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Marianna Richardson
mariannari@hotmail.com

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A BRIGHT FUTURE

THE PROMISE OF A BRIGHT FUTURE

is a theme endorsed by theologians, philosophers, politicians, lovers, and entrepreneurs. Looking forward to a better tomorrow is an enduring trait for the optimist who sees, even in tragedy, the bright future ahead.

In business, opportunities are often determined by passion, drive, and persuasion in delivering a brilliant vision for future opportunities. Nancy Duarte describes the power business people have to change the world in her book Resonate: “If presented well, a smart idea acts as the igniting spark for an explosion of human and material resources…. So, if you can communicate an idea well, you have, within you, the power to change the world.”

In this issue of Marriott Student Review, we explore the bright future of the business world. Each article focuses on some aspect of business and the exciting possibilities that lay ahead. For example, Sarah Romney explores the power of happiness to improve one’s business possibilities. Wearing a smile may help you climb the corporate ladder. Seeing life as half full rather than half empty could influence your career.

A BRIGHT FUTURE FOR BLOCKCHAIN, MERGERS, AND ACQUISITIONS

Jonathan Chichoni analyzed the digital global supply chain and the international expansion of blockchain technology. Blockchain has a bright future ahead. To help the reader understand what blockchain is, Chichoni introduces the topic in a separate article for those who need a primer explanation of this technology that is literally taking over the world. Both of these articles are taken from his honor’s thesis (which can be found in its entirety on our ScholarsArchive website).

Philip Morgan studied the predictive power of SEC filings for mergers and acquisitions by doing a textual analysis to see if there were any correlations between a company’s filings and the company’s eventual success or failure. (This article is also his honor’s thesis and the complete thesis can also be found on ScholarsArchive.) Is there predictive power in the filings? You’ll have to read the article to find out.

A BRIGHT FUTURE FOR REFUGEES

Refugees are often seen as a negative part of society. Michael Jarman points out that they should be viewed positively for their potential to increase our GDP and improve our economy. Refugees should be given the opportunity for a bright future in countries around the world.

For example, Elon Musk was originally an immigrant from Europe who came to the United States (by way of Canada) to start a new life. Luckily, Elon Musk was able to work in the USA or our country would not have the companies of SpaceEx, Tesla, or Boring. Ryan Yauney looks at Elon Musk’s leadership style and the future of this entrepreneurial rising star, especially in the areas of space travel, electric cars, and solar energy. Solar energy is the industry spotlight for this MSR issue; hopefully, it will continue to help our country have a dazzling future.

Sometimes, we might get discouraged about all the negative things happening around the world and we may begin to think the future looks bleak and without hope. In 2011, President Boyd K. Packer gave us a promise of a bright future ahead: “Sometimes you might be tempted to think as I did from time to time in my youth: ‘The way things are going, the world’s going to be over with. The end of the world is going to come before I get to where I should be.’ Not so! You can look forward to doing it right—getting married, having a family, seeing your children and grandchildren, maybe even great-grandchildren.” There is a promise of a bright future ahead, no matter what we read in the news.

Please join us in looking ahead to a bright future! Share with us your thoughts on our Facebook page or LinkedIn profile of how bright the future is for you and your business.

Enjoy reading,

Marianna Richardson

Marianna Richardson, Editor-in-Chief

Notes

2 President Boyd K. Packer, President of the Quorum of the Twelve Apostles, “Counsel to Youth,” Ensign, Nov. 2011, 16, 18–19.
We all grew up hearing the cheesy line, “a smile is contagious.” But, this phrase represents a simple idea that may be the key to improving your entire experience at work and school each day. Whether you are dealing with an unproductive team, a tough boss, or a personal lack of motivation, focusing on a positive attitude will improve your own success, as well as affect the emotions and performance of your classmates and coworkers. Not every problem will be solved by pasting a smile on your face and hoping it will work out. However, one’s conscious and persistent effort to be happy can significantly impact an organization.
Emotions are Contagious

Whether you are happy, sad, excited, or bored, your attitude will spread to others. The human brain is fascinating in that it recognizes and reflects social cues from other people, whether or not we notice it. The psychological principle of “mirroring” explains that we tend to mimic and reflect the expressions of other people. Not only do we start to reflect the expression on their faces, but our facial expressions and posture become fascinating in that it recognizes and reflects social cues from other people, whether or not we notice it. The psychological principle of “mirroring” explains that we tend to mimic and reflect the expressions of other people.

So, like a virus, your attitude will quickly spread around the workplace and school to your colleagues and to your family at home. Focusing on having a positive attitude will likewise make others that you interact with happy and positive.

Professors James H. Fowler and Nicholas A. Christakis performed a study in which they measured people’s levels of happiness based on the levels of happiness of others in their social networks. Happiness was determined by a series of questions about feeling happy and enjoying life. The study showed that people were about 15% more likely to be happy if their first-degree acquaintances were also happy. This statistic decreased as the directness of the relationship with the person decreased, but there was still a significant impact on happiness up to four degrees of separation from the subject (Fowler, Christakis, 2008).

The chart shows these findings based on the directness of the relationship in the social network (see Figure 1). The feelings of happiness that one finds in social networks, even from people not in the person’s direct network, are significantly correlated with that person’s happiness.

Attitude Improves Performance

So, why does being happy help so much? In school systems, the curriculum and schedule is important, but another important contributing factor to student’s performance is their attitude. And what contributes most to the attitude of the students? Not surprisingly, it is the attitude of the teacher! The attitude of one leader can spread to a class full of students, causing them to perform better (Osae, 2016).

Similarly, the results of customer service interactions also depend greatly on the attitude of the salesperson (Libin, 2017). When salespeople have a positive attitude, they are more likely to make a sale, which shows how their attitude can influence responses of others and their own personal performance.

One’s attitude affects performance, as well as other contributing factors. From examining a variety of studies, Dr. Geetika Patnaik explains that optimism and positive emotions improve a person’s motivation, ability to make decisions, capacity to think creatively, and physical health (Patnaik, 2017). A positive and happy attitude leads to improved performance and output.

Individuals’ Attitudes Improve Teams

Not only does focusing on a happy attitude improve one’s personal performance and success, but through the effects that your emotions have on others, positivity can also benefit teams. Teams are more “resilient” when team members are happy. This helps them work together to solve problems and face adversity. A study was conducted on 216 different teams belonging to 40 companies where positive attitudes of team members including enthusiasm, optimism, satisfaction, comfort, and relaxation were shown to significantly improve the team’s resilience. The collective emotions were shown to significantly improve the team’s resilience (Meneghal et al., 2017). Even when only some of the team members are happy and positive, those that do not have a positive attitude still perform better when surrounded by those that do (Livi et al. 2015). You can’t go wrong by bringing a good attitude to a team; your positivity will benefit each of its members.
How Can You Be Happy?

When work or school is tedious, boring, challenging, or overwhelming, how can you have a happy, positive attitude all the time? It goes back to “feedback,” the idea that our facial expressions and posture contribute to how we feel on the inside. Basically, you must “fake it ’til you make it.” Even if you are not feeling happy or excited, by controlling your expressions and making yourself appear happy and excited, you will actually start feeling that way (Hatfield et al., 1993). A smile does, in fact, go a long way. However, a smile here and there may not do the trick. You must let an enthusiastic demeanor shine through in your posture, voice, and facial expressions, leaving yourself cheerful and radiating happiness to others.

Emotions are powerful and contagious. By focusing on something as simple as your attitude, you can easily make a positive impact in your school and work environment, or any organization for that matter. The benefits include, but are not limited to, improved performance, more resilient teams, and a higher wage at work. You can enjoy work and life more and help others catch the epidemic too. So, be the one to influence others and not to be influenced!

Notes

ASYLUM-SEEKER
According to the United Nations Refugee Agency, an asylum-seeker is someone who has left his or her home country as a political refugee and whose request for sanctuary has yet to be processed. About one million people seek asylum each year across the globe.

DESIGN THINKING
Design thinking is a problem-solving method based on creative solutions. Not limited to visuals alone, it is used in business and social contexts. For example, companies use design thinking to predict what future consumers will want.

MERGERS AND ACQUISITIONS
A term common in legal discussions and among large businesses, “mergers and acquisitions” refers to the consolidation of companies or assets. Disney’s purchase of Pixar in 2006 provides a great example. They occur through various financial transactions and must involve two companies.

REGRSSION
Statistics-centered studies and articles often refer to regressions. Regression is a statistical term that refers to the measure of the relationship between the mean value of one variable and the corresponding values of other variables. It is a technique for determining how two behaviors, events, or other variables are correlated.

STATISTICALLY SIGNIFICANT
When studying statistics, comparisons are made between the experimental data collected in studies and control data that represent what was otherwise expected. Statistical significance is used to determine whether the discrepancies between experimental and control data are simply due to chance or represent a significant difference between the factors in the study. For example, when a result like “Sales for Green Units” is statistically significant “at the 1% level” compared to sales measures for other colors, this means that the result would only happen 1% or less of the time were it to be true that there was actually no difference between how well Green Units sell versus the other varieties. Findings that are not statistically significant, yet vary from control data, are often the result of phenomena like random sampling error, such as when you seem to pull out only white socks from your drawer, even though you know you have more black ones.

By Victoria Beecroft
Leadership Development:  
A Study of Elon Musk  
BY RYAN YAUNEY

"Nations hire him to get to outer space. His solar company is cash-flow positive. His electric supercars seat seven. Superheroes emulate him. He wants to die on Mars. He is... Elon Musk." Elon Musk is irrefutably a captivating figure, but how has his development as a leader influenced his success, and how can these qualities be replicated in managers across the nation?

Through his unique life circumstances, Musk has developed the important leadership qualities of being (1) a proactive learner, (2) a hard worker, (3) a bold visionary, and (4) an unwavering optimist, which still influence his success today. Businesses can't replicate Musk's lifetime of experience in their employees. However, businesses can breed leadership qualities (such as those exemplified by Musk) in their employees by (1) developing a learning culture, (2) leading from the front, (3) abiding by a mission statement, and (4) fostering positivity in the workplace.

**Proactive Learner.** Musk's innate sense of curiosity stems largely from the unusual amount of independence he experienced as a child. Since his parents were divorced when he was only nine years old, Elon and his younger brother Kimbal were left much of the time to explore the world on their own.

Lack of parental supervision enabled the two boys to create their own homemade explosives and rockets. Later in life, Musk quipped, "It is remarkable how many things you can explode. I'm lucky I have all my fingers." A pattern of learning and experimentation continued for Musk into his adult career. In the process of launching his
company SpaceX. Musk would learn advanced levels of rocket science from his own personal study.

**LEARNING CULTURE.** Promoting life-long learning among a company’s employees is essential to maintaining its competitive edge. For example, one recent scholarly study conducted by Andrew Cooper indicates that a learning culture positively impacts organizational performance.9

One course of action many successful companies have implemented to create a learning culture is to give financial assistance to its employees to further their education.9 Educational benefits are becoming increasingly important as more millennials enter the workplace.

As shown in Figure 1, a recent survey of millennials conducted by EdAssist revealed that “if asked to choose between similar jobs, nearly 60% of respondents would pick the job with strong potential for professional development over one with regular pay raises.”8 Giving financial aid for continuing education (whether through seminars) not only increases company performance by improving employees’ skill sets, but also leads more employees to pick the job with strong potential for professional development.4

In Simon Sinek’s book “Leaders Eat Last,” he details a less commonly acknowledged, yet equally important, aspect of leadership: transformational leadership. According to Sinek, “leadership tells the truth … and employees understand that they are working towards a greater cause.”4

**BOLD VISIONARY.** In his teen years, Musk spent a significant amount of time pouring over religious and philosophical texts. When asked which particular work touched him, his response is equally as unique as himself: comic science-fiction novel, The Hitchhiker’s Guide to the Galaxy. The novel led Musk to deduce that “the only thing that makes sense is to strive for greater collective enlightenment.”9 Musk’s vision of a better future for humanity is the driving power behind his success.

Although former employees sometimes describe him as “autocratic and blunt to the point of offensive,” they remain remarkably loyal.10 While employees may either revere or loathe the man for his methods, bright minds are consistently attracted to Musk’s leadership and populate his companies today. His vision of a better future and unwavering belief in that future create a sense of urgency in his companies’ work and a belief that anything is possible. He is able to push his employees harder because they understand that they are working towards a greater cause.

**MISSION STATEMENTS.** Mission statements provide a sense of direction and focus among employees. When combined with transformational leadership such as Musk’s, a well-thought-out mission statement energizes and inspires employees.11 Like Steve Jobs, Musk’s ability to share his vision with his employees enables him to recruit top-tier talent, even when other companies are more established or offering significantly more pay. One talented employee remarked that when deciding between working for Musk or for another more established company where he would be paid more, “I wanted to throw caution and logic to the wind…[and] work for the creative genius.”12

Beyond creating a sense of focus and direction among employees, mission statements keep a company focused on its core competencies. Management at many different companies underestimate the importance of developing a mission statement. Researcher Fred David found that 59 percent of the Chief Executive Officers of Business Weeks’ top 1,000 firms run companies that do not have mission statements.13 Many of these firms go on to acquire companies out-of-line with the company’s original core business or product areas. After a closer look, researcher Michael Porter discovered a shockingly dismal success rate when companies acquire other firms outside of their original scope.14

**UNWAVERING OPTIMIST.** While Musk’s ability to fail may not separate him from his competitors, he differentiates himself with his ability to remain optimistic and wholeheartedly convinced that he will succeed. After lengthy development of a new model of his all-electric Tesla car, the vehicle burst into flames during a test run. On Tesla’s blog, Musk gave his rebuttal to the public, “For consumers concerned about fire risk, there should be absolutely zero doubt that it is safer to power a car with a battery than a large tank of highly flammable liquid.”15

Musk’s childhood problem with bullies played a large role in developing his optimistic tendencies. Throughout his childhood, Musk was repeatedly bullied by many of his classmates, once even to the point where he had to be rushed to the hospital. Musk summarizes his emotional response to being bullied as a child, “If you get up in the morning and think the future is going to be better, it is a bright day. Otherwise, it’s not.”16 For Musk, the only viable option was to hold on firmly to hope. Today, Musk’s hard-earned lesson to remain optimistic enables him to see a bright future in industries doomed by his critics to failure.

**LEADERSHIP FROM THE FRONT.** Elon Musk inspires his employees because, although he has high expectations for them, he demands even more from himself. Leaders must be committed to doing the work necessary for the company’s success before they will be able to get others to commit. The Harvard Business Review article, “Like It or Not, You Are Always Leading by Example” explains that all serious leaders recognize that their example has a continuous impact on their company. Inspiring leaders set the example for their employees through consistent hard work and adherence to the company’s core values.9

![Figure One: Millennials Job Preferences](https://scholarsarchive.byu.edu/marriottstudentreview/vol2/iss2/1#image10)
THE HAPPINESS ADVANTAGE. World-renowned psychologist Shawn Achor asserts in his book “The Happiness Advantage” that happiness and positivity are key drivers of success and productivity. Figure 2 illustrates how, after extensive mathematical modeling, psychologist and business consultant Marcial Losada determined that 2.9013 is the ratio of positive-to-negative interactions necessary to make a corporate team successful. Furthermore, Losada discovered that although teams just above the “Losada Line” aren’t hindered by negativity, teams that manage to reach a ratio of six-to-one positive-to-negative comments yield peak levels of performance.

Because managers generally interact with a large number of employees, they have a tremendous opportunity to influence office culture. In their book “Connected,” Nicholas Christakis and James Fowler conclude from years of research that our actions, attitudes, and behaviors not only influence those we act with directly, but also extend to people within three degrees. Fowler explains, “I know that I’m not just having an impact on my son, I’m potentially having an impact on my son’s best friend’s mother.” Managers have the opportunity and responsibility to greatly impact office culture through consistent personal optimism.

CONCLUSION. Although Elon Musk is one-of-a-kind CEO, many of the leadership qualities vital to his success can be developed in managers throughout a company. Companies looking to gain a competitive edge should invest in their human capital by creating an office culture conducive to developing quality managers. An office culture based on continued learning, leadership by example, clear mission objectives, and positivity is the greenhouse that empowers employees to grow into effective managers. Companies that pay the price to cultivate a strong office culture will increasingly set themselves apart and experience substantial organic growth as employees step up to become effective managers and branch out the organization.

Notes
5. Zilber, “These 6 Companies.”
8. Zilber, “These 6 Companies.”
13. Ireland, and Hitt, “Mission Statements.”
The Digital
Global Supply Chain:
The Growing Case for Blockchain Technology
Expansion Within Global Supply Chain

By Jonathan Chichoni

Note from the editor: The following article was adapted from an honors thesis of the same name written by the author. The full text is available on the ScholarsArchive website. Also, for further background explanations on blockchain data storage technology, the reader is directed to “A Bit about Blockchain,” located in this issue of MSR, or “Strategic Implications of Blockchain” from MSR Vol. 2 Issue 1.

In 2011, the FDA introduced the Food Safety Modernization Act (FSMA) with the purpose of forcing food companies to place a greater emphasis on foodborne illness prevention as opposed to foodborne illness containment. The new statute made it so that companies must be able to continuously track their food products along the supply chain or they will face regulatory imposed damages (U.S. FDA 2011).

In 2013, Foster Farms issued a recall on all Foster Farms chicken products in an effort to contain a suspected outbreak of salmonella that is estimated to have infected some 634 individuals. In 2015, Chipotle suffered from an E. coli outbreak that afflicted over 55 people. The results were devastating to their brand and to their market capitalization. Both Foster Farms and Chipotle still cannot to this day pin down the exact source of the food illness outbreaks that were reported as a result of their food products. Other brands such as Dole Foods, Taco Bell, and Pilgrim's Pride also suffered from a lack of traceability in their food supply chains resulting in foodborne illness epidemics in the U.S. Against this backdrop, Walmart and IBM created a partnership to implement blockchain as a solution to these issues.

How Walmart’s Blockchain Functions in Food Supply Chains

In the latter half of 2016, Walmart created a partnership with IBM to use blockchain in Walmart’s supply chain. The project began as a pilot to track and trace the origin of pork products in China and produce in the U.S. (IBM 2017). In addition to these unit statistics, consumers have become more conscious of foodborne illnesses in what they buy. With the advent of smart technology, the average consumer is now more adept at researching and reviewing the food products they choose to purchase. Regulators have made a larger conscious effort to introduce greater food safety protocols and procedures to protect consumers from fraud and foodborne illnesses. In 2011, the FDA introduced the Food Safety Modernization Act (FSMA) with the purpose of forcing food companies to place a greater emphasis on foodborne illness prevention as opposed to foodborne illness containment. The new statute made it so that companies must be able to continuously track their food products along the supply chain or they will face regulatory imposed damages (U.S. FDA 2011).

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Blockchain Benefits Applied to Global Supply Chains

Companies worldwide can benefit from adopting business blockchain networks into their global supply chains. The benefits of blockchain that will be analyzed in the case studies in this article are the following:

1. Time savings:
   - Transaction times for multi-faceted and multi-party supply chains can be cut significantly. The de-centralized nature of a blockchain network allows this to happen. Supply chain's lead times can be cut even shorter and lag times can decrease as well.

2. Security improvements:
   - The distributed ledger technology component of blockchain protects against tampering, cybercrime, fraudulent products and hacking. This occurs through the permissioned cryptographic technology that can identify all network participants in the blockchain. The consensus features – proof of stake, multi-signature, practical byzantine fault tolerance and smart contracts – protect supply chains and all participants from counterfeit records, fraudulent goods and hacking attempts.

3. Auditable:
   - Regulators and trusted 3rd party auditors can more efficiently and more easily monitor a single ledger that records all transfers of asset ownership and transactions. As supply chains extend across borders, jurisdictions and modes of transportation, the relevant supply chain parties in the network can audit the necessary documentation to move supplies in real time and in an automated format.

4. Enhanced levels of trust and transparency:
   - Each network participant can determine which details of which transactions are visible to the other network participants. Permission can be granted to regulatory authorities and to trusted 3rd party auditors to view ownership transfer and transaction information in greater detail. Supply chains can keep relevant internal data to themselves while also offering distributors and suppliers certain informational details and the transparency required to streamline the process of shipment, information, documentation and cash management. This becomes critical in large, complex supply chains that have multiple players that operate in multiple national jurisdictions.

5. Enhanced operational efficiency:
   - By digitizing the ownership of assets and the use of smart contracts, transactions and transfer of ownership can occur at a greater speed with fewer lead times and fewer bottlenecks. Supply chains can optimize and streamline all the necessary flow of information, money and goods at speeds without slowing down the supply chain.

6. Potential for cost savings:
   - Due to reduced oversight constraints, fewer intermediaries, and less duplication of effort across the blockchain network, costs can be reduced significantly.

7. Traceability:
   - Blockchain seamlessly tracks assets on a single line (blockchain) from origin to end destination. This provides a benefit along the end to end supply chain in identifying sourcing groups, the assets themselves, and those involved along the supply chain. The chain of custody of assets is tamper resistant, giving the network participants the ability to trace assets origins and destinations. Supply chains can monitor, track and trace goods as they move from point of origin to point of delivery.

As they moved through their network of suppliers all the way up until they reached store shelves and ultimately the consumer.

In response to regulatory and consumer pressures, Walmart has created a consumer viewable supply chain solution available across 400 of its stores in mainland China. Using the distributed ledger technology of blockchain, Walmart has built an additional application where consumers can scan quick-response codes on food products with their smart phones that will show them the origin and supply chain of the food products they are purchasing in real time. The data for the partnership is stored on a unified storage platform powered by blockchain and has decreased the time it takes to trace the origin of food products from weeks down to two seconds. The published results of this partnership are greater traceability, transparency, time savings in discovering origins of products and potential hazards, greater satisfaction for end consumers and safer food.

Walmart established a blockchain platform to manage their supplier relationships that tracks and traces the quality of food products along the supply chain. Every supplier in the chain uses a unique digital identity permissioned by Walmart to access and participate in the platform. The smart contracts consensus feature of blockchain allows each supplier, wholesaler and distributor to store the data associated with the quality and trajectory of the food goods in the supply chain. In this framework, Walmart and the other participants mandate that their pre-approved quality certifications (expiration date, date of testing, color, etc.) must be approved by the necessary regulators and individuals along the supply chain. Each member along the supply chain would then endorse the food products as they move along the supply chain until they arrive to the consumer. The consumer can then use their smartphone to scan the quick-response codes provided by Walmart, giving them a complete view of the food's journey along the supply chain.

A diagram that illustrates the applications of blockchain across a food supply chain like Walmart.

New Developments

In December of 2017, Walmart and IBM expanded the partnership to include JD.com, Unilever, Dole, Nestlé and other food giants. This consortium of companies widened the scope of their partnership to use blockchain to integrate their online and offline traceability for food safety and quality management channels. Each company that joins the partnership in the future will be able to choose the traceability solution that best fits their need and systems. All partners will benefit from the exchange of information and from the secure data transparency that blockchain provides.

Operational efficiency, time savings, and cost savings in global trade are three of the central pillars upon which firms like Maersk compete. Dealing with lengthy, complex and time sensitive documentation such as transfer of ownership and compliance records create longer lead times and greater bottlenecks in the global trade and shipping industries. An increase in lead times and documentation becomes costly as companies compete on speed and efficiency in shipping. Using blockchain's distributed ledger fabric and consensus capabilities for participants in the global shipping market increases operational efficiency and time savings by reducing the
need for multiple parties to approve and produce the required documentation across shipping routes.

**Maersk Case Study Backdrop**

According to the World Economic Forum, more than $4 trillion in goods are shipped every year, and over 80% of the goods used by consumers daily are carried by the ocean shipping industry. Maersk accounts for 15.8% of the world’s shipping fleet traffic and for the years 2014-2016 experienced a sharp decrease in annual revenues (Figure 1-7). Published in their annual report were rising costs associated with trade documentation and administration. According to Maersk, the costs associated with trade documentation and administration of those goods are estimated to be one-fifth of the actual physical transportation costs. Maersk conducted a study in 2014 that revealed that on average there are 30 people or organizations involved in the shipment of a single container. This results in over 200 separate transactions, with each transaction requiring a new set of documents. The shipping industry as a whole is slowed by communication across transportation providers, freight forwarders, regulators, governments, ports, customs brokers and ocean carriers (Lieber 2017). Couple this challenge with a global decrease in shipping volumes for the years 2014-2016 and adopting blockchain begins to make sense.

In addition, the World Economic Forum also projects that by reducing barriers in the international supply chain system, global trade could increase by nearly 15%, which could theoretically boost employment and stimulate growth in economies worldwide (Maersk 2017).

**How Maersk’s Blockchain Functions in Global Shipping and Trade Supply Chains**

In June of 2016, Maersk and IBM began a partnership to incorporate blockchain technology into Maersk’s complex global supply chain. After a year and a half of successful development and piloting, Maersk and IBM announced an official joint venture to provide more efficient and secure methods of conducting global trade. The joint venture is its own entity that is separate from Maersk and IBM but co-owned and distributed by both companies. This joint venture was organized to create a digitized global trade platform built on open standards that can be used by all participants in the global shipping ecosystem including port authorities, customs organizations, logistics providers and governments.

Maersk and IBM’s blockchain framework takes specific advantage of blockchain’s open-source fabric application. Maersk and the organized consortium of other participants in the shipping industry use blockchain to cut down on documentation costs through the use of blockchain’s distributed ledger technology. Each participant’s transfer of ownership of goods is recorded in a permanent, inalterable ledger that all can view. Through the use of smart contracts, participants have experienced streamlined documentation without the need for gaps and lead times to draft new documentation or wait on lengthy approvals. This increase in efficiency has cut both documentation and 3rd party costs while also streamlining shipments. In addition, Maersk noticed a decrease in fraudulent and error-based labeling of containers given that blockchain was able to successfully present the movement of goods in real time to all network participants. The permissioned and consensus functionalities of blockchain have allowed regulators such as the Customs Administration of The Netherlands and the U.S. Department of Customs and Border protections to manage their own nodes in the network and automate the approval and regulatory checkpoints along the shipping supply chain.

Additional customs and government authorities, including Singapore Customs and Peruvian Customs, are exploring the option to collaborate with the platform to facilitate trade flows and enhance supply chain security. The global terminal operators APM Terminals and PSA International will use the platform to enrich port collaboration and improve terminal planning. Maersk has also garnered support from the Guangdong Inspection and Quarantine Bureau by connecting to its Global Quality Traceability System for import and export goods. Maersk and IBM have also begun to conduct research on empowering their blockchain application to solve "the empty container issue" by giving more parties access to the availability of nearby ships with real time tracking of empty containers. Maersk has also enlisted its own supply chain solutions company Damco, which handles departure points and arrival points, to work with international regulators on their blockchain network in a streamlined and efficient way.

In short, the distributed permissible application of blockchain has enabled Maersk to exchange transfer of ownership data, automate and speed up document workflows, create fraud resistant container tracking and track shipments from beginning to end without costly interactions among all the parties in the supply chain. They have successfully been able to track millions of containers and shipments whileinterfacing with regulators and other handlers along the way with complete trust. So far, the blockchain pilot test and the joint venture have been successful in increasing operational efficiency, transparency, cost savings and time savings.
Dubai Government – Auditability & Compliance in the Supply Chain

Auditability and compliance simplicity are essential for regulators to do their jobs effectively. With an increase in supply chain complexity, documentation costs, and fraudulent/illegal goods passing through borders, regulators and government agencies are in need of greater auditability and compliance simplification. A careful balance exists between protecting the end consumer and stimulating business and economic growth. This tightrope has been difficult to walk for companies and regulatory bodies alike given challenges in visibility into the operations of the companies they regulate. Blockchain incentivizes both parties by simplifying the compliance system through its automated consensus technology and reduces the need for large amounts of documentation through its distributed ledger technology. Visibility into complex supply chains makes it simple for regulators to audit the flow of goods and documentation along the supply chain through blockchain’s permissioned applications of distributed ledger technology.

Dubai Case Study Backdrop

According to the Organization for Economic Cooperation and Development, counterfeit goods is a $250 billion industry annually. The prevalence of these counterfeit goods is only exacerbated by a lack of transparency within the supply chain. Regulators are increasingly demanding greater transparency within supply chains regarding the composition and origin of products as well as greater visibility into Tier 2+ suppliers. Integrating internal and external data dependencies with complex multi-national regulatory and documentation requirements has also become a challenge in the supply chain environment. Governments and businesses alike are struggling to adjust to the rapid advancement of new product introductions, the evolving nature of the third-party provider landscape and changes in distribution networks.

How Dubai is Using Blockchain for Enhanced Auditability and Compliance Simplification

In February of 2016, Dubai announced the creation of the Global Blockchain Council with a goal to implement every facet of blockchain technology into their city. In May 2016, the council outlined seven proofs of concept for how the city of Dubai could implement blockchain. The first two that they have begun to tackle are:

1. Apply blockchain to trade finance in order to more effectively exchange goods and streamline the financing for those goods.
2. Streamline ID verification to reduce business registration times.

In February of 2018, IBM and Dubai launched a partnership in conjunction with eight organizations across three different countries for tracking the import and export of goods into Dubai. The blockchain components that Dubai has adopted for this supply chain task are blockchain’s distributed ledger fabric to provide supply chain participants and regulators with real-time shipment data and blockchain’s consensus applications, like smart contracts, to simplify the regulation and oversight of shipments in and out of Dubai (Smart Dubai 2016).

Regulators in Dubai will be able to provide the specifications and documentation necessary for trade participants and also be able to automate the completion and submission of the required documentation in real time through the use of smart contracts and the permissioned version of blockchain. They would have visibility into the movement of goods, the submission of documentation and the power to grant or withhold permission to participants on the blockchain. The distributed ledger function allows for government officials to track each movement of trade goods with the security of knowing that unless it passes through a government permissioned participant, the shipment will not enter Dubai.

New Developments

Beyond blockchain’s application to trade finance, The Smart Dubai Council projected that blockchain’s adoption into other governmental spheres beyond simplifying the compliance process and giving greater auditability for trade would include other benefits. They stated: “Required documentation, such as visa applications, bill payments and license renewals, which account for over 100 million documents each year, will be transacted digitally under the new strategy. Blockchain technology would contribute savings of up to 114 Mt tons of CO2 emissions from trip reductions and redistribute up to 25.1 million hours of economic productivity in saved document processing time. In adopting blockchain technology, Dubai stands to unlock $5.5 billion in savings annually in document processing alone — equal to one Burj Khalifa’s worth of value every year.” (Smart Dubai 2016)

While the pilot test has revealed few published statistics, government officials remain hopeful regarding the success of blockchain adoption in providing auditability and simplicity in the compliance process.
Merck – Security in the Pharmaceutical Supply Chain

Security in the pharmaceutical supply chain is paramount. Given that pharmaceutical companies’ greatest asset is their intellectual property, there exists a great need to secure that intellectual property from competitors and cyber-attacks. Pharmaceutical companies spend billions each year in research and development with the goal of creating, marketing, and distributing their intellectual property in the form of medicines and medical devices. In addition to protecting their research from competition, pharmaceuticals face the daunting task of protecting their brands and the end consumer from counterfeit pharmaceutical product. Through the application of blockchain’s distributed ledger, consensus, cryptographic, and permissioned features, the security of pharmaceutical supply chains can be greatly enhanced.

Merck Case Study Backdrop

In 2013, U.S. Congress enacted The Drug Supply Chain and Security Act with provisions that mandated pharmaceutical companies and drug distributors have a full unit-level track-and-trace system in place for products as they move through the supply chain in place by the end of 2023. All participants in the pharmaceutical supply chain are mandated to report any illegitimate drugs in the network within 24 hours. The FDA has also been increasing pressure on pharmaceutical companies to develop systems that can track, report and share information with the FDA across the various stages of the supply chain. This regulation was introduced largely to improve processes by a sole authoritative source. They are also able to secure their intellectual property from hacking and theft along the information flows of the supply chain. The origination of a drug, its conditions, authority rights, and checkpoint approvals are able to be accessed at any point in time. This enhances the audit trail of every unit in the distribution channel. Any deviation from the

How Merck is Using Blockchain for Enhanced Security in the Pharmaceutical Supply Chain

In late 2017, Merck announced a partnership with SAP, AmerisourceBergen and Cryptowerk to create an advanced track and trace blockchain network that can run on a mobile app. The technology uses barcode scanning to enable real-time visibility into the location of drugs wherever they may be in the supply chain. The blockchain network allows Merck employees, distribution partners and regulators to identify and track drugs by serial number, batch and expiration date.

Through blockchain’s immutability features such as permission and cryptography and consensus features such as smart contracts and PBFT, Merck is able to maximize the security of all participants in the supply chain. Blockchain’s smart contract functionality, along with the use of IoT devices, enables continuous drug tracking capability for participants in the pharmaceutical supply chain. The origin of a drug, its conditions, authority rights, and checkpoint approvals are able to be accessed at any point in time. This enhances the audit trail of every unit in the distribution channel. Any deviation from the

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Blockchain’s smart contract technology can also be used to follow regulatory statutes across the supply chain. Specific regulations can be coded into the transfer of drugs from one network participant to the other all the way down to the consumer. Once this process has been completed for a specific drug, blockchain’s distributed ledger technology allows regulators to retrieve a full history of product flows along the supply chain that can prove and ensure enhanced security.

Details regarding Merck’s adoption of blockchain are forthcoming, but an analysis of blockchain’s capabilities reveals a large additional benefit in enhanced security across the pharmaceutical supply chain. This case study analysis ties in perfectly with the typology analysis for the pharmaceutical industry.

Curious about blockchain? What is blockchain? Blockchain is a decentralized and digitally distributed ledger or database of records and transactions that facilitates the process of recording transactions and tracking assets in a business network. Those assets can be hard assets like food goods, micro-chips or houses. They can also be digital assets like intellectual property, branding, copyrights and documentation. Blockchain’s distributed ledger encompasses a list of connected blocks stored on a distributed network that is secured through cryptography. Blockchain derives its name from the manner in which it stores transaction data, in blocks that link together to form a chain. Each “block” contains encrypted information and hashed pointers to a previous block of information. The blocks record and confirm the time and sequence of transactions within a network that is governed by rules created by the network participants. As the number of transaction grows, so does the blockchain (Gupta 2017). Figure 1 is a diagram that shows the transaction process on a blockchain network.

Conclusion

There is still much to be studied in order to understand the reasons for which industries are adopting blockchain. This collection of case studies is but one variable to consider, especially as results from pilot programs and beta tests are premature and have yet to yield quantified sets of data that are available to the public for dissemination and further analysis. Nonetheless, it is clear that the seven key benefits of blockchain adoption to global supply chains are promising enough to warrant pilot and beta testing by industry participants.

Edited by Evan D. Poff

Illustrations created by and adapted from Vectorarte - Freepik.com
Blockchain technology is often referred to as a "de-centralized" technology meaning that it does not depend on intermediaries such as banks, clearing houses or escrow institutions to send, record, and store information. Traditional business networks rely on using different and multiple ledgers for each participant in the network. Blockchain allows all participants to be on the same network with a high degree of transparency and trust. Below are diagrams explaining the differences between a blockchain network and the network that businesses currently use.

This figure is illustrative of a few of the advantages of blockchain. As seen in figure 1, the blockchain network makes the business network more efficient and economical because it reduces duplication efforts and the need for intermediaries. All parties are able to see and access the same ledger. In addition to this simplified network shown in figure 1.2, a blockchain network operates on four key characteristics:

**CONSENSUS**

All participants in the blockchain network must agree on the network's validity. A blockchain network does this through trusted and transparent transactions in four separate ways:

1. **Proof of stake:** In order to validate transactions along a blockchain network the “validators” or network participants in the chain must hold a certain percentage of the network’s total value. It is generally supposed that this feature can protect from malicious attacks on the network by reducing the incentive for attacks and making it extremely expensive to execute attacks (Gupta 2017).

2. **Multi-signature:** Each transaction along the blockchain network requires a majority of the validators to agree that a transaction is valid (i.e. 6 out of 10 must agree that the transaction is valid). Multi-signature provides for enhanced consensus among participants and greater security across the supply chain (Gupta 2017).

3. **Practical Byzantine Fault Tolerance (PBFT):** This is an algorithm designed to settle disputes among the competing network participants when one participant generates a different transactional output than the other network participants in the blockchain. This specific feature provides security from hacking in a blockchain network (Gupta 2017).

4. **Smart Contracts:** These are agreements made by the network participants that govern the different transactions along the blockchain network. They can contain many contractual and binding clauses that can be self-executing and self-enforcing. They can provide better security to contract law and can reduce the lead times between transactions because they are verifiable and self-enforcing/self-executing. Smart contracts provide integrity, traceability and transparency across the supply chain (Gupta 2017).

In a business application, a blockchain has pluggable consensus: network participants may determine which consensus measure is best to use for a specific blockchain or function.

**PROVENANCE**

Network participants are able to understand and confirm where the asset came from and how the ownership of the asset has changed over time. A blockchain network does this through its shared ledger technology. The shared ledger or distributed ledger application of blockchain possesses the following functions:

1. Records all transactions that occur in the business network – the shared ledger is the source of truth upon which all participants can independently verify transactions and asset/information transfers (Gupta 2017).

2. **Multi-signature:** Each transaction along the blockchain network requires a majority of the validators to agree that a transaction is valid (i.e. 6 out of 10 must agree that the transaction is valid). Multi-signature provides for enhanced consensus among participants and greater security across the supply chain (Gupta 2017).
A Brief History of Blockchain

The genesis of blockchain goes back several years before bitcoin, the famous cryptocurrency. The underlying theories and research that preceded the creation of blockchain is more defined than its founding. In 1991, Stuart Haber and W. Scott Stornetta published their research on cryptographically secure blocks in the Journal of Cryptography with the title “How to time-stamp a digital document.” Their paper brought to light the first sequence of inalterable chains of digital documents whose time stamps and alterations could not be fraudulently changed (Haber 1991).

The discussion around cryptography and “blocks” evolved to generate the innovation of a de-centralized network file system that not only included cryptographic time stamping signatures on documents but also a network file system based on trust between two “block writers.” These innovations were published in 2002 at The Symposium on Principles of Distributed Computing by David Mazieres and Dennis Shasha (Mazieres, Shasha 2002). Ultimately in 2008, blockchain technology as we know it today was released as a distributed ledger technology and in 2009 became the underlying technology behind the cryptocurrency bitcoin. Its creator or group of creators, whose identities are not known, are identified under the pseudonym Satoshi Nakamoto.

Near the time of blockchain’s development, there was a growing global appetite for e-commerce, online banking, an increasing mobility of people and the rise of the Internet of Things (IoT). Each of these market dynamics presented unique challenges. First, in order to fuel global e-commerce growth, IoT expansion and online banking, payment networks needed to be faster than ever. Despite the creation of companies like PayPal and other merchant payment processing companies, many business transactions remained and to this day still remain inefficient. The time between the exchange of goods at the point of transaction and settlement can be long (especially in supplier transactions along a value chain). Many credit card companies created and have continued to sustain high prices of entry, leaving individuals and companies to pay the cost of onboarding and dealing with the time-consuming vetting and paperwork processes. Additionally, according to the World Bank, over half the population in the world did not have access to a bank account in 2009 and over two billion people today still remain without a bank account (World Bank 2017).

E-commerce could not actively engage those individuals due to lack of resources and consumer verification standards. Centralized systems such as banks placed all market participants at risk of fraud, cyber-attacks, network issues and systemic risk as seen in the 2008 market crash. The presence of these intermediaries created inefficiencies through the need for third-party validation and duplication of efforts across transactions. These only added to the challenges of e-commerce, online banking and IoT growth. The increasing mobility of people created an issue with dealing with local currencies and the slow and inefficient process of exchanging currencies. Hard currency was only useful in local transactions and in relatively small amounts. Against this backdrop, blockchain was created as a means of resolving these issues by providing benefits that would strengthen transparency, cost savings, time efficiency and trust among market participants.
EVEN THOUGH ITS ORIGINS EXTEND BACK MORE than 50 years, interest in design thinking has grown exponentially over the last 15 to 20 years across multiple industries, corporations, and universities, including Brigham Young University. With broad applicability and a human-centered focus, educators, researchers, and business executives have been using design thinking to develop innovative concepts and solutions. In this paper, we will first explain what design thinking is, how it is being incorporated into BYU in general, and finally, how design thinking is gaining a space in the Marriott School of Business.

WHAT IS DESIGN THINKING?

Design thinking is a methodology used to find creative solutions to “wicked” problems or conundrums that have multiple stakeholders and no clear solution. By drawing on elements of design and having a human-centered focus, design thinking produces a solution that truly meets the needs of the end user. The steps in this process include empathize (interview, observe, and survey to discover the needs of end users), define (determine the specific problem you are addressing), ideate (diverge with a multitude and variety of ideas before converging on a few), prototype (bring your idea to life with a simple tangible product), and test (gain feedback from people interacting with your prototype).1 This process is iterative, and steps can be repeated as many times as necessary to fit a project’s needs.

Design thinking is used in a variety of contexts, including the growing technology industry, industrial design firms, and even hospitals, in order to help create user-focused designs and patient-driven services. For example, the Mayo Clinic’s Innovation Center has implemented design thinking to develop the layout for its state-of-the-art chemotherapy unit. The team used observations, interviews, research, and interactions with full scale mock-ups to empathize and prototype for possible design solutions. Private treatment spaces, a large pharmacy, and nursing stations dispersed throughout the unit were all included in the final design. Ultimately, they created architectural plans based on these insights and a unit with serene, comfortable, and efficient space was created. Design thinking takes real problems and creates real solutions.2

WHAT IS HAPPENING WITH DESIGN THINKING AT BYU?

Increasing interest in design thinking through literature and innovation centers on BYU campus has led to multiple projects and curriculum implementing principles of design thinking. Industrial design, engineering, and other traditional design programs use design thinking often, however, the Kennedy Center and the BYU Library have recently been incorporating this methodology to enhance their offerings.

Within the Kennedy Center for International Studies, Professor Natalie Romeri-Lewis has been changing how students develop solutions. In her Topics in International and Area Studies classes, undergraduate students are given a problem that a country is currently facing, and then are assigned to use human-centered design to develop solutions. In the 2017-18 school year, projects included designing a sexual health education program in Cambodia and testing a design for a Columbian truth commission; both projects were prototyped and tested on fellow BYU students. The results were sent back to associated contacts in Columbia, and will hopefully make an impact on future decisions.

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The BYU Library has used design thinking recently to prototype and test a new layout for their front counters as well as study desks. Following the 2017 Experience Design and Management Conference held at BYU, Library directors developed three ideas for a new layout for reference and check-out counters. Each idea was prototyped with movable shelving and signs and video recorded to see how students reacted to the changes. Flow of traffic was documented and plans to implement changes permanently are in progress. Both of these examples show that whether in engineering, social issues, or physical layout, design thinking is making an impact on the BYU campus.

**WHAT’S HAPPENING WITH DESIGN THINKING IN THE MARRIOTT SCHOOL?**

Design thinking is increasingly becoming a valued methodology by business leaders and the Marriott School is taking notice. Design thinking can be found in a variety of places through the MSB including the Ballard and Rollins Centers, student competitions, the Department of Experience Design and Management classes, and the new Design Thinking minor.

The Ballard Center for Economic Self-Reliance and the Rollins Center for Entrepreneurship and Technology both offer courses with design thinking content such as BUS M 312 - Innovation Bootcamp. The Ballard Center and the Department of Experience Design and Management recently co-sponsored the first Y-Prize Design Thinking Competition in which students enrolled in a design thinking workshop class in order to use the methodology to redesign aspects of the BYU experience to better promote lifelong learning and service.

The Department of Experience Design and Management (ExDM) has made a strategic decision to include design thinking as a focus competency for their students. The ExDM curriculum is designed to provide students with the skills and knowledge necessary to design, deliver, and manage meaningful customer and employee experiences. “Experience” is becoming one of the hottest buzzwords in business. As companies continuously strive to differentiate themselves from the competition, they must find ways to constantly improve their customers’ and employees’ interactions (or “touchpoints,” as an ExDM student would tell you) with the business. Through the ExDM program, students apply design thinking fundamentals of ideating, prototyping, and testing to the design of experience journeys. Students also participate in a variety of hands-on, outside-of-the-classroom learning experiences through partnerships with local companies like Cotopaxi and ‘Get Out Games’ Escape Rooms. You can find ExDM graduates in a wide variety of professional fields employing their design thinking skill sets.

**DESIGN THINKING MINOR.**

As companies and organizations of all industries begin to embrace the idea that customer experience is king, the Marriott School’s Experience Design and Management Department, in collaboration with the Instructional Psychology and Technology Department, the Department of Design, and the School of Technology, introduced a new Design Thinking minor (available starting Fall 2018) that helps students learn and apply design principles in creating solutions to industry problems in a collaborative, interdisciplinary environment. The minor's course outcomes include a study of design discipline and implementation, as well as creative discovery and inquiry, and ends with one final, culminating project meant to integrate design thinking with students’ individual majors or interests.

Four courses in the minor are offered from the Marriott School of Business’ Department of Experience Design, including “Creating a Good Life,” the introductory course to the ExDM major focused on positive psychology and the power of experiences; “Experience Facilitation,” a course dedicated to the elements and skills needed to stage
meaningful and memorable recreational experiences; “Experience Design,” an introduction into the processes of design thinking and the customer journey; and the “Experience Design Lab,” a capstone class intended to challenge students to find and present real-life solutions to a company of their choice.

For more information about the Design Thinking Minor visit: education.byu.edu/ipt/designthinking

HOW IS THIS RELEVANT TO BUSINESS?

How is design thinking relevant to business, especially inside the Marriott School? The answer can be found using the tenets of what design thinking is. Design thinking involves the ideating, prototyping, testing, and iterating of an idea in a collaborative setting. At its core, design thinking encourages individuals to freely share their personal insights, allowing for a team to work together to find a solution that not only addresses a problem, but unifies those who took part in creating the solution.

Additionally, through design thinking, an organization or company can find creative, lasting, and meaningful solutions to everyday challenges faced by the organization’s clientele. By taking time to “empathize” with the end user, businesses are able to develop a relationship with their customer base and find ways to better address their needs. Through the iterative nature of design thinking, improvements can be made (and remade) as the company strives to find the best possible solution to a problem. This communication and effort helps build customer rapport with the brand, which in turn can increase profits.

In today’s competitive business world, companies set themselves apart by producing new products and services and tackling issues that seem unsolvable. Becoming competent in design thinking sets a student apart as they are able to enter the workforce prepared to meet the complex challenges that await them.

Notes


EXECUTIVE SPOTLIGHT:

ADAM CHASE, CEO
CHASE MARKETING

BY KYLAN RUTHERFORD

Adam Chase has been CEO of Chase Marketing, a Utah-based marketing firm, for ten years. Chase Marketing was started by his father, Mike Chase, in 1992. “It’s a family business, but it works because we all have such different strengths.” Adam has worked with his father, brother, and now his sister to build Chase Marketing from the ground up. A career’s worth of ups and downs, roadblocks, and brilliant moments of success has shaped Adam into a grounded and people-centered CEO.

MARKETING AND BRANDING

At Chase Marketing, Adam and his employees work with companies to develop a strategy to reach more people. And they do this well; their website catalogues a rich history of gorgeous designs and campaigns for various well-known clients.

But the company doesn’t just market. Chase Marketing creates brands. For Adam, their connection with a client is so much more than just an ad campaign. “Your brand is the emotional connection that you have with everybody you touch.” For each company with which he works, Adam strives not only to increase exposure for a company, but also to establish a brand worth exposing. Chase Marketing excels at building brands, and Adam knows how to do it because there was a time he had to do it for his own company.

BRANDING ACCOUNTABILITY

Several years ago when Chase Marketing had just a handful of employees, Adam Chase had a defining moment while meeting with a client that would define his future career in leadership, his personal life, and the eventual branding of his family’s company.

The client was a big company and Chase Marketing had already established a great relationship with the client’s rep. In the meeting, Adam and his father, Mike, had just finished presenting the rates that they could secure for a large-scale...
media campaign the company wanted to pursue. Adam’s rate was lower than the competition in all but one of the areas of interest, a group of radio stations. The rep turned to Adam and Mike and pointed out that if he didn’t partner with Chase Marketing, he could get a cheaper deal somewhere else. Then, he asked, “if it’s not about you getting lower rates for me, why should I use you guys?” In essence, the rep wanted to know why Chase Marketing was different.

“We didn’t have an answer, which was just a symptom of the bigger problem. We hadn’t established a ‘why’ for our company.” That shocked Adam. He was so rattled that when he stopped for gas after the meeting, he forgot to take the nozzle out of his car. “I drove away with the nozzle still in my car, and the thing popped off.” However, he arrived the next day at the office composed and resolved to establish that “why.”

Over the next few days, Adam reached out to all of the company’s clients, and even some potential new ones, asking questions about what they were looking for in an ad agency. They responded with a variety of things, like naturally fitting within the existing team and putting in the time to understand their industry. But the one common denominator was that “I want my advertising agency to have a sense of accountability.”

“All too often,” Adam explains, “it feels like agencies are transactional—like I’m putting together a package of design for you, or I’m putting together a package of media strategy, and you’re purchasing that from me. Agencies will sell something and then they’ll wash their hands and say, ‘it’s up to you to raise the bar!’ So we decided then and there that we’re going to be the accountability agency. We’re going to build a business on a mutual investment in our clients. And I feel like to this day that’s what helps us stand out from our competitors.”

FINDING NORTH

For Chase Marketing, establishing accountability comes up front. In their first interactions with a client, they establish what Adam refers to as a “north star principle.” They establish expectations and define what the most important goals the company wants to achieve. Then, they filter everything they do with that company through the lens of achieving that objective. “If we don’t establish expectations with a client upfront, you never can have a cadence of accountability.”

Adam practices that principle internally as well. For clients and employees alike, it’s never just about business. “We’re really building people at the end of the day. If I put all the power I have into making you successful as an employee, then you’re going to have a sense of accountability too.”

BRANDING IN ACTION

The principles Adam espouses shine through in the campaigns his company undertakes. A recent example is their creative and personal efforts on the 20th anniversary of one of their clients, Café Rio. “We called it their 20th birthday.” That sparked a fun idea in their office. Who would want to help wish Café Rio a happy birthday? So, they started floating the idea around, reaching out to their contacts.

They ended up with a list of people who wanted to help, including Alex Boyé, Thurl Bailey, the Murdock Brothers (Murdock Auto Group), and Jimmer Fredette. Chase Marketing sent a camera crew out, filmed several people at locations up and down the Wasatch Front, and produced a video for Café Rio that ended up going viral. That video led to a noticeable spike in sales, and an outpouring of “happy birthday” wishes from customers.

That personal yet simple touch with Café Rio speaks to the genuine care and love that Adam and his team give to every one of their clients. Their marketing strategies are never just sold and left; instead, the marketing relationship continues as long as it takes to help a company reach its goals. The results speak for themselves—through their long-term commitment to companies and their brands, Chase Marketing has established lasting relationships with clients, expanded their company, and become a thriving marketing agency at the base of Silicon Slopes.

BECOMING A PROBLEM SOLVER

For individuals looking to enter the marketing industry, Adam Chase’s advice is to become a problem solver. In hiring employees, “I want people who are willing to work hard and who are willing to dig to find solutions. […] People who come into my office and notice that there is a problem are far less valuable to me than people who come and show me that there’s a problem and then say, ‘Here are two different solutions and here are the repercussions of either.’”

In a job interview or in a career, how does one show they are a problem solver? “It’s really a show, don’t tell mentality,” Adam believes. He suggests that individuals interviewing should first know about the company and the issues the company is facing or the problems the company needs to overcome. Then, go in armed with examples that show how you would overcome those problems and “that you’re a person who can, on the fly, be faced with a curveball and be able to hit that pitch anyway.”

In the marketing industry, there will always be curveballs, and that’s one thing that makes Adam’s career rewarding. He loves the opportunity to dive into diverse industries, understand what they face, and work with them to think outside the box. The challenges that Café Rio faces are completely different from the problems a car dealership has to overcome. Individuals like Adam who thrive when faced with ever-changing objectives and obstacles have a career for them in marketing.

ADAM CHASE

“My north star is my relationship with God and family. It puts everything else into perspective.” Despite his busy and variable career, Adam keeps to his north star by making time for his priorities. He says his calendar is his favorite app on his phone because it helps him protect time for family and faith. “As soon as I start making verbal commitments or as soon as I don’t record what needs to be done, I get lost in the moment of whatever I’m doing.” Adam devotes all the time he can to his “north star” relationships, just one example being his decision to coach his son’s soccer team.

Adam’s personal and professional commitments and relationships underpin everything he does as a CEO. “I’ve learned from really great leaders around me that leadership is about investing in people. I feel like that’s one thing that matters to me—investing in relationships and helping people to become better, and then somehow I always end up better for it.”
According to data from Thomson Reuters, mergers & acquisitions (M&A) represent a vital mechanism for consolidation and restructuring within industries and carry significant influence over rapid changes in market prices. As such, any insight into the unique ability of investors to more successfully utilize publicly available information to identify firms in M&A that are likely to have large price movements is valuable. This paper seeks to answer the question, “How does a textual analysis of mergers & acquisitions SEC filings, segmented by industry, size, and time, predict long-term, cumulative abnormal post-merger-filings returns for an acquirer?” My hypothesis is built on the premise that the soft, qualitative text scribed by corporate boards into M&A proxy letters for shareholders can provide insight into the future success of acquirers’ stock that other quantitative data does not. I hypothesize that by using regression analyses with textual measures from the Diction software program, I can gain insights to answer this question.
This paper is not only important within academia but is also viable as a strategy from which investors may achieve superior returns. Huge amounts of capital are involved with merger arbitrage investment firms and in M&A activity generally. For example, U.S. companies alone engage, on average, in more than $1.5 trillion (WSJ Dealogic) of M&A activity each year since 2014. But many of these deals result in lost value for shareholders. As such, studies show the failure rate of M&A (i.e., negative post-transaction stock returns) is somewhere between 70% and 90% (Christensen et al. (2011)). Many researchers have tried to explain this astonishing number by analyzing aspects of transactions that worked and those that did not work. However, even after a myriad of quantitative factors tested, researchers have had limited success in identifying the potential causes of these successes and failures. Despite the losses associated with many mergers, some other deals have generated significant economic gains, and hence investors frequently make speculative investments in M&A transactions.

A majority of publicly traded companies, once targeted for M&A activity, involve company shareholders to vote by proxy in the approval process for the transaction. As part of this process companies are required to make specific SEC filings. These filings include, but are not limited to, the DEFM14A, DEFM14C, and 8K. By examining a variety of possible explanatory variables related to these filings, I hope to find that as firms publish longer filings, or filings that have more certain or optimistic sentiments, they are more likely to experience heightened post-filing acquirer stock returns. This idea builds on work previously conducted by Steven Fortney and Karl Diether at Brigham Young University, using a similar methodology but with improved measures of textual sentiment analysis.

The main underlying idea for my thesis is that firms with more specific and concrete strategic rationales for M&A activity are more likely to generate economic wealth via the transaction leading to better future returns. This more robust rationale is likely to be reflected in differently written or more extensive SEC filings related to the deal. In contrast, deals where the firms might be merging for less robust reasons (e.g., quick fixes or dramatic attempts to shore future performance and compensate management) are likely to be associated with SEC filings whose language reflects these shorter-term rationales. Thus, this work seeks to use textual analysis to identify the soft perspective and intentions of corporate boards and attorneys toward M&A activity through the text in the SEC filings and hopefully be able to identify which firms are most likely to experience superior subsequent returns.

My approach to this textual analysis utilizes the pre-determined sentiment libraries in Diction software packages to measure the sentiment reflected in the M&A public filings. I then regress announcement, and subsequent returns, on measures of text length and sentiment to find out how much of the post-transaction acquirer performance might be explained by the soft information in the filing text. In order for my analysis to find significant results that would be useful to investors it must be the case that (1) the SEC filings tend to differ in systematic ways between deals that are made for strong versus questionable strategic reasons, (2) these differences must be detectable using the type of textual analysis provided by the Diction software, and (3) the soft information being assessed by the textual analysis measures must not already be reflected in the price. If the market already understands the information, then these measures will not be able to predict successful M&A returns.

The idea that important soft information is available to investors via textual analysis is not new to this paper. For example, Cohen, Malloy, and Nguyen (2016) examined quarterly and annual SEC filings and found that changes to the language within filings have strong implications for future returns. Li (2010) also examines risk sentiment within filings’ text and finds that these reports can predict certain future returns. Closest to this paper is perhaps research done by Yan (2015), who focuses on textual sentiment in merger-related corporate filings and finds that overly optimistic acquirers experience worse long-term post-transaction returns. Given these papers, I was hopeful that textual analysis of merger filings would provide useful information to investors seeking to invest around these transactions.

As described above, the literature has shown evidence that textual analysis can provide guidance in which filings are most likely to be followed by statistically significant returns. However, none of this literature specifically tests whether the various measures of the M&A filing’s sentiment can explain future stock performance. I hypothesize that the post-filing returns of acquiring companies can be explained by the M&A filings in forms DEFM14A and DEFM14C. The acceptance or rejection of this hypothesis will provide a unique perspective into the potential predictive success that textual analysis of SEC proxy letters and other M&A-related SEC filings can have in explaining M&A success as measured by post-merger returns.

As a result of this paper, I identify a generalized lack of statistically significant correlation between textual sentiment and future returns, confirming general market efficiency. However, results in this paper indicate specific instances of significant positive correlation between the sentiment optimism and future returns. Still, this strong positive correlation may be a function of latent variables. Nonetheless, specific market inefficiencies exist in the pricing of acquiring firms’ stock following the public release of corporate M&A filings. As such, investors who utilize this strategy of textual analysis followed by investing in acquirers expressing strong levels of optimism and shorting acquirers expressing weak levels of optimism may experience superior returns – and thus, text may be used in specific instances to predict successful returns to investors in M&A transactions.
By utilizing Diction, I was able to move beyond the more simplified dichotomies (good/bad, happy/sad) that are focused and prevalent throughout the field of textual analysis, and view text through the lens of 40 different tones and sentiments, identifying patterns within phrases to determine how certain corporate filings might conform to norms. Given the large number of potential independent variables, I identified and analyzed each one, but narrowed down the results around the five “master variables” of:

1. Activity (movement, change, and implementation of ideas)
2. Optimism (satisfaction, praise, endorsements, highlight positives)
3. Certainty (resoluteness, completeness, tenacity, avoid ambivalence)
4. Realism (tangible, familiar, and recognizable to people)
5. Commonality (agreed-upon values, cooperation, rejecting exclusion)

These five master variables are identified by Diction and “provide the most general understanding of a given text and any study” (Diction (2013)). From this set, I particularly focused my analysis around the independent variables of optimism and certainty, but first sought to understand any correlation between these independent variables.

**Table 6: Total Sentiment Analysis (Univariate Regression)**

Table 6 displays regression coefficients, p-values for the five “master variables” for all transactions available between ‘94 -’17. There are no industry, time, or size controls. Columns (1-5) indicate the acquirer returns around (1) and following the filling date (2-5).

![Table 6](image)

The results in Table 6 indicate primarily positive statistically significant individual longer-term correlation between the master sentiment variables and returns across two different horizons. However, these results do not take into consideration the influences and relationships between variables as Table 7 does. Given the results in Table 6, specifically regarding the strongest Adjusted R-Square for the sentiment optimism, I determined to narrow in on this variable as a potential predictor.

**Table 7: Total Sentiment Analysis (Multivariate Regression)**

Table 7 displays regression coefficients and p-values for the five “master variables” for all transactions. Significant at the 10%, 5%, and 1% level is shown with *, **, *** respectively. P-values are shown below the regression coefficients.

Looking at the regression coefficients in Tables 6 and 7, indications of negative statistically significant correlation at the 10% level between Optimism and 30-day returns exist, confirming prior literature (Yan (2015)) which concluded that increased optimism has negative correlation with post-filing returns. These results therefore do not conflict with prior literature in regard to short-term returns; however, these results indicate that positive significant correlation at the 1% level exists in the longer-term periods. Thus, as managers express higher optimism in transaction filings (as measured by Diction software’s built-in library), the potential returns for an investor in an acquirers’ stock increases.

Only optimism registers as a significant predictor of returns throughout the near and mid-term horizons. Thus, I narrow in on optimism as the variable of choice moving...
forward. None of the others are close to significance. I recognize that the R-Square is very low; however, this is understandable as these returns are abnormal, and anything indicates returns above what is expected as accounted for above.

Table 12: Size Effect Application in Transactions

Table 12 answers the question that the relevant size of a target to its acquirer might influence optimism as a predictor of returns (BHARS across different horizons). Table 12 displays regression coefficients and p-values for the sentiment optimism across time. Optimism and relative size are initially tested individually. Then, the two variables are considered interacting with one another. Significance at the 10%, 5%, and 1% level is shown with *, **, ***, respectively.

In the test results in Table 12, relative size of target to the acquirer is very close to significant negative correlation at the 10% level. This indicates along with prior literature that as the relative size goes up (the target company is larger in comparison to the acquirer), the future returns are negatively impacted. However, when considered in conjunction with optimism, the coefficient becomes significant, being influenced strongly by the optimism sentiment. These results show how the larger the transaction is relative to the acquirer, the more difficult abnormal returns become. However, if optimism is truly a significant predictor of long-term returns, I expect the returns to be amplified on the larger relative transactions, as indicated by these results.

Conclusion

Textual analysis in M&A related SEC filings has been performed historically in finance literature. This paper asks if particular “soft” qualitative data within the text of DEFM14A and DEFM14C documents can predict post-filing abnormal returns. The main underlying idea for my thesis is that firms with more specific and concrete strategic rationales for M&A activity are more likely to generate economic wealth via the transaction leading to better future returns.

To answer this question, I created a comprehensive dataset of these M&A filings and collected information about each transaction along with the estimated returns for acquiring firms’ returns. I then utilized the pre-determined sentiment libraries of the Diction software to identify key significant predictors of future returns. These statistically significant results pointed toward, and then focused around positive correlation between optimism and long-term returns. As management expressed more optimistic language in these SEC filings, returns improved across the 60-day and 90-day returns. These firms which express optimism toward transactions – most specifically in the technology and telecommunication industry groups – are most likely to experience superior subsequent returns to the M&A filings.

A general lack of statistically significant correlation in textual analysis indicates market efficiency on a broad scale, as a significant portion of the market’s reaction to M&A transactions is processed in the returns immediately following the announcement. However, the specific results indicated in this paper display market inefficiencies that exist in the pricing of acquiring firms’ stock following the public release of corporate M&A filings. I also presume this lack of significance may be due to the sheer number and diversity of factors considered in M&A transactions. M&A strategy may be delineated in proxy letters to shareholders, while other managers choose to refrain from long-winded explanations of transaction rationale, instead inferring that the shareholders already see crossover and logic behind the merger or acquisition immediately following the transaction announcement. Many institutional shareholders may have already discussed merger particulars with company management, factoring this strategic information and the management sentiment into the stock prices.
Importantly, I note that this study speculates a relationship between sentiment variables and returns across a number of investment horizons. This study has not determined causality, nor professes that it does. Rather, this study explores the relationships between these sentiment variables and post-filing returns to determine correlation. The true abnormal returns associated with M&A transactions are more likely driven by the skill, ability, or experience with M&A strategy that management at the acquiring and target firms have. These transactions may experience more accurate forecasted synergies, or be rooted in economically sound, strategic reasons. At face value there is clearly a statistically significant relationship between optimism and returns, but I observe this is likely driven by latent variables.

Previous applications of textual analysis in M&A filings have been applied sporadically to various texts, including documents outside of the DEFM filings. Methodologies used have varied from the method I used, and thus, these results are varied. The results described in this paper indicate general weak and infrequent correlation with M&A documents; however, in particular settings and over different horizons, statistically significant correlation exists between optimism and post-filing returns. As such, an investor who utilizes this strategy of textual analysis followed by investing in acquirers who express the strongest optimism may experience superior returns – and thus, text may be used to predict successful returns to investors in M&A transactions. Applications of textual analysis in M&A filings will continue to improve as software programs improve. There is still much more to be studied to gain a complete picture of all the causes of positive post-filing returns, yet strategy and intention revealed through sentiment will continue to remain a viable method in investing.

Edited by Evan D Poff
The Benefits and the Risks of Multi-Level Marketing

By Jacob Thorpe

About two years ago, I was recovering from a bout of a fairly serious illness. I was bed-ridden for over a month. It took me almost two months to feel healthy enough to even go back to work. When I returned, I suffered from many of the symptoms that persisted, such as fatigue, nausea, and headaches. One particularly tough day, I made a mention of this to a coworker of mine. A lady at the desk next to me overheard me talking about my situation. Before I could even process what was happening to me, I was being swarmed by middle-aged women who doused me in the sharp scents of eucalyptus and peppermint. They explained to me the numerous healing properties of these oils, and that before I knew it, I’d be feeling back to my old self.

Not one month later, my mother-in-law had a cold. Some well-intentioned ladies in her neighborhood caught wind and had brought over to her an essential oil diffuser along with the priceless frankincense oil, which along with strengthening the immune system, has “been known to prevent cancer” (at least that’s what they said). While I am not here to refute the validity of homeopathic remedies, I do believe that although the business models of these multi-level marketing companies create many jobs and even financial stability for some distributors, inherent risks exist that we must be wary of.

Multi-level marketing (MLM) is a way that some companies market their products and services by means of self-employed distributors who typically work from home, sell products to end consumers, and recruit, motivate, and educate new distributors to do the same. These distributors can also make money by recruiting and training other distributors, creating something called a “downline” from which they will earn an override on their sales that they make as well as their downline and so on and so forth (Grob & Vriens, 2017). This pyramid-shaped hierarchy is utilized in almost every direct-selling company because of its effective way of motivating and incentivizing distributors to grow their own business.

Utah, especially Utah County, has become a hot bed for MLM’s. Capitalizing on the close-knit sociality that exists especially in Utah County, members of the community are caught up in the vision of making lots of money fast! These MLM’s not only include essential oils, but also...
encompass door-to-door sales companies. MLM business models incentivize their salespeople to bring more sellers to their companies. Because of the closer-than-average communities that exist in Utah County and the unique religious climate, people are more likely to participate in and support their friends in their efforts to grow their own business.

Benefits of an MLM Business Model

Multi-level marketing has some clear benefits that make it not only profitable, but also attractive to potential members. First, participants are often referred to as “business owners.” The idea that somebody can join an organization, gain a support group, and run their own company is obviously extremely attractive. They can essentially run their own independent business while enjoying the camaraderie that exists in these organizations. Those who do it well are able to make an excellent income, gain a support system, and create financial security moving forward. These companies will typically have a large geographical footprint, and many of these companies do extremely well overseas because of their ability to provide opportunity to third- and second-world countries.

Another popular type of multi-level marketing company is the door-to-door selling business, which is incredibly popular in Utah. Drawing upon the throngs of returned LDS missionaries who are not intimidated by the prospect of knocking on strangers doors, door-to-door companies are able to give students an opportunity to leave home for a summer and make a solid income which they can use throughout the year as they go to school. Not only can they make a lot of money fast, but they also can recruit friends to sell with them. The recruiters of these new employees receive an override on the sales of these recruits. By increasing their downline, sales representatives can actually make more by increasing their override on the sales of these recruits. By increasing their downline, sales representatives can actually make more money from their sales.

Dangers of an MLM Business Model

While the benefits of MLM’s are clear and indisputable, inherent dangers exist whenever this direct selling takes place. MLM’s give regular people the opportunity to “own their own business.” As I previously stated, homeopathic remedy companies in the area are great examples of this. Despite best efforts of these companies to protect their reputation and credibility, their business model makes it near impossible to ensure integrity in each transaction with their employees. For example, enthralled with visions of a new millionaire lifestyle, Debbie from book club has the chance to sell product to her friends, associates, and members of the PTA. In these MLM’s, there isn’t any oversight in the individual transactions. In other words, Debbie can tell her friend that “peppermint oil cured my son’s ADD!” There is no FTC to enforce integrity in this transaction.

Before long, after hearing of Debbie’s monthly residual income, Debbie’s friend decides that she too wants to “own her own business.” Unfortunately, because of Debbie’s statement that peppermint oil cured her son’s ADD, the friend innocently perpetuates the unconfirmed claim, and her whole downline sustains its unstoppable momentum.

In door-to-door sales, the integrity of the sale is the sole responsibility of the salesperson. For all the effort these direct sales companies put into company culture and values, these organizations have no ability to regulate or monitor the claims that these salespeople make. The FTC has attempted to enact certain remedies for this. In door-to-door sales, because they are unexpected encounters, the FTC has created something called the “Cooling-Off Rule.” The rule gives you a three-day right to cancel a sale made at someone’s home or workplace, or at a seller’s temporary location — like a hotel room, convention center, fairground, or restaurant (Tessler, 2015). This provides a grace period where buyers have the opportunity to change their minds. Nonetheless, unethical direct selling persists as enthusiastic salespeople will say whatever customers want to hear in order to make the big sale.

Because of the direct sales piece of the MLM business model, monitoring and managing the validity of the advertising claims of their employees is nearly impossible. In the case of Debbie from book club, her inaccurate perception and communication of the benefits of her product could very well convince somebody to invest as a distributor. Regardless of whether or not the company intends these claims to be perpetuated to drive revenue, the purported claims by its distributors do impact its reputation and credibility with the general public who recognize the invalidity, creating a very uncomfortable situation with consumers. Furthermore, I am confident that Debbie’s company’s CEO would be equally as uncomfortable if he heard the enthusiastic claims that Debbie made. Unfortunately, despite the countermeasures that have been enacted, neither the CEO nor the FTC can monitor Debbie and her downline.

Similarly, despite the effort to create a door-to-door team culture of integrity and honesty, a company’s CEO cannot follow their sales reps around, ensuring their honesty in the transactions that they conduct to pad their pockets. Sales reps can act unethically so long as the person buying their product doesn’t realize the dishonesty or doesn’t make a fuss about it. Because of situations like these, we must be extremely cautious in the validity of the claims that people make, especially in situations where the advertising is by mouth (direct selling) and not by paid-for advertisements, such as print or online.
AN ECONOMIC ARGUMENT FOR ACCEPTING REFUGEES

BY MICHAEL JARMAN

Per refugee in sustaining costs (Legrain, 2016) and the EU once accepted approximately 300,000 refugees in a single year (BBC, 2016). Considering these numbers, a picture begins to emerge of the enormity of the economic burden sustaining costs represent.

The purpose of integration costs is to help refugees become part of their new communities through programs such as language classes, community events, and job seekers assistance. A recent State Department report found the most significant indicator of financial success among refugees was the number of informal connections they had with non-refugees in their neighborhood (U.S State Department, 2017), thus the more integrated they become, the more likely they are to succeed financially.

Governments often fall into the trap of refusing to spend money on integration costs, since they have already spent so much on sustaining costs. They ironically exacerbate their long-term expenses by refusing to provide refugees with the tools they need to become self-sufficient.

Benefits

Investing in refugees will bring about substantial economic returns in the long run. The German Institute of Economic Research has calculated that Germany will experience a .5% increase in GDP within ten years as a direct result of accepting more refugees than any other European country (Fratzscher & Junker, 2015). Their research (figure 1) shows even in the most pessimistic scenario Germany’s refugees will have a net positive effect on Germany’s economy within that ten-year span.

Costs

Accepting refugees comes with two types of costs; sustaining costs, and integration costs. Sustaining costs, which are much larger than integration costs, are the expenses associated with providing necessities, like food and housing, to displaced persons. As an example of the scope of these costs, the EU spends about $12,900 per refugee in sustaining costs (Legrain, 2016) and the EU once accepted approximately 300,000 refugees in a single year (BBC, 2016). Considering these numbers, a picture begins to emerge of the enormity of the economic burden sustaining costs represent.

The purpose of integration costs is to help refugees become part of their new communities through programs such as language classes, community events, and job seekers assistance. A recent State Department report found the most significant indicator of financial success among refugees was the number of informal connections they had with non-refugees in their neighborhood (U.S State Department, 2017), thus the more integrated they become, the more likely they are to succeed financially.

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The increase will come from three primary sources:

- Increasing demand created by refugee spending
- The positive effect of refugees on the job market
- Immigrant diversity

**DEMAND DIVIDENDS**

Government spending on both sustaining-costs and integration-costs affects the economy in a similar manner to a stimulus package. The money is distributed at the grassroots level throughout the economy, directly benefiting those who live and work closely with the refugees first. One Harvard researcher found the economic activity of refugee camps increases the income per-capita of their host communities by as much as a third (Taylor, 2016). The IMF calculated that money spent on refugees increased total EU GDP by as much as .13% in 2017 (Aiyar, et al., 2016), an additional increase of .12%.

**REFUGEES AND THE JOB MARKET**

Opponents to accepting refugees often make two contradictory claims made about how refugees affect the job market. One is that refugees will not be able to get jobs and therefore will remain a burden to society; the other is that refugees will get jobs but will flood the job market and lower the pay of native workers. Neither is true. While language barriers do make it harder for refugees to get jobs, they compensate by being willing to participate in 4D jobs; that is, jobs which are dirty, difficult, dangerous, or dull (Legrain, 2016). These jobs are necessary for society to function but are typically considered distasteful.

A longitudinal study conducted in Denmark found that refugees mostly filled unskilled or low skilled positions within the economy, but the influx of low skilled workers had no adverse effect upon the wage levels or employment rates for locals. In fact, the study found that when refugees filled all these low skilled positions, it pushed local workers into higher paying jobs with greater mobility (Foged & Peri, 2013). Economists conducted a similar study in Turkey, which has received more than 2 million refugees since 2011 and showed that when refugee saturated the low-skill job market, they created higher paying job opportunities for locals. Because of refugee integration into the job market, the average wage of a formal Turkish worker increased by 5% (Del Carpio & Wagner, 2015).

Refugees don’t just take jobs; they also create jobs (Legrain, 2016). Refugees spend the money they earn in these low skilled jobs, and the resulting increase in demand creates the need for more workers in more positions. So, while locals are often forced out of low-skilled jobs by refugees, they are forced into much more profitable work (Foged & Peri, 2013).

**FIGURE ONE**

**INTEGRATING REFUGEES INTO A COUNTRY – POSSIBLE SCENARIOS FOR ECONOMIC GROWTH**

![Graph showing economic growth scenarios]

**DIFFERENT AND CREATIVITY**

Refugees have multi-cultural backgrounds and distinctive experiences that provide each of them with a unique perspective (Fratzscher & Junker, 2015). These differences have led to an unusually high number of successful refugee entrepreneurs. The Kauffman Foundation produced a study on immigrant entrepreneurs (both refugee and non-refugee) showing immigrants to be twice as likely to start a business than a U.S. native (Legrain, 2016). More than 40% of the Fortune 500 companies were founded by either a first or second-generation immigrant (Legrain, 2016). Some notable refugee entrepreneurs include Sergey Brin, a refugee from the Soviet Union and co-founder of Google, Jan Koum, a refugee from Ukraine and co-founder of WhatsApp, and Andy Grove, a refugee from Hungary who helped found Intel.

**SUGGESTED POLICIES**

**PROVIDING SUPPORT**

Direct Government support needs to be more effective than it currently is. For example, organizations should give cash to refugees instead of the opting for the much more common method of “in-kind” support. They provide refugees with necessities, such as food or medicine, instead of by giving them cash and allowing them to purchase necessities themselves. Cash support is much more efficient because refugees will spend the money they receive at local businesses, increasing the quality of life for their host communities. A Harvard study conducted in Rwanda found when refugees were given cash directly, the income of host country households increased by as much as $69 per refugee (Taylor J. E., 2016).

**INTEGRATION**

The most pervasive barrier to refugee integration is non-inclusive job markets. Only four countries currently allow asylum seekers to apply for jobs uninhibited, and many states will not let them work until they have dealt with 1-3 years’ worth of red tape (International Monetary Fund. European Dept., 2016). These policies increase the amount of time it takes for refugees to become contributors. In contrast, refugees in Turkey are allowed to contribute to the economy almost as soon as they enter the country, leading to the previously mentioned increase in Turkish wages.

Implementing job training programs will also increase integration by streamlining the process by which pre-trained refugees could begin working in
professional careers. At least 26% of the refugees in the EU have received at least a university education before displacement (Taylor J. E., 2016), and would be able to provide valuable service after being trained on local policies and language. Training an educated refugee is also extremely cost-effective. For example, the cost of preparing a medically trained refugee to work in the U.K. is $25,000, which is only 10% of what it costs to train a new British doctor (Legrain, 2016).

**CONCLUSION**

Taking in refugees does require a substantial financial investment. Caring for hundreds of thousands of people, many of whom can carry all their possessions on their back, costs a lot of money. When considered against the long-term benefits, however, the initial cost is revealed to be an investment. This investment can bring about a higher quality of life for everyone involved if it is nurtured and sustained by prudent and integrative policymaking.

Many countries will miss out on this great opportunity by not accepting refugees, or a country will accept refugees but will struggle under the economic burden of sustaining refugees. Investing governmental funds solely into sustaining-costs instead of integration costs will perpetuate a state of dependency within refugee communities. However, those countries that accept refugees and then encourage integration by paying integration costs and by relaxing work policies will see immediate and long-term dividends.

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**Notes**


IN RECENT DECADES, the human ability to leverage the sun has expanded well beyond tanning and flying ants on the sidewalk. Revolutionized technology and research has both illuminated sustainability issues and provided potential solutions, many of which are being successfully implemented. Within suburban neighborhoods, it is common to see solar panels on every other house, wind turbines on visits to the beach, and see cars pulling in to electric charging stations. Perhaps the most accessible, realistic and reliable source for the everyday American is solar energy.

Pinpointing an exact date of the creation of solar panels is almost impossible, considering the vast number of contributors to the research and engineering thereof. From the invention of the solar cell by Edmond Becquerel to the discovery of selenium-created electricity to Albert Einstein's publication of the photoelectric effect, the steps leading to the modern concept of solar energy began in the late eighteenth century.

Today, there is overwhelming evidence of the work of those contributors coming to fruition. Taking a look at the increase in solar panels in the twenty-first century, the annual increase from 2000 to 2008 is almost negligible. Yet the statistics beginning in 2009 mark the beginning of a new story. That year, the American Recovery and Reinvestment Act was passed by President Obama, providing almost $90 billion for renewable energy advancement.

The statistics give hope for an increasingly green future, although a sudden decrease in the growing rate of solar energy capacity in North America in 2017 comes as a surprise. A potential reason for the suddenly stunted increase in solar energy growth was clarified by a former Vivint Solar employee. According to the employee, solar panels required zero cash down in America up until 2016. But in 2017, a price increase led to a decreased rate of solar energy growth. Although solar panels still eventually pay for themselves through lower energy bills (and the ecological benefits may prove to be priceless), the price tag still deters customers.

Despite North America having been a global leader in renewable energy, Asia takes the #1 spot, with China at the forefront. In 2011, China's solar energy capacity began to take off. Yet Asia has managed to keep a very consistent increase and has risen to more than seven times the solar energy capability of North America in 2017. Although the extreme difference between these two continents can partially be explained by a difference in population density, it is still clear that Asia is in the lead.

The reasoning behind this may be answered in part by the high likelihood that the tag on your shirt reads, "Made in China." As a manufacturing metropolis and Asia's leading country in solar energy, China produces a high number of solar panels annually and has managed to increase national solar capacity by remarkable proportions and investments in renewable energy. Last year, China accounted for over half of the overall global investment in solar energy, demonstrating their commitment to a green future, as well as confidence in the economic benefits. With the United States' recent withdrawal from the Paris Agreement, China has unofficially become the leader within the agreement that over 150 countries have accepted. With constantly debated politics and opinions, it remains to be seen if China's recent success will motivate the United States to take another look at its sustainability efforts, moving the United States forward in the solar energy race.

Notes

Frogesal, Annel, "China becomes a ‘driving power’ for solar energy with $86.4 billion invested last year," UCM, April 4, 2018, http://www.reuters.com/china-becomes-a-driving-power-for-solar-energy-with-the-power-to-balance-mixed-larry YEAR16168


The Road to Solar Power.

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"China becomes a ‘driving power’ for solar energy with $86.5 billion invested last year, " CNBC, April 6, 2018, https://www.cnbc.com/2018/04/06/china-becomes-a-driving-power-for-solar-energy-with-86-point-5-billion-invested-last-year.html.


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Duarte’s book doesn’t stop with this cerebral, life-changing insight. No, she gives the reader practical and easy ways to incorporate these seemingly difficult principles into the previously boring, tedious, and hard-to-sit-through business presentation. This process takes more time analyzing the audience and defining the journey of discovery the presenter wants them to experience. Also, the presentation must have creative and meaningful content that is ordered for impact, that produces emotional contrast, and that creates a S.T.A.R. moment (Something They’ll Always Remember).

This seems like an impossible task. Yet, Duarte gives the reader example after example through case studies and stories of how to practically implement these principles. The book is very visual, illustrating the impact of good visual design which plays an important role in storytelling. For example, the reader is given five types of S.T.A.R. moments to be used in a presentation (e.g., memorable dramatization, repeatable sound bites, evocative visuals, emotive storytelling, and shocking statistics) along with famous S.T.A.R. moments that the reader will remember.

Why should we put in all this extra work into our presentations? Well, if we spend the time, we may gain a competitive advantage over others and promote our ideas. Duarte says it herself, “If presented well, a smart idea acts as the igniting spark for an explosion of human and material resources” (p. 203). The promise of transforming the world seems to be a rather tall order. Through her book Resonate, Duarte makes this promise seem possible.

Essence: The core of essentialism is recognizing that there are trade-offs, that we must make choices, and that only a few things really matter. Businesses and employees are frequently burdened by unnecessary tasks that they mistake for required activities. When they realize that they cannot do everything, they reach a higher level of contribution.
Most startups fail. Unfortunately, that's the bitter truth. Groundbreaking products and services fail to penetrate the world of the consumer. Those that do are quickly drowned out by a plethora of imitations and substitutions. Why do businesses fail so often?

According to serial entrepreneur, philanthropist, and co-founder of PayPal Peter Thiel, the simple reason is because they fail to go from zero to one. Startups fail to differentiate themselves and captivate their audiences. Instead, they enter a world of competition — going from zero to one of many.

Going from zero to one (and only one!) requires one thing — a monopoly.

Monopoly

Thiel unapologetically writes "capitalism and competition are opposites." Capitalism focuses on generating profits. Competition focuses on eliminating your opponents, commonly through undercutting them with lower prices.

However, lower prices lead to lower profits. Therefore, monopolies are ideal for the entrepreneur because they generate high profits and avoid competition. Building a monopoly starts on the individual level. Most of us go through school learning a little about everything while excelling at nothing. By focusing on building out specific and unique skills, we come closer and closer to developing that zero-to-one business idea.

This is only the beginning. Thiel counsels that the business idea needs to fulfill the needs of a niche market and provide a 10x speed or convenience solution. Only then will the startup break into the world of the consumer. Creating your monopoly is one thing; maintaining it is another.

Maintenance of a monopoly requires three things: (1) network effects, (2) economies of scale, and (3) branding. Network effects refer to the value of your business idea. The more people who use your product, the more valuable it becomes. Thus, your would-be imitators have difficulty in providing a substitute product. Economies of scale refer to your costs. The larger the scale of your production, the smaller your average cost per unit. Smaller competitors attempting to gain market share do not earn a profit and are essentially shut out. Branding refers to the perception of your product. By building a strong brand early on, competitors will need a higher upfront investment to create awareness for their product. Thiel believes that through monopoly, startups can achieve the great successes they were meant to be.

Conclusion

In speaking with several startup founders, one topic always brought up is competition and how to beat it. Although no single right answer exists, Thiel's argument for the monopoly is very compelling. Because monopolies have little to no competition, business owners have the freedom they need for innovation. The problem these founders face is that while, in theory, monopolies are the ideal, they are difficult to build and even harder to maintain. As more and more businesses come into existence, innovation will be the gate to survival, and the monopoly may very well be the key.
In 2011, President Boyd K. Packer gave us a promise of a bright future ahead: “Sometimes you might be tempted to think as I did from time to time in my youth: ‘The way things are going, the world’s going to be over with. The end of the world is going to come before I get to where I should be.’ Not so! You can look forward to doing it right—getting married, having a family, seeing your children and grandchildren, maybe even great-grandchildren.” There is a promise of a bright future ahead, no matter what we read in the news.

—Dr. Marianna Richardson