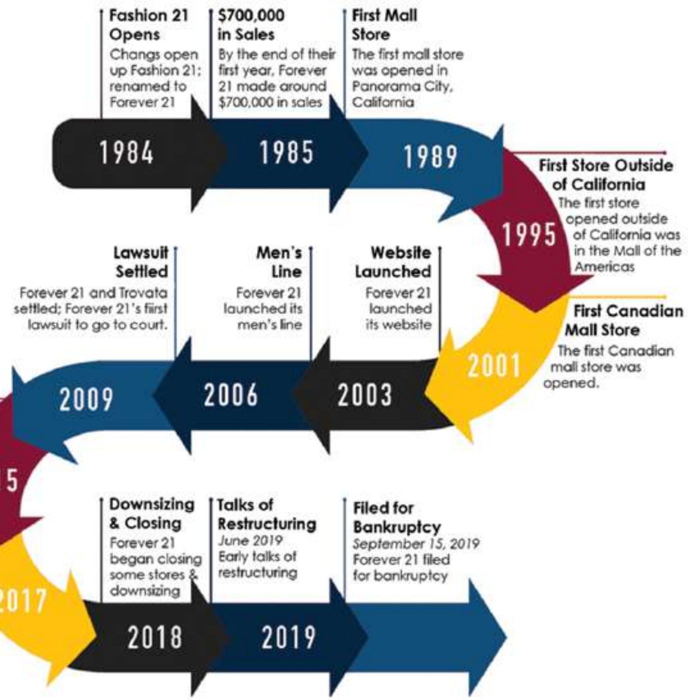
The American dream is at the heart of Forever 21. Created by husband-and-wife duo Do Won and Jin Sook Chang, the couple emigrated from South Korea to Los Angeles in 1981 in hopes of a better future. By 1984, the Changs opened up the first Forever 21, then known as Fashion21 in California, making $700,000 USD in sales in its first year. By 1989, the first mall store was opened, and the company went international in 2001 by opening their first Canadian retail store.

At its peak, Forever 21 was generating 4.4B in revenue with over 700 stores worldwide; the Changs had gone from working class immigrants, to becoming billionaires.[1] They had achieved the American dream.

However, all was brought to a halt with their recent bankruptcy filing. How did this American dream turn into a nightmare? What led Forever21 to file for bankruptcy in a market that is still heavily reliant on fast fashion brands? It is evident that Forever 21's business strategy, marketing plan, and its focus on the "now" is the ultimate reason they might not have a "future".

Market

Fast fashion is the rapid production of inexpensive clothing to reflect the latest trends. Many fast fashion brands have been accused of exploiting workers from third world countries to sustain this business model. Today's shoppers are increasingly moving away from fast fashion to sustainable clothing, a key contributor to Forever 21's 44-sto



-re shut-down and eventual bankruptcy. Although sustainability and the green consumer are rising trends, Forever 21's fast fashion competitors such as Fashion Nova, Wish, and Zaful do not face the same solvency issues of the former market leader. Therefore, even with changing consumer tastes, Forever 21 could have avoided its fate. If the problem isn't with the market, could Forever 21's strategy be at fault?

Business Strategy

It is difficult to identify exactly who Forever 21 is targeted towards, especially when looking at its product mix. Forever 21 carries clothing for women, men and children of all sizes, and have also ventured into sportswear, swimwear and undergarments.[2] In addition, they carry a large assortment of additional product lines such as accessories, footwear, skincare and beauty supplies. The only thing Forever 21 lacked, however, was one particular target market. Forever 21's strategy was to saturate as many consumer segments as possible with a multitude of products, facilitated by cheap production and distribution costs.

Furthermore, surrounding market positioning, Forever 21 focused its efforts on establishing a presence through physical stores in shopping centres and outlet malls. 3 years prior to its bankruptcy filing, Forever 21 opened 600 of their 700 outlets, representing an annual growth rate of 91%.[3] This strategy was unsustainably aggressive relative to H&M's strategy of steady growth, which has allowed it to establish 5000 stores at an annual growth rate of 5%.[4]

Forever 21's brand presence, emphasizing physical stores, however, may have diverted their attention from capturing the growing e-commerce market. For example, Forever 21 did not focus on marketing efforts through advertising campaigns such as TV advertising space or celebrity collaborations. Management assumed the physical presence of their outlets was sufficient marketing: another justification for their slow transition.[5]

Finally, Forever 21 operates using a centralized management. Being a private company with 99% equity owned by the Chang family, only a select number of individuals had the power to make impactful decisions. With only the Chang family as central management, there was a lack of outside parties to object to their standard strategy: focus on the now and maximize profits in the short run. In an interview with CNN, Do Won Chang explained that being a private company has helped in making decisions extremely quickly.[6] Similarly, without external insight, there were no outside consultations from industry experts who could have provided them with alternative ideas for longstanding success.

What Went Wrong

Their Target Market is the Market

Forever 21 was initially targeted for consumers in their 20s, who as Do Won Chang later explained were for "Old people [who] wanted to be 21 again, and young people [who] wanted to be 21 forever".[7] This suggests that their target market was not defined by a particular demographic, but rather an experience. To accomplish this, Forever 21 focused on producing clothing according to current fashion trends. This allowed them to cater towards a large demographic as all ages looked to buy the latest trend. At the time, this worked quite successfully, allowing Forever 21 to capture a large audience with one style. But as trends went, so did their appeal. With no specific target market in mind, Forever 21's resources were put towards replicating trends with a rapid pace, and subsequently, they lacked in-depth knowledge of a particular demographic. Their lack of a target market became apparent when retailers who knew more about specific demographics created products specifically to fit their niche. Coupled with industry headwinds, consumers left to look for more tailored customer experiences.

As a result, their expansive product mix led them to stray away from their original business model, trendy and affordable clothing, and instead spread themselves thin across many different demographics. Although this strategy of "demographic diversification" proved profitable until 2015, it did not prove for brand longevity, especially as consumer tastes changed.[8] When they expanded their product lines to include makeup, home décor, men's and children's clothing, Forever 21 struggled to maintain the allure that made them successful.

Compounded by Forever 21's relatively poor product quality, its inability to capture any single demographic segment further cemented Forever 21's demise.

How are People Buying from F21?

Before filing for bankruptcy, there were 44 stores in Canada and 700 stores worldwide. Forever 21 aggressively pursued growth through in-store purchases and increasing their retail footprint. However, their store expansion led to poor margins and low profitability as increased rental expenses ate up 30% of revenues. As the industry turned to e-commerce, Forever 21 was left behind. E-commerce based businesses have higher margins and growth within the industry. While Forever 21 concentrated on generating sales in their physical stores, competitors made upwards of 30% of revenues through e-commerce, nearly double those of Forever 21(16%).[9] Even with surveys demonstrating that millennials (in the U.S.) made more than half of their purchases online[10], the focus was still on Forever 21's physical footprint.

The Social Media Campaign... Or Lack Thereof?

Forever 21's marketing budget reiterates its misunderstanding of current trends, as the US budget went from $800,000 in 2017 to under $344,375 by 2018. Similarly, in 2019, only $383,000 was been spent on marketing, with search engine optimization using the majority of the budget.[11] Their marketing efforts paled in comparison to other brands such as H&M, their biggest competitor, which spent a little under $100 million on advertising.[12] In a time where consumer engagement through marketing is crucial , Forever 21 seemed to move in the opposite direction.

As a result, Forever 21's social media engagement was severely lacking. Their social media platform was scattered and had minimal potential for sales conversions. Firstly, their branding was segmented across a multitude of accounts, supposedly targeted towards different demographics. Just to name a few, Forever 21 had a Canadian account, a men's account, and a plus size account.

When looking at H&M or FashionNova, they both utilize their large audiences by posting several posts a day that have links to their promotions on their online store. This additional level of interaction of the competitors has raised a competitive edge against Forever 21 as not only do they engage further with their audience, but they also focus their efforts to generate their online sales through social media platforms.

Fashion Nova

17.1M Followers	+839K
2 Followings	-354
1.04K Comments	+625
352K Likes	+16.2K

Forever 21

16.2M Followers
356 Followings
421 Comments
335K Likes

H&M

34.3M Followers	+18M
449 Followings	+93
2.04K Comments	+1.62k
1.39M Likes	+1.05M

The Cost of Copyright

Legality is also another aspect to consider when looking at the structure and success of Forever 21. Forever 21 has been sued over 50 times for allegedly stealing works from Diane von Furstenberg to Gwen Stefani and most recently, Ariana Grande.[13] Of all these cases, only one case with the label Trovata was settled in courts.[14] Forever 21 gets away with these lawsuits because of copyright law.[15] Specifically, copying a design or a piece of clothing verbatim is not technically illegal because the law doesn't prohibit creative expression and can thus allow Forever 21 to 'copy' designs.[16] Under the Innovative Design Protection and Piracy Act, in the US, it lays out the rights of artists and designers to be protected from others copying their works of art, including the designs; however, this legislation does not include clothing as it is considered a "useful article".[17] For this reason, large enterprises, such as Forever 21, may be excused of copyright law as there is no legislation that is limiting them from copying the designs, especially if they are not patented by the designer.

While Forever 21 has been able to avoid consequences in the court room, they have suffered greatly in their trial against public opinion. In a recent advertising campaign, Forever 21 victimized Ariana Grande by copying her "7 Rings" music video outfit. Although the $10m financial loss wasn't substantial, their brand image was negatively impacted.[18] The backlash of Forever 21's reputation by prominent public figures ultimately accelerated the other consequences of their marketing strategy. As there was an absence of response to these public claims and no attempt to salvage their reputation, the damage incurred by these copyright issues indirectly caused losses greater than the settlement themselves.

Abbey Minke, Townsquare Media

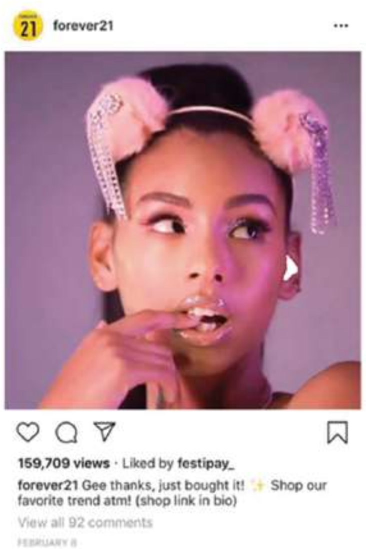


Image of Forever 21's look-alike model with lyrics from *7 Rings*

Images of Ariana Grande from the *7 Rings* music video

Aftermath and Next Steps

Due to its poor financials and ineffective marketing position, Forever 21 filed for Chapter 11 bankruptcy protection which allowed the company to continue operating a few stores. Around 350 stores will be shut down globally including all 44 Canadian stores.[19]

Forever 21 is a prime example of how the American Dream can quickly turn into a nightmare. Their strategy to hastily expand their business without looking at how they were positioning themselves in the market ultimately led to their bankruptcy filing.

In the meantime, Forever 21 has focused its efforts on the American market, with an emphasis on restructuring and reevaluating their strategy. Due to the nature of Forever 21's business model, it is difficult to determine what the next steps will be. In the meantime however, only assumptions can be made regarding Forever 21's future.

Furthur readings and article citations may be found at
www. waterloobusinessreview.com

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