Forefront

ISSUE 3 | 2019

Inside:

O'Keefe

Clarity. Results. Together.

When hands-on guidance and exceptional performance are a must, organizations turn to the experience of O'Keefe. We're your partner for success. Our culture of collaboration and problem solving is unmatched. We craft solutions that produce impressive bottom-line results... even in the most complex situations.

We invite you to learn more at www.okeefellc.com

O'Keefe
Clarity. Results. Together.

Forefront

ISSUE 3 | 2019

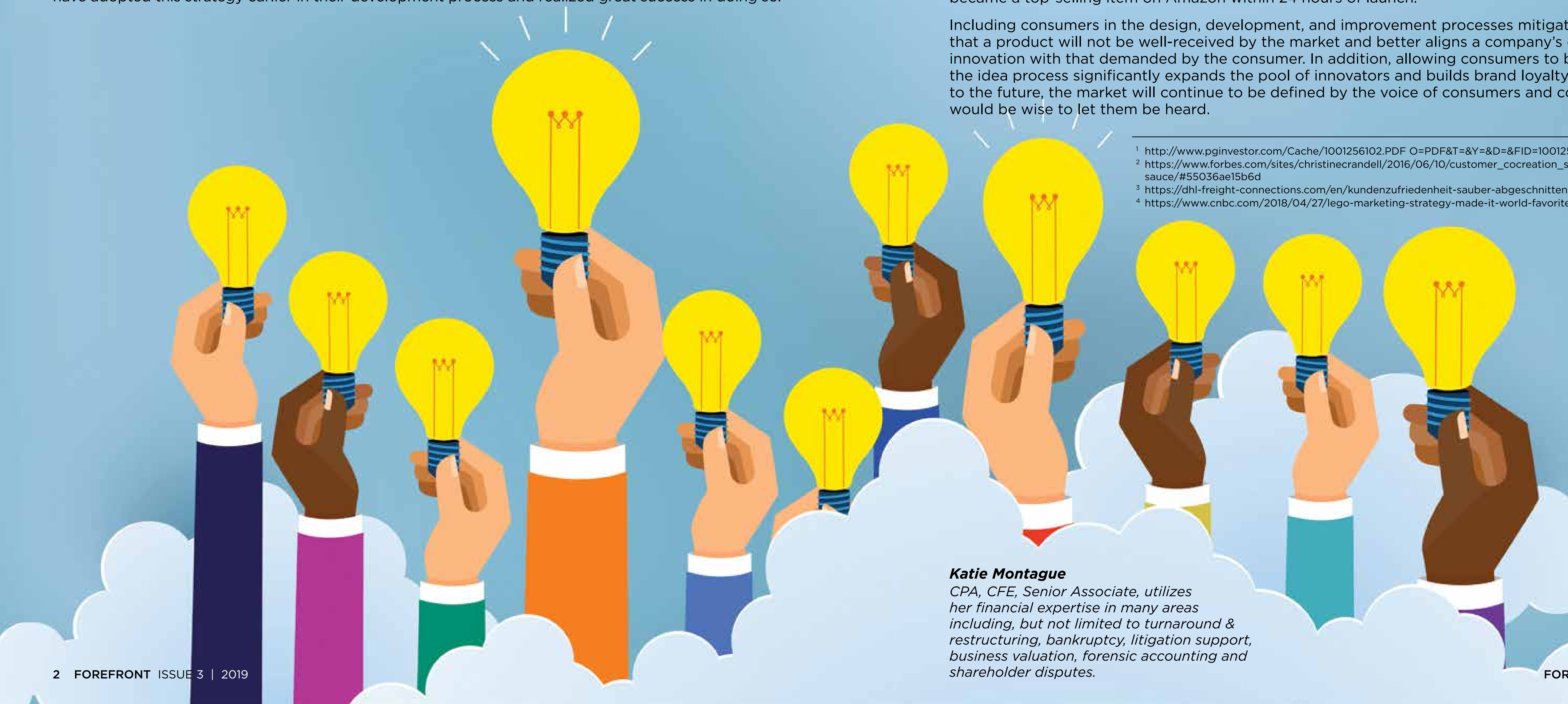
We live in the age of disruption. How we acquire goods and services, communicate with others and how we live changes every day. Millenials have figured out utility is more important than ownership. The largest retailer owns very little brick and mortar, the largest transportation company owns no cars, the largest vacation home company owns no real estate. These companies sell convenience and usage. The economy continues to change with a variety of disruptors. The newest producer of meat products owns no cows. Technology disruptors have crushed employment in fast food, retail, and service centers. With the advent of autonomous vehicles, truck drivers may become extinct. All of these are middle class jobs. Small wonder why this class is disappearing. As a result, how does middle America survive and will it require more social programs? People need hope. Hope for a better life, a better next generation. Businesses know hope is not a strategy. Successful companies will develop strategies to further their sustainability in light of an ever-changing environment. Information is the new capital. Most companies discount the importance of developing good data and are ill-equipped to strategize until they get into trouble. This issue of Forefront deals with the changing landscape to get our market to understand how these changing dynamics are moving fast. We hope you will enjoy these thoughtful pieces from our team. ~ Patrick O'Keefe

Crowdsourcing Innovation

By Katie Montague

In this digital era, demand for innovation is greater than ever. While consumers are searching for that next best thing, companies are against the ropes trying to provide it, sometimes performing a balancing act between innovation and the certainty of commercial success. This formula for product development defines companies as the innovators and limits the consumer's voice to complaint forms or online reviews after the product has been released. This worn-out formula is starting to change.

With social media and smart technology creating ultra-low-cost information exchange between companies and their customers, companies have increasingly crowdsourced ideas for new products. For companies, this pivot in strategy shifts the notion of product development from something they hope the market wants, to something they know the market wants. Simultaneously, consumers get what they want. Some companies have adopted this strategy earlier in their development process and realized great success in doing so.



Procter & Gamble:

initiated "Connect + Develop," an online platform where anyone can submit an idea, encouraging this consumer-led innovation. P&G created Connect + Develop with a goal of 50% of innovations coming from external sources. Connect + Develop hit that goal within four years of launch and continues to be a significant source of product ideas and revenue. Boasted in P&G's 2019 annual report, a "consumer-led innovation helped Olay deliver two consecutive years of strong double-digit organic sales growth in China." [1]

DHL:

a global logistics leader, is another great example of a company meeting consumer needs by using their own ideas in the innovation process. DHL has "Innovation Centers" located around the world. The centers provide a meeting space for internal and external innovators to share ideas. The parcelopter, a drone used for deliveries over challenging terrains, is a product of an Innovation Center. [2] Since the global expansion of the Innovation Centers, DHL's customer satisfaction survey has been steadily rising, resulting in higher customer retention and a stronger reputation in the market. [3]

LEGO's platform:

LEGO Ideas, allows consumers to submit their own ideas. LEGO takes consumer-led innovation a step further by allowing other consumers to vote on the submitted ideas. Ideas that get 10,000 votes will be reviewed by LEGO and potentially put into production. The initial creator of a successful product has rights to final product approval, the opportunity to be recognized on the product's packaging and marketing, and may receive a portion of its sales. The company has successfully launched two dozen customer ideas. One of those products, "Women of NASA," became a top-selling item on Amazon within 24 hours of launch. [4]

Including consumers in the design, development, and improvement processes mitigates the risk that a product will not be well-received by the market and better aligns a company's concept of innovation with that demanded by the consumer. In addition, allowing consumers to be part of the idea process significantly expands the pool of innovators and builds brand loyalty. Looking to the future, the market will continue to be defined by the voice of consumers and companies would be wise to let them be heard.

---

1 http://www.pginvestor.com/Cache/1001256102.PDF O=PDF&T=&Y=&D=&FID=1001256102&iid=4004124
2 https://www.forbes.com/sites/christinecrandell/2016/06/10/customer_cocreation_secret_sauce/#55036ae15b6d
3 https://dhl-freight-connections.com/en/kundenzufriedenheit-sauber-abgeschnitten-2/
4 https://www.cnbc.com/2018/04/27/lego-marketing-strategy-made-it-world-favorite-toy-brand.html

Katie Montague
CPA, CFE, Senior Associate, utilizes her financial expertise in many areas including, but not limited to turnaround & restructuring, bankruptcy, litigation support, business valuation, forensic accounting and shareholder disputes.

ALTERNATIVE MEAT: WHERE'S THE BEEF?

By Violeta Zdravkovic

Where's the beef? No longer in cows, apparently. The alternative meat market is on fire in 2019, continuing to build on momentum to disrupt the approximately $1.4 trillion meat industry. According to Barclays, alternative meat is estimated to reach $140 billion in the next decade as emerging companies capture a 10% share of the market.[1]

One company leading the way is Beyond Meat. Beyond Meat was founded in 2009 and went public in May 2019 at $25 per share. The stock reached a high of $239.71 on July 26 but has continued to drop since then and closed at $158.97[2] at the writing of this article. Beyond Meat's market capitalization was approximately $1.5 billion in its IPO, but is now valued at $9 billion. Beyond Meat's most notable competitor is Impossible Foods, which was founded in 2011 and has many noteworthy investors including Bill Gates (also an investor in Beyond Meat) and many other notable celebrities. To date, Impossible Foods, a privately held company, has raised about $700 million in capital and is valued at $2 billion. Recently, Tyson Foods, the largest meat processor in the United States, announced that it was going to offer its own line of meatless products.

So, what is alternative meat? The alternative meat industry has duplicated the proteins and flavor of meat by finding substitute proteins in plants. The result is a plant-based meat substitute designed to look, cook and taste like meat in order to attract meat eaters. As the global demand for meat continues to rise, so do concerns about the environment and other effects caused by consumption of meat products from animals. Those effects include human health, climate change, constraints on natural resources, and animal welfare. Experts say that sustaining a healthier planet will require a shift towards more plant-based diets.

The University of Michigan's Center for Sustainable System conducted a study of a "cradle-to-distribution" life cycle assessment of Beyond Meat's Beyond Burger in comparison to a ¼ pound U.S. beef patty. The study concluded that the Beyond Burger requires 99% less water; 93% less land; generates 90% less greenhouse gas emissions; and requires 46% less energy than the beef burger. The study was commissioned by Beyond Meat and was published in September 2018. Impossible Foods commissioned a similar study from another research company that produced similar findings.

Meatless ground beef, sausage, hamburger and chicken products have yielded positive consumer reaction. What used to be considered "weird" and only for vegans and vegetarians ("tofurkey" and "gardenburgers" come to mind) has now become mainstream with even meat eaters. Today, you can find meat alternative products in thousands of grocery stores and restaurants ranging from fast food chains to high-end restaurants. Vegan alternatives previously stocked in the specialty food section in grocery stores are now stocked alongside competing meat products. As for restaurants, Burger King introduced the Impossible Whopper this year in a test market. Even though it commands a higher price than the regular Whopper (plant-based meats are more expensive because the industry is young and has yet to achieve economies of scale), the demand was so great that it will be served nationwide. Other restaurants selling Impossible Burgers, in select locations, include Applebee's, The Cheesecake Factory, Red Robin, and White Castle to name a few. In August 2019, Kentucky Fried Chicken announced that it was going to test Beyond Fried Chicken in partnership with Beyond Meat in one location in Atlanta. Customers started lining up at 8:00 a.m. and the lines wrapped around for blocks. It sold out of the product in five hours.[3] Beyond Meat has also lined up deals with chains that include Subway, Dunkin,' and Del Taco, among others.

As can be expected, not everyone is excited about the alternative meat industry. Although meat producers do not see it as a threat, they are petitioning the USDA to prevent labeling the products as "meat" unless it comes from animals. Mississippi and a few other states have banned using meat-based terms on the package labels of plant-based foods. These labeling laws have sparked legal challenges by The Plant Based Food Association and others. As a result, Mississippi is proposing new rules to allow plant-based foods to comply with the ban on using meat-based terms by using a "comparable qualifier" on the package labeling such as "meatless" or "meat-free."[4] Whether the other states will follow with their own "comparable qualifier" remains to be seen.

Meat producers also dispute the findings regarding meat production on climate change and the use of natural resources. What does the United States Cattlemen's Association say? They have a different view. Cattle graze on land unfit for farming and is a low-cost alternative to feed the world. Still others are conflicted about the industry. On one hand, they are in favor of alternative meats due to the positive effects on the environment and animal welfare. But they are also against the use of genetically modified organisms (GMOs), such as the ingredient "heme" that is used in the Impossible Burger. GMO products are banned in many countries. The health attributes of alternative meats continue to be debated. Plant-based burgers are highly processed and are much higher in sodium than traditional burgers. As an example, a Whopper has 980 mg of sodium while an Impossible Whopper has 1,240 mg,[5] an increase of 26.5%. As a result, the alternate meat companies continue to make improvements to their recipes in order to make them healthier and tastier.

Regardless of where you stand on the alternative meat industry, it is nice to have options for those that may want to reduce their meat consumption but not give it up entirely.

[1] https://www.marketwatch.com/story/alternative-meat-market-could-be-worth-140-billion-in-ten-years-barclays-says-2019-05-22

[2] NASDAQ Quote on September 16, 2019

[3] https://www.yahoo.com/lifestyle/kfc-sold-plant-based-chicken-213308346.html

[4] https://www.fooddive.com/news/mississippi-considers-changes-to-plant-based-meat-labeling-law/562547/

[5] https://www.businessinsider.com/beyond-burger-vs-impossible-burger-vs-fast-food-burger-nutrition-2019-6

Violeta Zdravkovic
CPA/ABV/CFF, CFE, Managing Director, specializes in litigation support, forensic accounting, fraud investigations, mergers and acquisitions, business valuations, insolvency/ bankruptcy and turnaround management.

DRIVING DATA

FROM HORSEPOWER TO CONNECTIVITY

By Susan Koss

The automotive industry is in the midst of a transformation unlike any experienced in the past. While it used to be that "horsepower" was most important to car buyers, nowadays it's all about "connectivity." As consumers are expecting their vehicles to perform tasks similar to computers and smartphones, the integration of connectivity solutions in the vehicle has become a disruptor for original equipment manufacturers (OEMs). Finding the right business model for connected services is a challenge for today's OEMs given the increased technological advancements in autonomous and electric vehicles and new legislation in the areas of safety regulations, cyber security and data privacy. However, the integration of connectivity solutions also provides great opportunity for OEMs to monetize the data it generates.

As the amount of software innovation in vehicles has escalated to manage performance, fuel efficiency, and emissions, so has the amount of data vehicles can capture. OEMs can potentially realize enormous benefits from real-time assessment of vehicle parts which are likely to fail and when. For example, Tesla's electric vehicle lineup can now self-identify maintenance needs and preorder parts to fix them.[1]

This real-time data from vehicle sensors can help OEMs and dealers become more efficient with parts inventory management and labor utilization. In addition, OEMs can utilize such data in predictive modeling to better manage potential warranty and recall issues and thereby minimize cost.

Currently, certain auto insurance companies use tracking devices on vehicles to monitor driving behaviors of customers in order to assess risk and price premiums. Tesla recently announced that it too will collect data on owners' driving patterns to price its own insurance products this year.[2] But Tesla is not alone in its quest to collect and subsequently monetize car data. Jaguar Land Rover recently announced a new program that allows drivers to make money in the form of cryptocurrencies by enabling automatic data reporting in their vehicles.[3] And last year, GM launched a feature that detects when a car's fuel tank is low and directs drivers to a nearby gas station, where they'll get a discount on fuel. Gas station chains then pay GM a fee for steering customers their way. Ford recently launched a new service that contracts with companies and municipalities to gather data generated by vehicles used in fleets, such as police cars and delivery vans. The service can track miles traveled and fuel consumption, as well as monitoring driver behavior, such as speeding or seat belt use. The auto maker then sells the data and analytics to the fleet operators as a service.[4]

Beyond the functions of the vehicle itself, companies have begun implementing data collection of biometrics, such as health monitoring for driver monitoring systems. New sensors can allow vehicles to monitor key attributes of their occupants, including stress levels, heart rhythms, alcohol consumption, and fatigue. Monetizing such data may prove difficult if consumers do not buy into the collection of biometric data, however it is likely that future automotive innovations will present similar trade-offs, where drivers will be required to relinquish some privacy for greater safety.

It has been estimated that monetizing data from connected cars will be worth up to $750 billion by 2030 as more cars are shipped with pre-installed modems and other internet-connected devices. However, monetizing this abundance of operational and behavioral data will have its share of challenges. Automakers will continue evolving to look more like tech companies, with large inhouse data analytics teams used to assess the huge stores of data collected from cars. In addition, automakers will need to build extensive partner networks with cloud providers and data analytics firms in order to maximize the opportunity to monetize car data. Changing consumer demand and data ownership and privacy concerns will also pose challenges for OEMs. Connected car technology will continue to disrupt the auto industry as OEMs and the supply base will need to adjust and adapt in an everchanging environment.

***Susan Koss** CPA/ABV/CFF, CVA, Partner and Managing Director, leads the firm's Litigation Support Practice Group. She specializes in litigation support, business valuation, quality of earnings and forensic accounting.*

---

1 https://www.businessinsider.com/tesla-adding-data-driven-offerings-2019-5

2 https://www.reuters.com/article/us-tesla-markel-insurance-idUSKCN1VQ0FY

3 https://www.reuters.com/article/us-crypto-currencies-jaguar/jaguar-land-roverplanning-to-allow-helpful-car-drivers-to-earn-cryptocurrency-idUSKCN1S40UD

4 https://www.wsj.com/articles/what-your-car-knows-about-you-1534564861

Fortnite and the Battle for Your Attention

By Anson Smuts

The video game industry has evolved far beyond the days of kids inviting their friends over for some multi-player fun around the family television set. These days, video games are about influencers, celebrities, prize money, and social media, as well as the games themselves (of course). These changes to the industry have occurred gradually over time, culminating in one video game in recent years - Fortnite.

Fortnite: Battle Royale was released in September 2017 and has earned its creators, Epic Games, an estimated $4 billion.[1] While other formats of Fortnite are available, the Battle Royale version is by far the most popular. The game involves a last man standing battle on a small island, where players can harvest resources and collect weaponry as the battle area becomes smaller and smaller as the game progresses, thereby forcing players into conflict. The game has now exceeded 250 million accounts and registered up to 10.8 million concurrent users. In 2018 alone, Fortnite earned $2.4 billion in revenue, which was "the most annual revenue of any game in history." [2]

While the top gaming companies continue to solidify their shares of the console and PC market through their blockbuster AAA games, the industry has been flooded by small-scale publishers such as Epic Games. These publishers develop and release games for distribution over the internet for free or a small upfront fee (for play on smartphones, tablets, consoles or PCs). These features of the game have made it extremely accessible and allowed it to build its massive network of users.[3] Although free to play, Fortnite derives revenues through selling an in-game currency (V-Bucks) which players can then use to buy cosmetic additions to their character, such as skins (essentially an outfit for a player's avatar) and emotes (dance moves, often used to taunt other players). In other words, players cannot purchase anything to improve their performance, only to change the look of their in-game avatar.

Basically, if you were to explain how Fortnite makes money in one word, it would be vanity. Not unlike the real world, people desire status, and they're willing to pay for it. A study by LendEDU, published in mid-2018, found 69% of Fortnite players have spent money in the game.[4] On average, these players spent about $85 in the game (thereby spending more than the fixed cost of a traditional game). The most interesting statistic of all, 37% of the players who spent money on in-game purchases had never spent money in a video game before.

The elements of the game – the free platform, the massive user network, the quest for status – are what make Fortnite more than a game – it's essentially a cultural movement that is disrupting the gaming industry. This is visible through the game's influence upon the massive e-sports industry, which essentially involves watching other people play video games, sometimes in tournaments with millions of dollars up for grabs. Some of these elite Fortnite players have become celebrities in their own right, gaining followings in the tens of millions.

As with any video game, the gains made by Fortnite have slowed. At the same time, other companies have rushed to release their own free-to-play multiplayer games to capitalize on the revenue model. Yet the rise of Fortnite has set a new playing field for companies vying for the attention of consumers. In an earnings report from Netflix in December 2018, the streaming company stated: "We compete with (and lose to) Fortnite more than HBO... Our growth is based on how good our experience is, compared to all other screen time experiences from which consumers choose." Considering modern culture is constantly engaged with screen time, we should see some interesting innovation in entertainment in the years to come to keep us hooked!

***Anson Smuts** CMA, CFE, CVA, Director and Senior Economist, utilizes his accounting and finance expertise in mergers and acquisitions, business valuation, intellectual property, and data analysis to identify strategies for business growth and development.*

---

1. https://www.nytimes.com/2019/08/27/business/steam-epic-games-store.html
2. https://www.gamesindustry.biz/articles/2019-01-16-fortnite-tops-2018-superdata-chart-with-usd2-4b-digital-revenue
3. IBISWorld, Video Game Software Publishing in the US – August 2019, pg. 22
4. https://lendedu.com/blog/finances-of-fortnite/

THC vs. Alcohol

An Illegal Substitution? Kind of.

Matthew Rizzo CPA, CVA, Director, has business valuation expertise in various types of transactions including, but not limited to mergers and acquisitions, shareholder disputes and gift tax valuations.

By Matthew Rizzo

There isn't a day that goes by without reading about struggles of the marijuana business and their difficulty finding their place as a partially legal business in some states. The stereotype of illegally selling out of a windowless van or on a street corner is quickly declining. Now, most marijuana businesses are well lit, clean and operating under state & local laws. These businesses are rapidly expanding their product lines in an effort to make a profit that connects with new recreational or medicinal users while hopefully attracting more experienced users away from their current sources. These products include medicines, homeopathic remedies, supplements, vape oils, edibles (gummies, brownies, drinks, etc…) and even clothing lines. Some industries are incorporating THC, the psychoactive ingredient in marijuana, into their products, most notably the beer industry. Ironically, infused beer with THC has to be nonalcoholic. Short's Brewing Company recently teamed up with Green Peak Innovations, a vertically integrated marijuana company that owns grow operations, processing facilities, and dispensaries, to create a line of popular Short's THC-infused beers.[1]

Many studies have been done on whether or not marijuana is a substitute or a complement to alcohol. Many of these studies are based on survey data which can be flawed as people don't always answer honestly, especially about substance consumption that may be illegal. However, three professors from the University of Connecticut, Georgia State University, and Universidad del Pacifico completed a study that used sales data from grocery, convenience, drug and mass distributions stores in various U.S. counties from 2006 through 2015.[2] They studied the impact of medicinal marijuana versus alcohol sales as recreational marijuana legalization data has not had enough of a history for substantive findings. They utilized two methodologies: (1) comparative counties with one county having legalized medical marijuana and the other has not; (2) bordering counties with one county having legalized medical marijuana and the others do not. The study goes into detail about its methodologies which include adjustments for economic factors such as unemployment rates and median household incomes.[2]

The findings are intriguing and certainly point to marijuana being a substitute for alcohol versus a complement. Counties in medical marijuana legal states exhibited a 15% reduction in alcohol sales (beer and wine) versus comparable counties where medical marijuana is illegal.[2] If looking at only counties that border each other there was a 20% reduction in alcohol sales observed.[2] The study also breaks down the effect on beer and wine sales of which both exhibited a 13.8% and 16.2% reduction, respectively.[2]

Another disruptor to the alcohol industry is the recent explosion of hard seltzer products that have taken the nation by storm with White Claw and Truly being the key players. One of the main reasons these new products have become so popular is their low calorie count. Beer is typically a high calorie drink, whereas a hard seltzer has 100 calories in a 12 ounce can.[3] This is putting additional pressure on the beer industry to compete with the hard seltzer revolution. THC-infused beer is the key to creating a lower calorie beer, as THC itself doesn't add any calories unlike alcohol. This lower calorie beer option may be the key in competing with the $550 million hard seltzer industry.[4]

Major beer companies are buying hard seltzer companies to hedge their bets, but are reluctant to get into the THC-infused beer business. Others such as Molson Coors, which is headquartered in Canada where marijuana is legal, intends to participate instead of compete with the marijuana industry.[5] Craft breweries in Colorado, California, and now Michigan have already been brewing THC-infused beers.[5,1]

THC-infused beer could ultimately be an answer to the marijuana industry's threat of stealing sales away. Embracing and incorporating the marijuana industry as opposed to competing with it will put some early adopter beer companies at an advantage. It will likely take time for THC-infused beer customers to openly order without feeling judged which is why restaurant and bar sales of these types of beers will be slow initially. However, store purchases will likely be the preferred method of purchasing for consumption at home until the average consumer views THC-infused drinks as the new norm. Ultimately, consumer acceptance will start off slow, but these products are industry changers.

---

1 Gray, Kathleen; "Short's Brewing teams up with marijuana company to make edibles, beverages;" Detroit Free Press; August 15, 2019.

2 Baggio, Michele; Alberto Chong; Sungoah Kwon; Helping Settle the Marijuana and Alcohol Debate: Evidence from Scanner Data; University of Connecticut, Georgia State University and Universidad del Pacifico, Lima. November 2, 2017.

3 Cruickshank, Heather; "What Is 'Hard Seltzer' and How Unhealthy Is It?" Health News. August 30, 2019.

4 Reinicke, Carmen; "Hard-seltzer sales are booming in the US — and UBS says these 5 beer companies are best positioned to profit from the trend;" Business Insider. July 30, 2019.

5 McDonough, Elise; "Beer Brewers on New Cannabis Beers: 'They Should Just Stop'." Leafly.com. July 15, 2019.

FOREIGN TARIFFS

By Stephen Weber

Over the course of the past 12-18 months, tariffs have become a significant economic disruptor to U.S. business interests. These tariffs impact not only manufacturers, but their customers and employees. They force unpleasant decisions that may not be made during "business-as-usual" economic times.

Tariffs are generally levied by a government seeking to protect their constituent industries from a perceived threat generated by another country's similar industry. Or, as in the case with China, the U.S. implemented tariffs for a number of reasons including perceived dumping of goods below-cost in the U.S., theft of intellectual property by China's government and companies, and to fight against their trade practices against U.S. industries. The overall goal was to reduce the U.S. trade deficit with China.

Thus far, the trade war with China is continuing to rage on. Despite several reports to the contrary, it does not appear to be ending soon.

When tariffs are implemented, we are told that the seller of the goods under the tariff will be paying the cost of the tariff. However, many times, this is not the case. In the short term, sellers may not be able to transfer the cost of the tariff to the purchaser and contractual rates may lock in a good's price. As time goes by, cost of the goods will rise to recoup the cost of the tariff, and the goods will be more expensive to the purchaser unless an alternative supplier (not under the tariff) can be secured. Securing an alternative supplier takes time and energy. Additionally, the product being supplied by the alternative supplier may not have the quality of the original part under tariff. This can also lead to an increase in costs. Eventually, the cost of the tariff will be borne by the consumer – either through higher cost or a less-reliable alternative.

When tariffs are implemented by one country against another, typically, the second country will retaliate with their own tariffs. In the current U.S. vs. China dispute, we are seeing this effect as well. One particular industry that has been directly targeted by China is the U.S. agriculture industry. Lately, the Chinese have moderated the announced-levels of tariffs against U.S. agriculture, but there are still penalty tariffs in place against most U.S. agricultural products.

This has had a marked effect against the U.S. agriculture industry. For example, from 2017 to 2018, U.S. agricultural exports to China fell from $20 billion to $9 billion. Soybeans, a specifically targeted export to China, decreased from approximately 1.3 billion bushels in 2017 to 250 million in 2018.

As noted previously, when a tariff is put in place against a particular country's goods, the purchaser may have to seek an alternative product source from another, non-tariff, country. Due to the worldwide expansion in agriculture, it has not been difficult to locate additional sources of agricultural products.

The level of non-U.S. agricultural product expansion has grown significantly over the past decade. South America has become a large exporter of grain grown in Brazil and Argentina.

Overall, South American grain exports have grown from 2.2 billion bushels in 2001/02 to 6 billion bushels in 2017/18. These increases are in addition to expanded agricultural products coming from China itself, India, Ukraine, and Georgia.

A secondary result of the tariffs and resourcing of suppliers by Chinese purchasers will be the loss of long-term customers to U.S. agricultural merchants. It may take several years following the removal of the tariffs for the Chinese customers to return. Additionally, U.S. merchants may have to lower their prices to secure new deals with other foreign customers not under tariff. Each of these generally results in lower revenue for the U.S. merchant.

In the face of tariff pressure, what can U.S. businesses do to protect themselves? There are a number of actions they can take:

1. Seek an exclusion. The U.S. Trade Representative has issued procedures for parties adversely effected by the China tariffs to seek an exemption. For List 3, the procedures were published in the Federal Register on June 24, 2019. Exclusion requests will be evaluated based on:

a. Whether the product is only available from China.

b. Whether the tariff will cause severe economic harm to the requestor.

c. Whether the product is strategically important to Chinese industrial programs.

2. Seek assistance. For small businesses, Trade Adjustment Assistance for Firms (TAA), provides financial assistance for firms facing import competition. The U.S. Department of Commerce has a cost-sharing program which pays for one-half of the cost of consultants or industry-specific experts for projects that improve a manufacturer's competitiveness.

3. Seek new markets. Businesses should seek additional markets for their products with buyers in countries not covered by the tariff.

4. Negotiate. For those businesses currently importing goods from China, negotiations with their suppliers may bring price reductions which may help offset the cost of the tariff.

The current trade war between the U.S. and China is having a severe impact on the U.S. agriculture industry. We do not expect this impact to moderate in the short term. For U.S. agricultural producers, seeking new markets is the best current alternative for now.

***Stephen Weber** CPA/CFF, CTA, Director, works with clients in the fields of turnaround management and business refinancing, litigation support, forensic and fraud evaluations, as well as performance improvement.*

What Amazon's new training program might tell us about the labor market.

By Anson Smuts

Anson Smuts *CMA, CFE, CVA, Director and Senior Economist, utilizes his accounting and finance expertise in mergers and acquisitions, business valuation, intellectual property, and data analysis to identify strategies for business growth and development.*

Corporate training programs are nothing new. They serve as relatively efficient and inexpensive methods for companies to leverage potential in-house talent for the growing needs of the business. When Amazon announced in early July that it would spend $700 million training 100,000 employees for higher-skilled jobs, a reasonable question to ask is - why? After all, Amazon is... Amazon. When a company is dominant in its industry, it is referred to as the Amazon of XYZ. So why can't Amazon be the Amazon of attracting talented workers? (To be clear, Amazon hires highly talented workers in droves, and it will likely continue doing so for many years to come.) Perhaps because Amazon is trying to account for the drastic changes occurring within the U.S. economy and labor market, and maybe because it sees a recession on the horizon.

This story begins with shifts in supply and demand within the U.S. labor market over the past few decades towards skilled or non-routine jobs. Since the mid-1980's, the U.S. labor market has pivoted away from manufacturing, and become increasingly service-focused, resulting in job growth primarily in non-routine cognitive jobs (management, professionals, scientists, engineers, etc.) involving critical thinking, judgement, creativity and social skills such as empathy. In contrast, employment figures in routine manual jobs (construction, production and transportation jobs) and routine cognitive jobs (sales and office jobs) have remained stagnant since the early 1990's and have failed to recover to the same number of jobs in place prior to the 2008 recession.[1]

In the case of Amazon, fewer workers are needed in warehouses, and more are needed behind computer screens and in conference rooms. Specifically, Amazon cites notable increases in the need for data mapping specialists, data scientists, solutions architects, security engineers and business analysts.[2] In labor market terms, Amazon is seeking to strengthen its workforce with non-routine cognitive occupations.

Underlying the demand for skilled workers throughout the economy is the ever-increasing use of automation. Amazon is commonly referenced in discussions around automation due to its extensive application of robotics in warehouses across the country. A commonly cited 2013 study from Oxford University titled "The Future of Employment" explains that the newest age of automation has been brought about by the confluence of sophisticated robotics, equipped with enhanced dexterity and senses, together with complex algorithms capable of utilizing big data to engage in pattern recognition and even non-routine cognitive tasks. Numerous studies have attempted to quantify the risks posed to the American worker by this newest wave of technology. The Oxford study from 2013 estimated 47 percent of total U.S. employment is at high risk of automation over the next decade or two.

In 2017, PwC estimated 38% of U.S. jobs are at high risk of automation[3] and a report from the Brooking Institute in January 2019 estimated that 25% of U.S. employment faces "high exposure" to automation in the coming decades.

Importantly, job automation does not equal job loss. Every job involves an array of tasks - a mix of cognitive and manual tasks, either routine or non-routine (routine manual tasks are the most susceptible to automation). Estimates as to whether a job is at high risk or high exposure to automation are based upon the proportion of those tasks that could be performed by a machine in the near future. Therefore, even if a job is at high risk of automation, it is entirely possible that the underlying tasks of that occupation will shift due to different tasks, as opposed to the job being lost altogether. Amazon's warehouses are a good example of the encroachment of robotics into day-to-day tasks. Robots are more efficient at transporting packages from A to B. Yet humans are still required to locate and scan products, and to solve problems, such as a broken product or spilled container (robots are still "too stupid" to perform these tasks).[4]

Amongst all the uncertainty as to the future, one fact we can rely upon is the future labor market will be favorable to skilled workers able to complement the use of robotics and algorithms. With an expected need for such workers throughout the economy, businesses have two primary options: train or hire. While companies like Amazon will continue to hire many workers, training programs could mitigate the risks associated with the future pool of skilled workers. Foremost among these risks in the current (and future) economy is the "skills gap." While the existence of a skills gap in today's economy is tough to deny (there have been more job openings than unemployed people in the U.S. economy for over a year), experts often disagree as to the true severity of the problem. Some experts assert the issue is rooted in the shortcomings of higher education and the lack of coordination between the education system and the business community. An opposing viewpoint is the "skills gap" is overhyped and is actually the inevitable result of a prolonged economic expansion, which has created a tight labor market and "pickier" employers.

Regardless of the current severity, the mere existence of a skills gap is a red flag for the future because, as we have already established, demand for skilled workers is only going to increase and great uncertainties exist as to the adequacy of the future labor pool. As a result, companies can expect even greater competition to attract skilled workers.

From a geographic perspective, employers in major urban areas will face greater competition for workers due to the concentration of economic growth. A 2019 report by McKinsey, "The Future of Work in America", estimated 60% of U.S. job growth through 2030 could be generated within urban areas, where high-growth industries such as finance, healthcare, media and tech have flourished.[5] According to the report, the diverse economies in these urban areas, as well as the educated workforces and innovation they support, are more likely to attract workers and foster new businesses.

While companies may need to revisit their approach to the future labor market, the implications for workers in this market, both skilled and unskilled, are also significant. An unambiguous feature of Amazon's drive for workers is the emphasis upon technical skills, not necessarily elite college degrees. This seems like a pragmatic solution amidst the fierce pace of change within modern technology, where skills learnt in college may become redundant. By some estimates, college graduates with job-specific skills may find those skills to be out-of-date within six years.[6] Of course, this does not spell the death of the college degree, but companies and workers need to be prepared for a world where educational attainment does not necessarily end with a traditional degree.

A further (perhaps more speculative) explanation for Amazon's desire to upskill its workers is because Amazon sees a recession on the horizon. Economists have found that recessions are characterized by concentrated technological-driven shifts in the means of production while opportunity costs are low, resulting in higher demand for skilled workers and lower demand for unskilled workers (an economic phenomenon referred to as "job polarization").[7] In other words, retraining efforts become especially important during recessions and Amazon is trying to stay ahead of the curve.

In summary, the U.S. economy is bound for substantial change and Amazon's upskilling initiatives are likely in anticipation of those forces. Such corporate upskilling programs could become increasingly significant to future career paths, especially within larger companies capable of capitalizing upon economies of scale within their initiatives (JP Morgan, Walmart and AT&T have also announced upskilling programs). If only governmental institutions and private enterprise could collaborate to produce preemptive solutions to the questions posed by job polarization. Yet, a great concern moving ahead is that both companies and workers alike will be too late in reacting to change, only for the economy to pass them by.

---

[1] https://www.stlouisfed.org/on-the-economy/2016/january/jobs-involving-routine-tasks-arent-growing

[2] https://press.aboutamazon.com/news-releases/news-release-details/amazon-pledges-upskill-100000-us-employees-demand-jobs-2025

[3] PwC, impact of automation on jobs, p. 2

[4] https://www.wired.com/story/robots-alone-cant-solve-amazons-labor-woes/

[5] McKinsey, p. 10

[6] https://www.naceweb.org/talent-acquisition/trends-and-predictions/is-there-really-a-skills-gap/

[7] Kopytov, A., Roussanov, N., and Taschereau-Dumouchel, M., "Short-Run Pain, Long-Run Gain? Recessions and Technological Transformation" NBER Working Paper No. 24373 March 2018 Hershbein, B & Kahn, L, "Do Recessions Accelerate Routine-Biased Technological Change? Evidence from Vacancy Posting", Working Paper 22762, September 2017

THEFT OF INTELLECTUAL PROPERTY

By Andrew Malec, Ph.D.

A recent CNBC poll finds that one in five U.S. corporations believe that China stole their intellectual property ("IP") (i.e., patents, trade secrets, trademarks and copyrights) within the last year. IP can sometimes be "out of sight, out of mind" since these assets do not always show up on a company's balance sheet. However, intangible assets [which includes intellectual property] represent a significant portion of the overall value of a company. In fact, intangible assets have been reported to account for about 80% of the value of S&P companies. As such, IP theft is significantly costly. Highlighting the magnitude of these dollars, the Commission on the Theft of American Intellectual Property estimates that IP theft by the Chinese costs the U.S. between $225 billion and $600 billion annually. As a result, IP theft has been a contentious issue in trade talks between the U.S. and China.

Why is intellectual property so valuable to a company? In simple economics terms, IP ownership provides a competitive advantage to a company which allows for increased profitability, and hence increased firm value. Examples of this competitive advantage are knowing how to produce or design something better, having the ability to charge a higher price due to name recognition, ownership of a customer database, or having ownership over a work of art. Therefore, IP theft presents a lost opportunity cost to the IP holder which results in a diminution in value for the IP holder. This diminution in value can also translate to employee layoffs, or a hold on new hiring, which directly impacts the growth rate of the economy. It also is a windfall to the company stealing the IP since it represents the foregone cost of having to develop the asset. In addition to corporate espionage and cyberattacks, China also acquires U.S. IP through forced technology transfers by compelling companies investing in China to provide details to the Chinese government on their IP.

Although often publicly discussed, the Chinese are not the only threat to IP. Anthony Levandowski, one of Silicon Valley's foremost technologists on self-driving cars, was recently charged by federal prosecutors with 33 counts of theft and attempted theft of trade secrets from Google. Gaining an edge in new technologies can be paramount in gaining a competitive advantage, especially in a competitive industry. Unfortunately, it has also led to some employees stealing the IP of their former employer recognizing that this provides a competitive advantage to the new employer.

Whether it is a foreign government, or a current/former employee, IP theft is a disrupter to a company and has significant dollar consequences. As such, it is paramount that a company protect and enforce IP. If the IP is not protected it can result in a diminution in value of the business.

A fast-paced technological innovation cycle may be one way to stay ahead of the competition and dampen any impact from IP theft since competitors will always be faced with constantly trying to keep up with the newest technology. Also, limiting joint ownership of IP can assist in avoiding any potential future disputes over who owns the IP.

IP litigation is one of the most expensive actions that a company can pursue. However, litigation funders can assist the company by providing an alternative means of financing the litigation for a return on their investment if the plaintiff prevails in a lawsuit. These funders provide a potential option for plaintiffs to consider in these lawsuits to enforce their IP rights.

In conclusion, it is important to recognize that intellectual property is a significant value driver for any company and that intangible assets can represent the supermajority of the enterprise value of a company. It is important to protect your IP from a foreign government, as well as current/former employees. If not, the disruption that IP theft may cause can result in a permanent loss in corporate value.

Andrew Malec, Ph.D. *Partner and Managing Director, is the firm's chief economist and head of O'Keefe's Intellectual Property ("IP") Practice Group. He is a recognized expert in providing economic advisory services, litigation support, and valuation opinions.*

Did you Know?

O'Keefe provides Strategic Advisory Services

When you or your client is facing a disruptor, we can help you prepare the pivot for your team. The cost of inaction in the face of uncertainty can leave your business vulnerable to new entrants, more agile competition, regulatory forces, and technology hurdles. Today's market demands companies do more with less and execute with efficiency. Our goal is to make business segments more profitable, sustainable against competitive forces, identify relevant global market opportunities where appropriate, and optimize our client's capital structure. Our professionals have assisted numerous middle market companies by providing clarity to analytical problems that shape strategies for enhanced profitability.

On October 16th at Vinotecca in Birmingham, the women of O'Keefe presented the topic of

"NAVIGATING TECHNOLOGY DISRUPTORS: PREPARE TO PIVOT YOUR TEAM"

Entrepreneurs face many technological challenges including managing proprietary data, implementing best practices for cybersecurity, and positioning corporate strategy for industry disruptors. Speakers included **Susan Koss** as Master of Ceremonies, Moderator, Susan Voyles, Publisher & Executive Editor of Corp! Magazine, Lori Blaker, President & CEO of TTi Global, Matt Loria, CEO & Partner of Auxiom, and Lori McColl, Founder & CEO of Whim Detroit. **Violeta Zdravkovic**, Managing Director of O'Keefe provided closing remarks. This panel of dynamic entrepreneurs shared their experiences and strategies to maneuver and embrace innovation.

Matthew Rizzo CPA, CVA, Director at O'Keefe, presented **"Recreational Marijuana Business Law in Michigan, An Essential Guide to Business Best Practices, Banking Difficulties, Taxation Conundrums and More"** in Grand Rapids on November 5th and Farmington Hills on November 8th hosted by National Business Institute, an organization dedicated to providing practical, skill-based CLE seminars and online CLE courses.

Best Litigation Consulting & Forensic Accounting Services!

O'Keefe has been named winner in the category of Best Litigation Consulting Services for the third year in a row and also Best Forensic Accounting Services by Michigan Lawyers Weekly Reader Rankings. O'Keefe professionals have testified numerous times in state and federal courts, depositions, mediation, and arbitration proceedings for a variety of litigious matters. We quantify our clients' damages, assist in developing the financial aspects of litigation case strategies, and concisely convey complicated financial issues to courts and juries. Our findings are often used to provide the basis for settlement negotiations.

O'Keefe
2 Lone Pine Road
Bloomfield Hills, MI 48304
www.okeefellc.com

The age of disruption....

Special Industry Disruptors Issue Inside:

Crowdsourcing Innovation

Alternative Meat... Where's the Beef?

Driving Data

The Battle for Attention

THC vs. Alcohol

What Amazon's New Training Program Might Tell Us About the Labor Market

O'Keefe

Clarity. Results. Together.

ENTERPRISE CONSULTING • LITIGATION SUPPORT • STRATEGIC ADVISORY SERVICES • TURNAROUND AND RESTRUCTURING