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FROM THE EDITORS

In this issue of *Quarterly Review of Business Disciplines,* Robert Page Jr., Robert Smith Jr., and Smita Shrestha, Southern Connecticut State University, investigate the treatment of unauthorized restaurant workers, their vulnerability, and sustainable competitive advantage. Brian Wilson and Kate Mooney, St. Cloud State University, explore the value of ethics as taught in continuing professional education (CPE) courses – upper echelon vs. non-upper echelon variables. The research of Liqiong Deng, University of West Georgia, draws on the Regulatory Focus Theory (RFT) and Cognitive Appraisal Theory (CAT) to examine the effects of IT users' regulatory foci on their emotions and technology adaptation behaviors.

Dale Steinreich and Gary DeBauche, Drury University, explore artificial scarcity and economic exclusion in the industrial organization of American medicine leading up to and after Tuskegee. It examines twin narratives and reviews studies documenting demographic health disparities and changes that were made during and after Tuskegee. Our final paper, written by Conrad Fernandes, International School of Management, Paris & Columbia University, and K. Matthew Wong, St John's University New York, explores venture capital activities in China, entrepreneurial endeavors, boom and bust cycles, and failure of venture capital markets to achieve their full potential.

Margaret A. Goralski, *Quinnipiac University,* Editor-in Chief
Kaye McKinzie, *University of Central Arkansas*, Associate Editor

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FAIR TREATMENT OF UNAUTHORIZED RESTAURANT WORKERS AS A SUSTAINABLE COMPETITIVE ADVANTAGE

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ABSTRACT

The US restaurant industry is a multibillion-dollar revenue generating machine. The relatively low food costs have been sustained, in part, on the backs of illegal immigrant workers who are systematically underpaid, overworked, and otherwise exploited. In the restaurant industry approximately one quarter of the lower paying positions are staffed by illegal immigrants. Given that US industries in the service, construction, and food sectors are dependent on illegal workers to the point of advertising for them in their native lands, the term "illegal" is disingenuous and illogical. If immigrants are invited either expressly or impliedly, the real dichotomy is between "invited" and "uninvited" immigrant workers. Immigration reform efforts at the federal level have repeatedly failed. The viable solution of promoting the fair treatment of unauthorized workers where they actually live and work and how this will create competition for their valuable, economic work among the states, will be introduced. Fair treatment of invited immigrants, undocumented and unauthorized or not, is explored as a source of sustainable competitive advantage. Four potential strategies are evaluated: fair compensation, fair supply chain, standards of advocacy, and training and support. The long-term economic outcomes of these strategies for the food service industry will be analyzed by comparing and contrasting the costs and complexities involved in each approach.

Keywords: Immigration Law Reform, Social Responsibility, Competitive Advantage, Restaurant Workers.

INTRODUCTION

Over the past decade, fair standards for lower paid workers has been popularized in the US. The Fair Trade movement has improved the treatment of foreign workers, and minimum wage standards have been raised in some states for domestic workers. Illegal, unauthorized workers continue to be abused and exploited in major industry sectors without respite. Given the growth and popularity of the sanctuary movement protecting illegal immigrants, this paper explores strategies to improve the treatment of illegal, unauthorized workers. Fair treatment can pose a potential source of sustainable competitive advantage, despite anti-immigrant political sentiments.

Riding a wave of anti-illegal immigration sentiment in America, Donald Trump became president with the promise of cracking down on immigration, particularly illegal immigration. Trump has a five-step plan regarding illegal immigrants ranging from partially banning immigration to deporting undocumented immigrants to building a wall near the USA-Mexican border to prevent further immigration (Thomas, 2015). However, it would decrease the number of illegal immigrants in the US and affect the labor force. American business and the politicians they own actively oppose Trump's immigration policies (Andersen, 2016). If illegal immigrants stopped working, not only would average prices increase, but many menial jobs would go unfilled. Many sectors of American business are dependent on unskilled immigrant labor. "Immigrants provide much of the low-skill labor for these industries. Without the immigrant labor, prices consumers pay for hotels and restaurants would be substantially higher, and some agriculture might migrate offshore" (Furchtgott-Roth, 2014, para. 9).

The construction, maintenance, and for-profit prison sectors also utilize large numbers of illegal workers (Flannery, 2013). America needs illegal immigrants because they overwhelmingly fill jobs Americans are not interested in, given their pay, hours, and working conditions (Bittman, 2015). They also deliver impressive economic benefits (tax revenues, entrepreneurial businesses, etc.). This work relationship can serve to create an implied contract between the immigrant workers and society giving the immigrant workers membership status in society (Jones-Correa & de Graauw, 2013).

Beyond unskilled labor, the high technology industry has also become dependent on a continuous flow of inexpensive professionals:

> In March 2013 tech industry groups such as the Information Technology Industry Council, The Internet Association, and the Silicon Valley Leadership Group joined together to push for immigration reform. In a letter addressed to "The Honorable Barack Obama" tech company CEOs argued that "the United States has a long history of welcoming talented, hard-working people to our shores [and] immigrant entrepreneurs have gone on to found thousands of companies with household names like eBay, Google, PayPal and Yahoo. These companies provide jobs, drive economic growth and generate tax revenue at all levels of government. (Flannery, 2013, p. 2)

From an industry perspective able-bodied immigrants are welcome, whether documented or not, because of their positive economic impact (Gutiérrez, 2016; Marquardt, Steigenga, Williams, & Vásquez, 2013). These tradeoffs are illustrated in Figure 1:

Figure 1. Economic Impact of Immigrants

High **Skill Level**	***Variable Impact*** Credentials Rejected Further Training Needed	***High Impact*** Professionals Entrepreneurs
Low	***Negative Impact*** Beneficiaries of the state High Support required	***High Impact*** Able bodied laborers Low Support required
	Low	**High**

Economic Contribution

The government already has the H-1B temporary visa process to import large numbers of highly skilled immigrants to service the high technology sector, and the H–2A temporary agricultural worker visa, both indenturing them to a specific company sponsor (Hesson, 2015). However not in sufficient numbers, so businesses and cities actively recruit illegal immigrants with marketing campaigns south of the border, and in Russia (Furchtgott-Roth, 2014; Gutiérrez, 2016; Hesson, 2015; Penaloza, 1995). Tyson actually developed a human smuggling service to ensure the timely arrival of sufficient unauthorized workers to its production facilities (Barboza, 2001). What is less well known is semi-legal status for illegal workers who become independent contractors, particularly if they incorporate as an LLC, since all Immigration and Naturalization Service [INS] action against them is suspended (Carcamo, 2013).

Consequently, the Pew Research Center argues that the term "illegal" immigrant is inappropriate. They think the term "undocumented" does not go far enough, and prefer "unauthorized" (Krogstad, Passel, & Cohn, 2016). Further, the authors argue that the real dichotomy is between invited and uninvited workers. If we invite them, they have to be welcomed, not stigmatized. This is an advance on the "wanted" versus "unwanted" immigrant categorization used in the past (Wright, C.F., 2016).

TRENDS IN THE FOOD INDUSTRY

The food industry is expected to reach $783 billion in the United States in 2016. Over 1 million new restaurant locations were opened in the United States in 2016 (National Research Association, 2016). It is a highly profitable industry. This industry plays a major role in the US economy as its workforce makes up a major ten percent of the overall US workforce (National Restaurant Association, 2016). It can be divided into three sectors: The Quick Service Restaurants [QSRs], fast casual restaurants, and luxury dining restaurants.

QSR restaurants focus on providing fast, inexpensive food with counter service. They also have a drive-thru option, with no table service. They are more popularly known as fast food chains. The popular ones today are McDonald's, Wendy's, Taco Bell, and Burger King. Their food is not produced by a skilled cook, but a collection of workers who are trained to do small, specific steps to get to the final burger, or taco (Kwansa & Parsa, 2014). Quick Service Restaurants made a staggering revenue of 206.3 billion dollars in 2016, the most out of the three segments. There were a total of 186,977 fast food eateries in 2016 (Harrington, Ottenbacher, & Fauser, 2017). The QSR have taken inspiration from the recent success of the casual food scene and implemented features for a wider customer appeal. For example, McDonald's announced their 24-hour breakfast, which saw its business increase by 5.4 percent (Harrington et al., 2017).

The fast casual restaurants are a notch above the Quick Service Restaurants. They consist of food made on the spot, in contrast to the pre-assembled food at fast food places. They use fresher ingredients, offer flexible menus, and upgraded equipment. One meal at fast food restaurants costs around $5- $6, whereas fast casual segment prices its average meal from $9 to $13 (Ferdman, 2015). Despite its high cost in comparison to QSR, fast casual food has thrived in the American food scene. It witnessed a 600 percent growth since 1999, ten times the growth of fast food (Euromonitor, 2016). According to Technomic's "The top 500 Chain Restaurants" report, the growth can be attributed to the freshly made food that is catered to individuals and have an improved taste compared to fast food (Kelso, 2014). Most fast casual are franchisees and a "cheap eat" for the customer (Kwansa & Parsa, 2014). Some popular fast casual restaurants include Chipotle, Shake Shack, Panda Express, and Panera.

Despite their rising popularity, the QSRs remain the top earner due to the evolving economic snapshot of America. The middle class in America is slowly disappearing and being replaced by lower-income households. The middle class were once the nation's economic majority, but all that changed in early 2015 (Pew Research Center, 2015). This correlates to the declining performance of the mid-level restaurants. Boston Market, Olive Garden, and their peers are losing ground to the QSRs.

Fine dining restaurants consist of quality food, top-notch presentation, dedicated table service, upscale ambience, and expensive prices. They are the high-end eateries such as Dozo and Carrabbas. Such restaurants focus on the amalgamation of food and pleasant atmosphere to provide a memorable dining experience. Most fine dining restaurants are independently owned and have a loyal fan following, despite the high price tag. They are the preferred choice when consumers have a special event in their life such as a birthday or graduation and want to splurge. Fine-dining restaurants price their food at ranges much higher than QSR or fast casual restaurants. The average gross profit margin in this category is around 60 percent (Browne, 2017; Lander, n.d.).

While the middle class may be shrinking, the upper and lower classes continue to grow ("The American middle class is losing ground.," 2015). The wealth disparity can be seen by the massive difference in net worth. Accordingly, fine dining restaurants should enjoy, at minimum, stable patronage. Fine dining restaurants remain cost sensitive because in order to break even, restaurants need to produce a profit margin from 32 to 38 percent (Nessel, n.d.).

Minimizing Costs with Undocumented Workers

According to the Department of Labor, in 2013 foreign born worker:

- About 38 percent (9.5 million workers) were from Mexico and Central America
- 28 percent (7 million workers) were from Asia (including the Middle East).
- 10 percent were from Europe
- 10 percent were from the Caribbean (Mosisa, 2013)

Approximately one fifth of the workforce of the restaurant industry consists of invited but undocumented immigrants. They make up approximatly 20 percent of the nation's chefs, cooks, and 28 percent of the dishwashers (McCarthy, 2016). This constant supply of invited but undocumented labor is fueled by the global trend of immigration (Dinan, 2016). Invited but undocumented immigrants have a major impact on the restaurant industry.

According to the Washington Post, more "illegal" immigration occurred in 2016 than in 2015. More than 370,000 "illegal" immigrants have been caught trying to enter the United States in 2016, including approximately 38,000 families (Dinan, 2016). Immigrants are travelling in packs to escape the grim reality of criminal gangs and employment. The Central American regions such as Guatemala, Honduras, and El Salvador have been plagued with such activity and led to this increase (Dinan, 2016). "Illegal" immigration may be a polarizing issue in the United States, but it has been an economic blessing to the restaurant owners. The immigration has supplied a range of cheap labor who are willing to work in the back of the restaurant. So, the restaurant industry has benefited from the wave of undocumented migration to the states.

Many restaurants are considered "small businesses" with fewer than 50 full-time employees. As such, these businesses are not subject to an Employer Shared Responsibility payment to the IRS for failing to provide health insurance to their full-time employees ("Affordable Care Act Tax Provisions for Small Employers," 2017). The added cost of providing insurance in a small workforce can be an uncertain investment for restaurant owners, due, in part, to the high turnover rate in this particular industry (Fox, V., 2017). According to a recent survey by the National Restaurant Association (2016), more than half of restaurant owners find it a challenge to find and keep good workers. To preserve profits, restaurants control their labor costs by paying lower wages to workers who lack job prospects. With invited but undocumented immigrant workers, they have a pool of workers who are reliable and hard workers. "We always, always hire the undocumented workers," a Manhattan restauranteur stated in a New York Times Article (Kershaw, 2010, para. 13). "…they are willing to do the work…willing to learn. Third, they are not paid as well. It's an economic decision" (Kershaw, 2010, para. 13). Payroll is a large portion of a restaurant's net profits. This permits American consumers to enjoy low cost food. In the words of a restaurateur: "We'll have to pay higher wages, [if we hire legal employees], more taxes and then we will have to charge more" (Kershaw, 2010, para. 19).

Ironically, invited but undocumented immigrant workers are covered by labor laws including the Fair Labor Standards Act, Equal Employment Opportunity Commission (EEOC) and The Occupational Safety and Health Act (OSHA) that establish legal standards for the work environment. A non-exempt employee has to be provided with minimum wage per hour that s/he works. According to the Department of Labor, the national minimum wage is around 7 dollars and 25 cents, although the amount varies by state. A person working in California has to get paid $10.00, compared to a person working in Arizona at $8.05 per hour (Department of Labor, 2017). Moreover, all the hours that an employee worked must be compensated. Any extra hours must be paid at a premium rate; it is usually at a time-and-a-half rate. The restaurant must properly train their employees and provide necessary equipment. Employees should have access to first aid kits in cases of emergency. The Equal Employment Opportunity Commission (EEOC) protects workers from racial, color, religious, age, and gender discrimination (Department of Labor, 2017). Being able to ignore these standards and their direct and indirect costs can be lucrative.

Exploitation

The invited but undocumented immigrant workers have a lot at stake. They have crossed into a foreign country illegally in hopes of a better life than the one they have left behind. They need to start looking for a job as soon as possible to settle debts and earn money. It is challenging in America to find a job when you have no legal documentation. The immigrants could hold degrees or experiences from their native country to be employed in a white collar job, but it is useless as they lack proper documentation (Gammeltoft-Hansen & Sorensen, 2013; Kukushkin & Watt, 2009). So, they hold a deep appreciation for any job that they can find. They do not shy away no matter how labor intensive the positions are, whether they are prep cook, dishwasher, or night porter positions. Their discipline and reliability is reflected in the high number of immigrants in the restaurant business (McCarthy, 2016).

Exploitation is one of the unfortunate realities of the successful restaurant industry. Invited but undocumented immigrant workers are at the mercy of their employers (Bittman, 2015; Marquardt et al., 2013). They are the most vulnerable segment of the workforce, comprising 27% of labor in this industry. A study done by Restaurants Opportunities Centers United, "Behind the Kitchen Door" resulted in some alarming restaurant labor statistics. Half of the workers do not get paid for overtime work. Eighty-seven point seven percent of employees do not have paid sick days. There was racial discrimination and pay disparity where 28% of workers reported being passed over for a promotion due to their race. Thirty-four point six percent of workers reported having to work under time constraints that may have harmed the health and safety of consumers (Jayaraman, 2013). They live lives of abject poverty (Marquardt et al., 2013).

Invited but undocumented immigrant workers face additional hurdles while working in the restaurant industry. They often work in dangerous conditions, where there is a significant possibility of getting injured (Gammeltoft-Hansen & Sorensen, 2013). They do not receive the medical care they need, nor they do they receive the worker's compensation that legal workers receive. They can be fired from a job with no compensation for the hours worked (Marquardt et al., 2013). If employees try to speak out about their treatment, they are threatened with deportation. The Boston office of the US Department of Labor conducted 165 investigations in the restaurant industry in fiscal year 2013. They found multiple wage law violations and collected more than a million dollars from the guilty restaurant party ("Service not included: Restaurant industry serves up injustice to workers," 2014).

Invited but undocumented immigrants are fearful that since they do not have legal documentation, they are at fault and will get deported (Bittman, 2015). There are also instances where employers knowingly interfere with their workers' visa process. The employers could be the sponsors, so they are in charge of providing the working visa for their workers. They deliberately allow the visa to expire, which makes these workers extremely vulnerable, and dependent on one employer. They are more likely to face deportation due to their status loss. They also have a difficult time looking elsewhere for a job with the same illegal status so they have no choice but to continue working for the same employer (Marquardt et al., 2013).

Unfortunately, invited but undocumented immigrants are unaware that they have workplace rights. They are often unaware that they have the right to report crimes and misdemeanors occurring against them (Marquardt et al., 2013). Boston Globe reported about Filiberto Lopez, a worker at an East Peruvian restaurant. He worked 80 hours per week, but was only paid $5 with no overtime. He was mistreated by his boss but he did not know how to leave the situation. "I didn't speak English and didn't have legal documents . . . I assumed I had no rights at all" ("Service not included: Restaurant industry serves up injustice to workers.," 2014, para. 14). Lopez has helped Massachusetts Coalition for Occupational Safety and Health identify other workplaces that abuse and take advantage of workers like Lopez ("Service not included: …," 2014).

Fear of retribution can be mitigated by the fact that undocumented workers' employers are also breaking federal laws by hiring them in the first place. Anna Karewicz, Polish organizer for

ARISE, tells immigrants they shouldn't acknowledge threats of deportation since employers are often breaking the law themselves. Any worker, irrespective of their legal status has rights (Mehner & McClane, 2010). Illegal immigrants are without proper visas to stay in USA so they do not necessarily have the right to stay here. However illegal immigrants still have the constitutional rights to safety and property just like any American, according to Richard Hanus, a Chicago area immigration lawyer (Hanus, 2013)

FAIRNESS AS A SUSTAINABLE COMPETITIVE ADVANTAGE

The question becomes, given the increasingly cost sensitive nature of the restaurant industry, can fair treatment become a differentiator that can attract customers despite adding some level of cost? Start-ups may find the possibility attractive to distinguish themselves from the competition. Over one million new restaurant locations were opened in the US in 2016, despite the disadvantages of start-ups:

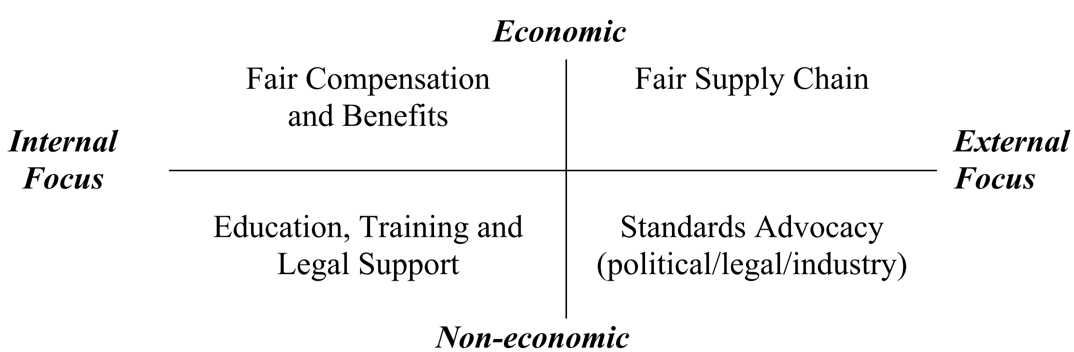
- higher average costs than already-established restaurants
- low negotiating power with their suppliers
- suboptimal locations
- under-developed loyal customer base (National Restaurant Center, 2016)

The benefits being socially responsible and at least minimizing the exploitation of undocumented workers are considerable:

- Reputation and image as socially responsible
- Expansion of customer base to immigrant-friendly customer segments
- Avoiding unionization drives
- Employee motivation, productivity, and engagement (American Management Association [AMA], 2016; Hesson, 2015)

Currently businesses are considering the following strategies to improve fair treatment of immigrants as a competitive advantage, as illustrated in Figure 2:

Figure 2. Fairness as a Strategic Differentiator



Fair Compensation

Customers have shown some willingness to pay more for fairly compensated foreign workers. This is epitomized by the fair trade movement, which guarantees that the workers producing certified products are receiving a living wage for their labor in relatively safe working conditions (Darian, Tucci, Newman, & Naylor, 2015). The movement developed as the oppressive exploitation of foreign workers became well-publicized, coupled with public campaigns that simultaneously identified corporations that relied on these predatory practices, and those that rejected them (O'Rourke, 2005). Non-governmental organizations [NGOs] developed large coalitions of various stakeholders to launch a moral appeal for fair trade standards to consumers, which was largely effective in influencing consumer preferences (Darian et al., 2015; O'Rourke, 2005). In turn, this created real advantages for producers: “Generalizing across commodities, at a minimum, fair trade standards are enacted by a price premium, a guaranteed price floor, long-term trading contracts, easier lines of credit, and shorter supply chains” (Sumner, 2015, p. 121).

There are currently efforts to improve treatment of low paid US workers, including immigrants, by boosting the Federal minimum wage, and pushing for a $15 dollar / hour base wage in the food industry – the “Fight for 15” (Bittman, 2015). Should this movement catch on, pushing for a fair trade standards deal within the United States becomes feasible.

There is also a business case for fair treatment grounded in the demographic trends of the US population. A growing segment of the consumer base is likely to look favorably upon patronizing organizations with an enlightened view toward the fair treatment of immigrants:

> Beyond motives of altruism lay considerations of the bottom line. Foreign-born residents now make up 13 percent of the U.S. population, a not-to-be-ignored share of the consumer market. The next generation is more lucrative still: One in four American residents younger than 18 has an immigrant parent. (Hesson, 2015, para. 14)

This could translate into a real source of sustainable competitive advantage in regions with sufficient immigrant population density.

Fair Supply Chain

Companies have started to become more socially responsibile by working with suppliers to ensure workplace compliance. Manufacturers and purchasers are instructing their suppliers and subcontractors to comply with the law and employment standards while employing employees in offshore lands. The latest research on the topic also shows a connection between consumer’s spending habits and their social responsibility. The social conscious way of living is more than an ideology and has started to impact business. Fair-trade is no longer relegated to simply coffee beans and organic fruit. An experiment by *The Socially Conscious Consumer?* tested whether consumers would choose ethically labeled products over counterparts given the choice. Results demonstrated that labels with information about fair labor standards had a “substantial” effect on shoppers (Hiscox & Smyth, 2011). Despite higher prices, consumers choose products that carry signs of fair labor.

Apparel companies are following suit and listening to their consumers' demands: "Consumers concerned with working conditions, environmental issues and outsourcing are increasingly demanding similar accountability for their T-shirts" (Clifford, 2013, para. 2). Nike and Walmart, two companies infamous for their labor standards, are working on an index to measure their company's labor, social and environmental points. Wal-mart received added pressure (Clifford, 2013).

The consumer's paradigm shift to ethical shopping came through a building collapse in Dhaka, Bangladesh. Numerous industry accidents occur across the world in factories, and plants. worldwide, but none of them were as influential as the Rana plaza collapse. This was the catalyst which put the spotlight on working conditions in factories across different industries. An eight-storied garment factory, the Rana plaza in Bangladesh collapsed, and killed 1,100 workers leaving 2,500 workers injured. Despite being affiliated with international companies such as Children's Place and Walmart, the Rana factory had numerous building code violations and was deemed unsafe to work by an engineer, with deadly results (Mortimer, 2015). Amongst the prying eyes of the entire world, multinational companies had no choice but to pledge toward improving work conditions. The reform came in the shape of an accord, *Accord of Fire and Building Safety in Bangladesh*. This was a five-year legally binding agreement between international brands, retailers and trade unions. It was designed to protect Bangladesh's apparel industry by implementing public disclosures, democratically elected health and safety committees, independent inspection programs, and empowering workers (Greenhouse, 2013).

This started a chain of inquisitive consumers who questioned their manufacturers regarding the source of their products. According to the founder of Good Cloth, "It [Rana Plaza collapse] caused policy shifts but it also caused a really noticeable shift in consumer awareness" (Westervelt, 2015, para. 18). Customers demanded transparency from companies and held them accountable for their workers, then patronized companies whose supply chains avoided such problems. Restaurants can cater to these preferences as well. That reflects on the restaurant's buzz and business.

Fair Standards Advocacy

Employers who treat and pay their employees well, regardless of immigration status, are undermined by employers who exploit their immigrant workers whether they are documented or not. A way to ensure equity among employers is to create uniform standards that ensure workers are treated fairly regardless of immigration status. Legal reform that would require employers to afford the same rights to documented and undocumented workers would create equity among employer cost structures.

As discussed previously, a vast number of invited but undocumented workers in the U.S. are forced to stay in the shadows and tolerate blatant violations of their labor and civil rights for fear of being arrested and deported. In 2013, several invited but undocumented construction workers in Louisiana organized and met with their employer to demand unpaid wages. Rather than hearing the workers' concerns, the employer's response was to have immigration officers and police greet the workers with their guns drawn (Montouvalou, 2013). As such, reform is needed that will allow immigrant workers, regardless of status, to safely assert their rights and find manageable paths toward citizenship while preserving the economic benefits this class of worker has on the U.S. economy.

First, businesses can and do support immigration reform, including paths to citizenship for invited but undocumented workers having a positive economic impact on the economy. Having large numbers of hard-working cheap labor and innovative cheap professionals should not be underestimated (Fox, L., 2014; Marks, 2013). Wright (2016, p. 1) summarizes: "Such actions can help to generate public support for greater numbers of wanted immigration that can meet skills shortages or make net fiscal contributions, such as those on skilled and work visas." Provisions that link such pathways with legally limited rights of new immigrants to access the welfare state provisions available to citizens and permanent residents remains controversial (Ruhs, 2013; Wright, 2016).

Second, business can pressure government to ensure the INS is not used as a tool of intimidation. Proposals for an expanded and improved guest worker program have been met with much resistance, and need support. The increase in immigration enforcement since 2001 has caused an increase in the marginalization of undocumented workers by employers. Workers with temporary migrant visas are often left at the mercy of a single employer who can – and often does – take advantage of the immigrant worker by paying them an unfair wage. Wages paid to temporary agricultural workers are typically $10 less per hour than they are for other workers (Republic, 2015). The guest worker program has been likened to modern indentured servitude as the workers in this program are seen as expendable. While they have certain federal "rights," enforcement of these workers' rights under this program has been woeful. When the work visas expire the worker faces the possibility of deportation (Bauer & Stewart, 2013).

Third, businesses can lobby for limits on periods of indentured servitude. Currently, employers have the advantage of abusing their power over migrant workers. Discouraging worker organization, poor wages and deplorable working conditions persist (Zatz et al., 2016). A way to curb employers' abusive tactics would be to allow guest workers to change jobs after a certain amount of time with the ability to secure permanent citizenship if they comply with their work visas. Channeling the future flow of unskilled immigrant workers strategically while providing a path toward legal work, would help prevent the financial strain on consumers and the affected industries that depend on these workers (Holzer, 2011).

Businesses can also consider supporting proposals for "whistleblower" visas. Recognizing the exploitation of immigrant workers by many employers, in 2015 Senator Bernie Sanders proposed sweeping reform. Sanders' plan would have empowered invited immigrants, regardless of documentation status, to report unfair treatment in the workplace without fear of imminent deportation or retribution from employers. Under Sander's plan, immigrant workers who reported unfair working conditions that they witnessed or directly incurred, would be eligible for "whistleblower" visas. Whistleblower immigrants would also have a right to state-appointed legal counsel if facing deportation, a right they currently do not have (Attanasio, 2015). Further, they could leave their current employer for other employment without visa repercussions (Attanasio, 2015).

In conjunction with reform at the federal level, a viable way to balance the economic benefits of low-skilled laborers with enforcing their labor rights seems routed in competition among the states. A "bottom-up" approach to immigration reform would create competition among the states to attract the much-needed, inexpensive labor skills of unauthorized workers to their state (Bhagwati & Rivera-Batiz, 2013). As states lose vast amounts of inexpensive labor, their politics will shift toward enforcing more accommodating laws. Unauthorized workers "are already voting with their feet, leaving or bypassing states that treat them harshly and flocking to those with more benign policies" (Bhagwati & Rivera-Batiz, 2013, p.14). While the states do not have jurisdiction to regulate immigration in the areas of civil rights and border protection – which have exclusive federal jurisdiction – the states can do things to make life a bit easier for unauthorized workers such as granting drivers' licenses, funding university scholarships, and making healthcare more accessible (Bhagwati & Rivera-Batiz, 2013).

Finally, businesses can publicize, and encourage the government to publicize, the fact that invited but undocumented workers are not a threat to American workers. Most unskilled immigrants tend to fill jobs American workers are simply not interested in (Fox, L., 2014). Further, the loss of immigrant labor does not translate into economic gain. For example, Arizona took a tough stand against unauthorized immigrants. While a recent sizeable departure of unauthorized workers from Arizona created less competition for native-born low skilled workers, it reduced the state's gross domestic product by approximately two percent and the state's employment rate fell by 2.5 percent. Native-born workers and legal Latino immigrants got fewer than ten percent of the jobs previously held by unauthorized workers (Ewing, 2016).

Targeted Support

There are no formal training and development programs for unauthorized workers in the private sector because it is illegal for American businesses to hire any recruit who fails to provide proper documentation. Informally, many corporations provide a variety of programs offering additional training and education to improve undocumented workers' marketable skills, and provide legal support to improve their status:

> The private sector, too, has shown an interest in bringing immigrants into the mainstream of American life. Citigroup is promoting citizenship efforts in Maryland, while another big bank, BB&T, has been holding educational forums across the Southeast to explain a federal program that issues work permits to young undocumented immigrants. Retailers such as American Apparel go out of their way to help foreign-born employees learn English and apply for citizenship. (Hesson, 2015)

These are minor adaptations on existing programs to make documented immigrants feel welcome in American businesses. More of these features can be adapted for undocumented workers:

- Support diversity, including management sensitivity programs
- Offer flexible schedules and extended time off
- Education, training, and certificate programs
- Provide legal counselling and immigration documentation
- Offer professional language and communication skills training programs

- Include orientation and coaching programs to bridge cultural transitions
- Incorporate foreign holidays and celebrations into events calendars.
- Creative compensation such as airfare discounts and travel incentives (AMA, 2016; Kukushkin & Watt, 2009)

There is a public sector initiative to provide support of unauthorized workers from both "Sanctuary" areas and religious organizations such as the Catholic Legal Immigration Network.

> There is no specific legal definition for what constitutes a sanctuary jurisdiction but the term is widely used to refer to American cities, counties or states that protect undocumented immigrants from deportation by limiting cooperation with federal immigration authorities. Some decline to use city or state tax dollars to enforce federal immigration laws. Many prohibit local officials from asking people about their immigration status. Sanctuary policies can be mandated expressly by law or practiced unofficially. ("What are sanctuary cities?," 2016, para. 2; see also Chen, 2015)

According to the Centre for Immigration Studies, over 300 US cities, counties, and states offer some degree of sanctuary, most notably the cities of New Orleans and Boston, and the entire states of California, Connecticut, New Mexico and Colorado ("What are sanctuary cities?," 2016). Some cities and states provide unauthorized workers with identification cards, driver's licenses, and other documents that are necessary for modern living (Davis, 2013). San Francisco offers a variety of training programs to assist unauthorized workers with language, culture, and vocational issues (Finnegan, 2009).

Education has become the first major industry to experiment with the "sanctuary" model for its students. This movement began in K-12 (Nájera, 2016), but now extends through colleges and universities as well (McGirt, 2016) – even reaching the Ivy Leagues. A variety of NGOs are beginning to offer support services and training on supporting undocumented students to interested colleges and universities. For example, United We Dream's mission is to "seek to address the inequities and obstacles faced by immigrant youth and believe that by empowering immigrant youth, we can advance the cause of the entire community—justice for all immigrants" (United We Dream, 2016, para. 2). They offer a series of Dream Educational Empowerment Programs (DEEP), including UndocuPeers: Liberating Campus Climate, a four-hour interactive ally certification training. Further, colleges and universities are developing educational certificate programs specifically targeting undocumented workers. This began with Freedom University, sponsored by the University of Georgia for residents of Georgia. This approach went national with American Dream University, sponsored by the National Labor College and the University of California at Los Angeles' Center for Labor Research and Education (Young, 2012).

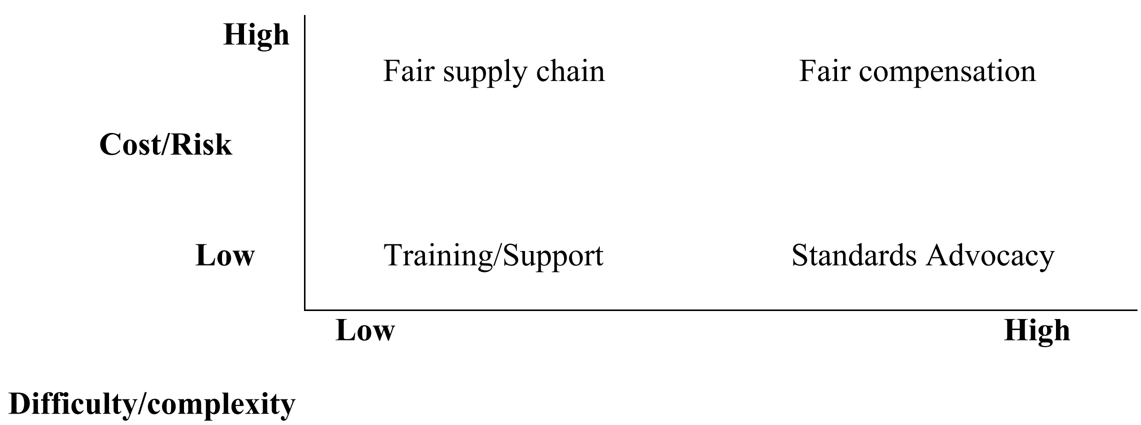
IMPLICATIONS

According to a Department of Homeland Security estimate in 2011, approximately 11.5 million unauthorized immigrants are residing in the U.S. Over half of these immigrants are from Mexico. Aside from the economic benefits discussed earlier, even federal programs depend on invited but undocumented worker support. While some avoid paying taxes altogether, a significant number of unauthorized workers' pay federal taxes. By providing employers with an otherwise valid social security number no longer in use, employers deduct far more federal taxes from unauthorized workers' paychecks than they will ever receive in benefits in the form of Social Security or Medicare. According to the Social Security Administration, if it "were not for illegal immigrants, the Social Security Trust Fund would be depleted five or six years earlier than current projections" (Brannon & Albright, 2016, p. 4).

The success of these initiatives is largely dependent on whether concerted marketing and coalition building efforts can legitimize the role and need for invited but undocumented workers, and support their fair treatment in the eye of the public. Such support has already been secured overseas for foreign workers. Over half of global consumers surveyed by Nielsen expressed a willingness to pay a higher price for products and services provided by companies with a commitment to positive social and environmental outcomes ("Doing Well by Doing Good," 2014). Consumers are stating that social purpose influences their purchasing decisions. If Americans can reconcile themselves to the necessary reality and need for immigrants, the negative social and political stigma of "illegal" will fade, particularly when they have been invited by US corporations (Marquardt et al., 2013).

The selection of an immigrant friendly strategy involves tradeoffs between costs, risks, difficulty and feasibility. Two strategic orientations have emerged: a low risk strategy of minimizing costs through advocacy and support efforts versus a higher risk strategy of "fairness now." These strategic orientations can be illustrated by contrasting the degree of cost and risk with the challenges and complexities of effective implementation, as illustrated in Figure 3:

Figure 3. Immigrant Friendly Strategic Tradeoffs



The issue of fair treatment of unauthorized workers as a competitive advantage is not so much a matter of "if" but of "where." Urban areas are much more tolerant of illegal immigrants than rural areas (Marquardt et al., 2013; Penaloza, 1995), and potentially rewarding new markets depend on a sufficient subpopulation density of immigrants and mixed households with goodwill for businesses that treat unauthorized workers fairly, raising potential economic impact. These relationships can be modelled in Figure 4:

Figure 4. Immigrant Friendly Strategic Tradeoffs

Immigrant Density	**Low** (Population Density)	**High** (Population Density)
High	Moderate SCA Strong Economic Presence Higher Discrimination	Strongest SCA: Strong Economic Presence Lower Discrimination
Low	Weak SCA Weak Economic Presence Higher Discrimination	Moderate SCA Weak Economic Presence Lower Discrimination

Population Density

Consequently, in many parts of the country this is a good opportunity for the restaurant industry to provide higher wages and implement better treatment of its under-appreciated immigrant workforce, and utilize those facets to help maximize profits and increase goodwill. To marginalize and exploit immigrants who have been enticed and invited to the U.S. to benefit its economy is not only disingenuous, but hypocritical. Doing so makes the U.S. minimally different than the countries many of our invited immigrant workers flee from. Is this a form of American apartheid? The practice of apartheid segregated black South Africans from white South Africans and stripped them of rights, political freedom, and employment opportunities. Black South Africans were required to carry permits to travel between cities and forced to find employment in low-skill environments. This is similar to the status of invited but undocumented immigrants in present day America. While they do not have the rights given to an ordinary citizen, their economical labor is essential in American industry (Goodman, 2014).

Accepting and profiting from certain behaviors – in this case, the hard work of immigrant workers regardless of their status, creates an implied contract. Implied contracts have the same legal effect as express contracts. In determining whether an implied contract exists based on a set of facts, the apparent intention of the involved parties is considered (Hartzog, 2014). In addition to the contractual rights that exist between the immigrant worker and the employer, these rights also exist between society and the immigrant. In this case, not only does the employer directly benefit from economical, efficient labor from the immigrant worker, society does as well. This non-accidental, acquiescence to immigrant workers arguably creates implied contractual rights for these individuals as members of our society (Jones-Correa & de Graauw, 2013). Benefiting from and tolerating immigration that is "outside" the law "effectively invites immigration outside the law" (Jones-Correa & de Graauw, 2013, p. 193). Consequently, such immigration cannot be labeled illegal because we have informally expanded the law to include them for our own benefit.

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EXPLORING EFFECTIVE ACCOUNTING ETHICS CPE FROM AN UPPER ECHELON THEORY PERSPECTIVE

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ABSTRACT

The purpose of this study was to explore if Certified Public Accountants (CPAs) who hold upper echelon positions value ethics continuing professional education (CPE) differently from non-upper echelon CPAs. In addition, this study explored if upper echelon CPAs viewed the effectiveness of completed ethics CPE differently compared to CPAs in non-upper echelon positions. Based on upper echelon theory, differences in survey responses were anticipated between the two groups. CPAs licensed by the Minnesota Board of Accountancy were surveyed regarding mandatory ethics CPE. CPAs self-reported their position titles. Based on position titles the survey population was coded as upper echelon or non-upper echelon. Across ten variables survey responses were statistically analyzed between the two groups. No statistically significant differences were found between the two groups. Open ended questions were also included in the survey. Responses to open ended questions were analyzed between upper echelon and non-upper echelon CPAs. Responses to open ended questions, both positive and negative, were similar between the groups. The residual question is why there were no differences.

Keywords: Ethics, Accounting, CPE, Upper Echelon Theory

INTRODUCTION

Bostan, Costuleanu, Horomnea, and Costuleanu (2011) stated that by its very nature, accounting is closely connected with ethics, morality, and religion. In addition, the accounting function is based on the concepts of ethical and moral nature: truth, honesty, regularity, reality neutrality, continuity, permanence, etc.

Although standards are set high, breakdowns occur at the individual and organizational levels. Unethical behavior within business and accounting has a long history in the United States. Fraudulent acts have taken their toll. "The days of unquestioned trust and admiration on the part of clients or the general public are past" (Frankel, 1989, p. 109). A consistent response to unethical behavior has been government regulation. Over time nine major legislative responses have been enacted ranging from the Owens-Glass Act of 1913 through the Sarbanes-Oxley Act (SOX) in 2002 (Rockness & Rockness, 2005). A majority of state boards of accountancy have also responded by requiring ethics continuing professional education (CPE) for license renewal. The purpose of this study was to explore if Certified Public Accountants (CPAs) who hold upper echelon positions value ethics CPE differently from non-upper echelon CPAs. In addition, this study explored if upper echelon CPAs viewed the effectiveness of completed ethics CPE differently compared to CPAs in non-upper echelon positions. Based on upper echelon theory (UET) the expectation was that there would be differences in responses from the two groups for all survey questions.

LITERATURE REVIEW

Ethics

The learned professions have recognized the importance of ethical behavior and have developed codes of professional ethics (Whittington & Pany, 2012). The American Institute of Certified Public Accountants (AICPA) Code effectively serves as a basic handbook on ethics for accountants (Duska & Duska, 2003). Sullivan (2004) discussed the importance of emphasizing the AICPA Code within ethics instruction.

The requirement of ethics specific CPE for CPAs has increased over the years. Indiana was the first state to require ethics CPE in 1988. Seven states required ethics CPE by 2001 (Fisher, Swanson, & Schmidt, 2007). Ten states required ethics CPE by 2004 (Romal & Hibschweiler, 2004). Thirty-two states required ethics CPE by 2005 (Fisher, Swanson, & Schmidt, 2007). Thirty-seven states required ethics CPE by 2006 (VanZante & Fritzsch, 2006). Rockness and Rockness (2010) reported 38 states requiring ethics CPE to renew a license to practice.

CPE of 120 hours every 3-year cycle was sanctioned by the AICPA in 1971, but was not mandatory until 1990. In response to the CPE mandate, Coffee & Beegle (1994) surveyed CPAs in practice and in education in all 50 states at the end of 1992 to determine their attitudes regarding mandatory CPE and its effectiveness. The results showed that mandatory CPE was beneficial and that it enhanced the accounting profession’s image. Most important respondents indicated that CPE improved the quality of their professional work and professional learning.

Wessels (2009) conducted a survey of North Carolina CPAs to gather information regarding perceptions of the effectiveness of mandatory CPE. This study was CPE in general, not ethics CPE specific. Positive survey results related to CPE effectiveness included protecting the public (46% of respondents) and in offering valuable contacts with peers and experts in the field (42% of respondents).

When surveyed, newly licensed Texas CPAs were found to have a relatively positive impression of required ethics training within college curriculum, but a somewhat less positive impression regarding the effectiveness of required ethics CPE. Some Texas CPAs expressed concerns over the frequency, redundancy, and irrelevance of the ethics CPE (Hurtt & Thomas, 2011).

Upper Echelon Theory

Hambrick (2007) stated that the central idea of upper echelon theory (UET) involves two interconnected parts. First, executives’ actions are based on personalized interpretations of the strategic situations they encounter. Second, the personalized interpretations are a function of experience, values, and personalities. In addition, two subordinate ideas are involved with UET. First, focusing on the characteristics of the top management team (TMT) will produce a stronger basis of organizational outcomes, as opposed to focusing on a single top executive. Second, demographic characteristics of the TMT are valid proxies for executives' cognitive frames, although information is incomplete and not precise.

UET was first introduced by Hambrick and Mason in 1984. UET recognized that top executives influence the outcomes of organizations. Organizational outcomes can therefore be partially predicted based on the background characteristics of top executives (Hambrick & Mason, 1984). Since 1984, refinements have been made to the concept of UET. Refinements include the moderators of managerial discretion and executive job demands. The effectiveness of UET is found to be related to the amount of managerial discretion afforded the TMT. The accuracy of predictions based on UET is directly proportional to the level of discretion the TMT has (Hambrick, 2007).

Recognizing that the workload of CEO's varies by organization, the level of job demands on executives has also been found to be a moderating factor on the application of UET. When job demands are high, executives may take mental shortcuts, relying less on analysis and more on past experience. Thus, high job demands produce outcomes that correlate to executives' backgrounds, educational experience, age, and tenure (Hambrick, Finkelstein, & Mooney, 2005).

Van der Zee & Swagerman (2014) explored whether the issue of ethical behavior was an influence on the composition of board of director members. The board of directors was viewed as the TMT under the UET. They examined the makeup of the board of directors of 50 companies in order to determine if the characteristics of the board members changed as a result of the Sarbanes-Oxley Act (SOX). SOX was seen as increasing the responsibilities of the boards in order to prompt a higher degree of ethical behavior. Ultimately one goal of the study was to determine if companies changed their boards for the purpose of inducing more ethical behavior within the organizations. They found indications that companies did change board member characteristics after SOX, implying that firms either consciously or unconsciously utilize the UET. They concluded that companies not only believe that employees in the upper echelons define corporate strategy, but that they can also influence ethical behavior. They emphasize that their study doesn't prove the relationship between the UET and ethical behavior, but does show that companies believe that there is a relationship. This is consistent with Hambrick & Mason's (1984) statement that UET may apply to both strategic decision making and an organization's ethical behavior.

Carpenter, Geletkanycz, & Sanders (2004) viewed the core of the UET perspective as focusing on executive cognitions, perceptions, and values. These components then influence the process of strategic choices and ultimately performance outcomes. They saw three central tenets: (1) strategic choices within firms are reflections of the values and cognitive bases of internal power brokers, (2) the values and cognitive bases are an extension of the observable – characteristics of the power brokers (e.g. education, work experiences), and (3) significant organizational outcomes will be associated with items one & two. This is consistent with Hambrick (2007) who stated a subordinate concept to UET is that demographic characteristics of executives are a valid, although incomplete and imprecise, proxy for defining the cognitive frames of executives.

"Leaders should be a key source of ethical guidance for employees" (Brown, Treviño, & Harrison, 2005, p. 117). The leadership of organizations have been found to influence goals and behaviors by setting the ethical "tone at the top" (Brown & Mitchell, 2010; Treviño, Brown, & Hartman, 2003). Based on their literature review Treviño, Brown, & Hartman (2003) found that executive ethical leadership was widely believed to be important due to the potential impact of senior executives on both the ethical culture and the ethical conduct of the organization. "Integrity is probably one of the most frequently cited corporate ethical values in the last decade" (Chun, 2005, p. 271).

In contrast to the upper echelon, Gentry, Cullen, Sosik, Chun, Leupold, & Tonidandel (2013) analyzed the importance of integrity, bravery, perspective, and social intelligence in predicting the performance of middle-managers. Only social intelligence was statistically significant in impacting performance ratings of middle-managers. Social intelligence ranked the most important characteristic while integrity was significantly less of a factor. In addition, they found that middle-managers were being promoted based on performance in the middle level. Integrity was a non-factor in the promotion process. They also examined the relative importance of character strengths for predicting performance between middle-managers and top-level executives. They found that bravery and integrity were significant factors in predicting performance of top-level executives.

Integrity is a term which frequently represents a wide variety of constructs and ideas that usually overlap with other terms like morality, ethics, honesty, trustworthiness, and conscientiousness (Lowe, Cordery, & Morrison, 2004). Based on their literature review Palanski & Yammarino (2007) compiled five categories of integrity: (1) wholeness, (2) consistency of words and actions, (3) consistency in adversity, (4) being true to oneself, and (5) moral/ethical behavior. In addition, they stated that integrity is associated with pro-active ethical or moral behavior. Integrity is not just the lack of unethical or immoral actions being discovered. They also believed integrity was tied to certain specific moral and ethical behaviors.

The AICPA Code of Professional Conduct Section 0.300.040 Paragraph .04 states "integrity is measured in terms of what is right and just." Integrity requires observing "both the form and the spirit of technical and ethical standards" (American Institute of Certified Public Accountants, 2016). Integrity is the benchmark CPAs are to use to test all decisions.

Libby & Thorne (2007) developed a typology of auditors' virtues through in-depth interviews with nine exemplars in the auditing community. They then used Pincoffs' typology of virtues to organize the auditors' virtues. Pincoffs divided virtues between instrumental and non-instrumental. Instrumental virtues are qualities that have a direct positive effect on the actions an individual takes. Non-instrumental virtues affect actions indirectly through the development of an individual's intention to act in accordance with virtues. Non-instrumental virtues are divided between moral and meliorating. Moral virtue is then subdivided between mandatory and non-mandatory categories. Mandatory moral virtue includes honesty, sincerity, truthfulness, and loyalty. For auditors moral virtue is necessary when formulating sound professional judgment regarding the application of generally accepted accounting principles. Non-mandatory virtue includes benevolence, altruism, selflessness, and sensitivity. For auditors non-mandatory virtues are necessary when formulating judgment where the public's interest is the primary issue.

Recognizing the commonality of concepts among morality, ethics, values, and integrity this work is based on UET being applicable to the research involved. This is the case as the upper echelons of an organization base their decisions partly on virtue and virtue is associated with ethics. These factors point to UET as applicable to the study of ethics CPE between the upper echelon and the non-upper echelon within an organization or field. Our expectation was that the upper echelon CPAs would value ethics CPE higher than the non-upper echelon CPAs. This expectation was based 1) on the responsibility that the upper echelon has for the actions of the organization and 2) the tone regarding ethics which is set at the top. In addition, based on the literature the concept that leadership and middle-managers serve a different role has been established. Based on having different roles, performance is judged differently. We had an expectation that when surveyed leaders (upper echelon) and those with non-leadership roles would view the effectiveness of ethics CPE differently.

RESEARCH DESIGN

CPAs licensed by the Board of Accountancy in the State of Minnesota were surveyed regarding the outcomes of completed ethics CPE. Active licensed CPAs are required to complete eight hours of ethics CPE as part of 120 hours over a three year rolling timeframe. An equal chance random sample of active licensed CPAs was obtained from Minnesota's Bookstore. Minnesota's Bookstore serves as a centralized publishing house selling state agency products. A list of 1,059 active licensed CPAs (of 9,252 total) was purchased. Of the 1,059 CPAs 125 responses (11.8%) were received via Survey Monkey™.

CPAs responded to questions on an 11 point Likert scale regarding the outcome of ethics CPE. Questions included "As a result of taking the required 8-hours of ethics CPE":

1. …my ability to recognize ethical issues has increased.
2. …I have an increased knowledge of ethical standards.
3. …my ethical reasoning ability has increased.
4. …I have a greater understanding of the concept of auditor independence.
5. …I have a greater understanding of the role of the accounting profession in business and society.
6. …I feel that I make better ethical decisions.
7. …I feel I have a framework for making ethical decisions.
8. …I consider the ethics of more decisions now.

These eight questions address the outcome of CPE or the benefits from taking ethics CPE. In addition, CPAs were asked if the 8-hours of ethics CPE was beneficial to them personally and if ethics CPE was beneficial to the profession. These two questions look at how the respondent valued ethics CPE.

For all questions the research expectation was that CPAs with upper echelon positions would respond differently than CPAs with non-upper echelon positions. We expected that upper echelon respondents would receive less personal benefit from ethics CPE. Our expectation was based on upper echelon respondents having encountered more ethical issues in practice resulting in lower scores for the first eight questions. The opposite effect was anticipated for the last two questions. We expected that upper echelon respondents would place a higher value on additional ethics education. Our expectation was based on the upper echelon's experience with ethical situations at a strategic level in their organizations.

As part of the survey process, CPAs self-disclosed their position title. Table 1 shows the breakdown of how CPAs self-reported their position title. For statistical purposes the CPAs with the titles of Partner, Vice President, CFO, Owner, President, CEO, and Chairman (other-please specify) were considered upper echelon. Upper echelon CPAs numbered 48 of 125 (38.4%). For comparison purposes demographic information was not readily available from the Minnesota State Board of Accountancy. Membership profile information was available from the

Table 1. Self-reported Position Titles

My current position title is best described as (select only one)		
Answer Options	**Response Percent**	**Response Count**
Staff Accountant	6.4%	8
Tax Accountant	5.6%	7
Partner	19.2%	24
Vice President	1.6%	2
CFO	6.4%	8
Internal Auditor	4.8%	6
Teacher	0.0%	0
Manager	12.0%	15
Tax Manager	7.2%	9
Owner	6.4%	8
President	0.0%	0
Director	4.8%	6
Professor	0.8%	1
Adjunct Faculty	0.0%	0
Senior	4.8%	6
Tax Senior	1.6%	2
Controller	4.0%	5
CEO	0.8%	1
Analyst	3.2%	4
Instructor	0.8%	1
Retired	0.8%	1
Other (please specify)	8.8%	11
answered question		**125**
skipped question		**1**

Minnesota Society of CPAs (MNCPA). We used the MNCPA data as a proxy for licensure demographic makeup. MNCPA (n.d.) reported a membership of more than 9,000 including retirees. Corporate MNCPA membership is reported as CFO/CEO/Owner (9.5%) and Executive/Management (10.8%). Public accountant MNCPA membership is reported as Managing Partner (2.4%), Sole Practitioner (6.6%), and Partner (11.8%). These MNCPA categories were classified as the upper echelon which account for 41.1% of MNCPA total membership. The survey population of upper echelon respondents was 38.4% which is reasonably consistent with the MNCPA upper echelon population of 41.1%.

CPAs also self-reported their age, gender, and ethnicity. Of the 125 survey respondents 115 CPAs provided their age. The average age of the 48 upper echelon CPAs was 50.7. The average age of the 77 non-upper echelon CPAs was 43.8. MNCPA (n.d.) membership information did not include an age category.

Of the 125 survey respondents 120 provided information regarding gender. Upper echelon CPAs included 15 females, 32 males, and one non-reported. Non-upper echelon CPAs included 27 females, 46 males, and four non-reported. Overall survey respondents involved 35% female and 65% male. MNCPA (n.d.) demographic information reported 38% female and 62% male. The survey demographic for gender is deemed reasonably consistent with the MNCPA numbers.

Of the 125 survey respondents 116 provided information regarding their ethnicity. Upper echelon CPAs included one Hispanic, two Asians, three non-reported, with the remainder reporting as Caucasian. Non-upper echelon CPAs included one Asian, five non-reported, with the remainder reporting as Caucasian. MNCPA (n.d.) membership information did not include an ethnicity category.

RESULTS

Table 2 provides mean and standard deviation differences between CPAs with upper echelon positions (coded 1.00) and CPAs with non-upper echelon positions (coded .00). For the ten questions mean scores varied from .02 to .70 between groups. Table 3 provides the results of the Mann-Whitney U Test for all questions. Based on Table 3, no statistically significant differences were found between survey responses of CPAs with upper echelon positions and CPAs with non-upper echelon positions.

CPAs were also given the opportunity to provide comments, 25% of upper echelon CPAs and 18% of non-upper echelon CPAs provided responses. Topics raised included the amount of ethics CPE required, the validity of ethics CPE, the effectiveness of CPE, and on the positive side the importance of ethics CPE.

Five upper echelon CPAs and three non-upper echelon CPAs commented regarding the amount of ethics CPE. All preferred fewer than eight hours of ethics specific CPE. Suggestions ranged from one to four hours per 120 hour licensing cycle. Requiring eight hours of ethics CPE each three year license renewal cycle Minnesota requires the most ethics CPE of all jurisdictions (Fisher, Swanson, & Schmidt, 2007).

Table 2. Survey Statistics: As a result of taking the required 8-hours of ethics CPE…

.00 non-upper echelon 1.0 Upper echelon		1. my ability to recognize ethical issues has increased.	2. I have an increased knowledge of ethical standards.	3. my ethical reasoning ability has increased.	4. I have a greater understanding of the concept of auditor independence.	5. I have a greater understanding of the role of the accounting profession in business and society.	6. I feel that I will make better ethical decisions.	7. I feel I have a framework for making ethical decisions.	8. I consider the ethics of more decisions now.	9. The 8-hour ethics CPE I am required to take for maintaining my license is beneficial to me.	10. The 8-hour ethics CPE I am required to take for maintaining my license is beneficial to the profession.
.00	Mean	6.6133	7.4933	6.7733	7.1733	6.8667	6.4933	7.1867	6.4267	6.2933	7.2703
	N	75	75	75	75	75	75	75	75	75	74
	Std. Deviation	2.40435	1.96161	2.48005	2.19566	2.07516	2.36171	2.16041	2.26115	2.58255	2.61344
1.00	Mean	6.5957	7.5319	6.1702	6.4894	6.1702	5.8298	6.7447	5.9362	5.7447	6.6596
	N	47	47	47	47	47	47	47	47	47	47
	Std. Deviation	2.31873	2.12491	2.47877	2.33007	2.31553	2.59028	2.63313	2.53158	3.05364	2.93611
Total	Mean	6.6066	7.5082	6.5410	6.9098	6.5984	6.2377	7.0164	6.2377	6.0820	7.0331
	N	122	122	122	122	122	122	122	122	122	121
	Std. Deviation	2.36209	2.01747	2.48682	2.26363	2.18810	2.46313	2.35307	2.37080	2.77411	2.74753

Table 3. Hypothesis Test Summary Statistics

	Null Hypothesis	Test	Sig.	Decision
1	The distribution of my ability to recognize ethical issues has increased. is the same across categories of Upper_Echelon.	Independent-Samples Mann-Whitney U Test	.748	Retain the null hypothesis.
2	The distribution of I have an increased knowledge of ethical standards. is the same across categories of Upper_Echelon.	Independent-Samples Mann-Whitney U Test	.835	Retain the null hypothesis.
3	The distribution of my ethical reasoning ability has increased. is the same across categories of Upper_Echelon.	Independent-Samples Mann-Whitney U Test	.116	Retain the null hypothesis.
4	The distribution of I have a greater understanding of the concept of auditor independence. is the same across categories of Upper_Echelon.	Independent-Samples Mann-Whitney U Test	.088	Retain the null hypothesis.
5	The distribution of I have a greater understanding of the role of the accounting profession in business and society. is the same across categories of Upper_Echelon.	Independent-Samples Mann-Whitney U Test	.069	Retain the null hypothesis.
6	The distribution of I feel that I will make better ethical decisions. is the same across categories of Upper_Echelon.	Independent-Samples Mann-Whitney U Test	.128	Retain the null hypothesis.
7	The distribution of I feel I have a framework for making ethical decisions. is the same across categories of Upper_Echelon.	Independent-Samples Mann-Whitney U Test	.439	Retain the null hypothesis.
8	The distribution of I consider the ethics of more decisions now. is the same across categories of Upper_Echelon.	Independent-Samples Mann-Whitney U Test	.273	Retain the null hypothesis.
9	The distribution of the 8-hour ethics CPE I am required to take for maintaining my license is beneficial to me. is the same across categories of Upper_Echelon.	Independent-Samples Mann-Whitney U Test	.276	Retain the null hypothesis.
10	The distribution of the 8-hour ethics CPE I am required to take for maintaining my license is beneficial to the profession. is the same across categories of Upper_Echelon.	Independent-Samples Mann-Whitney U Test	.304	Retain the null hypothesis.

Asymptotic significances are displayed. The significance level is .05.

Three upper echelon CPAs commented on the validity of ethics CPE with the following comments:

> "Ethics is not something that one develops from an eight-hour seminar."
>
> "Ethics is difficult if not impossible to legislate. I don't think that the eight-hour requirement has made people more ethical."
>
> "I am disappointed in the classes that show CPAs in practice how to keep clients without ethics from losing their licenses. Accounting has devolved into a set of rules that, if you can out maneuver them, are ok to break."

Three non-upper echelon CPAs commented on the validity of ethics CPE with the following comments:

> "Ethics is not something that can be taught in an eight-hour class period over three years. Ethics is something that people have learned over their lifetime. I think the only way to make the ethics requirement worth it is by having real examples of situations and how you are supposed to respond. And the responses need to be real life responses and not the 'canned responses'."
>
> "The concept of ethics training/classes required by governing bodies is just a facade. The real intent of the program is just to make themselves look good (which in essence is not ethical). The true character of an individual determines how he will act or react when his ethics are put to the test. The ethics courses I have taken would influence the actual actions of a CPA in less than 1% of the cases. The CPE requirement is generally just a joke. The CPE requirement may make CPAs (individually and corporately as a group, such as AICPA or MN Soc) LOOK better but it doesn't MAKE them better. Based on 35 years of experience in the CPA business, people who ARE ethical people follow ethical practices in their business transactions, people who are NOT ethical people will NOT, 1,000 hours of CPE on business ethics will NOT change that. The one benefit I have seen from ethics CPE is attaining information on some rules of the AICPA or MN BOA and other governing bodies of which I may not have been aware."
>
> "I believe that over the years the State Board of Accountancy has over complicated the reporting rules. I question the benefit of doing so."

Three upper echelon CPAs commented on the effectiveness of ethics CPE with the following comments:

> "While the ethics requirement is a law, it is just a money maker for state societies & the AICPA. The profession can say we have made it a requirement to take ethics. I don't see any less convictions for accountants committing crime. This is just a check box for the politicians and the AICPA."
>
> "I know and always have considered ethics in my decisions even before this was required. It has not changed my behavior in the slightest."

> "I think it's great to be kept abreast of developments in the area of professional standards; as CPA's that is part of our professional responsibility. I don't feel that the eight-hour requirement accomplishes much. The responsible professionals will still run their practice accordingly and the bad apples will make the headlines regardless of the eight-hour requirement."

Three non-upper echelon CPAs commented on the effectiveness of ethics CPE with the following comments:

> "I think unethical people are that way and no amount of classes will alter that mindset. I am not convinced that having people sit through a class will prevent this kind of behaviour. It is, however, good PR for the industry and shows that the profession is at least trying to do something to prevent future mishaps."

> "TAKE IT CAUSE I HAVE TO - MOST CASES A BORING, WORTHLESS SEMINAR"

> "I strongly encourage changes to the ethics requirements for CPA's not in public practice (either tax or auditing). Even though I'm licensed, I am now in governmental internal auditing and the ethics challenges are much different than the CPE options available."

Upper echelon CPAs providing positive comments include:

> "We all could and should give more thought to our decisions regarding ethics and what is the right thing to do."

> "I hope your survey can improve delivery of ethic courses. This is a very important area that needs better use of resources."

Non-upper echelon CPAs providing positive comments include:

> "I agree that the ethics requirement is essential to the profession and to personal growth."

DISCUSSION

Although mean scores were higher for non-echelon survey respondents for all ten survey questions (Table 2), none of the questions were found to be statistically significant (Table 3). One should note that mean scores rounded to whole numbers would round to the same number for the majority of items, inferring no differences. Comments provided by CPAs were also similar in number, category, and nature. In examining the average age of the upper echelon/non-upper echelon groups, the average age of the two groups differed by only 6.9 years although ages of individual CPAs ranged from 24 to 69. As a whole the makeup of respondent characteristics for upper echelon/non-upper echelon and gender was consistent with available MNCPA membership characteristics. The anticipated outcome that differences would be found between the responses of upper echelon and non-upper echelon CPAs was not found.

The reason for the lack of difference in responses is not determinable from this study and is a potential for future study. Based on UET and the middle manager work of Gentry et al (2013) there was an anticipated difference in responses from upper echelon and non-upper echelon CPAs. Had respondents been from a single organization there would be room to argue that the upper echelon had communicated effectively their views to the non-upper echelon. However, survey respondents were not from a single organization and it's doubtful that all organizations are equal in communicating ethics CPE value to all members.

One possible explanation for the lack of variance is the ethics CPE requirement itself. Comments provided to the open ended questions included the inability to develop ethics in an eight hour session and the need to make ethics CPE a better use of resources. Minnesota does require the most ethics CPE for license renewal (Fisher, Swanson, & Schmidt, 2007). Note that in Table 2 as a group CPA's did respond somewhat positively (7.03 mean score on an 11 point Likert scale) that ethics CPE is good for the profession, but were neutral (6.08) on ethics CPE being beneficial to them personally. This is consistent with Coffee and Beegle (1994) who found that mandatory CPE enhanced the image of the accounting profession. The negative comments provided by both upper echelon and non-upper echelon CPAs question the value of ethics CPE. The positive comments may point to issues with the ethics CPE as currently being offered. Future study should focus on content and format of CPE offerings. In addition, future study may explore if in-house ethics training and oversight makes ethics CPE for licensure redundant.

With comments questioning the value of ethics CPE and that improvement is needed both providers and participants in ethics CPE should evaluate content carefully. Accountants taking CPE only to meet the licensure criteria and personal scheduling demands may be missing out on opportunities that are more effective and useful. The comment regarding CPE involving real situations and thoughtful responses (not canned) may provide insight in selecting effective CPE choices.

LIMITATIONS

Since Minnesota requires the most ethics CPE the responses may not be generalizable to states requiring fewer hours for license renewal. The survey did not address other differences between states regarding ethics requirements to qualify to sit for the CPA exam or a separate ethics exam to be licensed.

CPAs self-reported their industry segment and their job title. The size of organizations that employ CPAs vary from small CPA firms to multi-national corporations. It is possible that the analysis was skewed as the inferred meaning of job titles may vary based on organizational size and/or depth of the organizational chart. It is also possible that in surveying CPAs the data is siloed within the accounting function which would be contrary of the concept within UET that feedback from the TMT provides a broader and more robust analysis of an organization. The expectation within this study was that the factors of job titles varying by organization size and CPAs providing a siloed response cancels each other out. In other words, because job titles vary by organizational size then the responses are not siloed within one management function.

Questions were not authored to gauge whether CPAs believe they are conducting themselves in an ethical manner, thus making ethics CPE unnecessary. This was done intentionally as to not "steer" responses in a given direction. This area could be explored in future study.

CONCLUSION

Accounting is closely connected with ethics, morality, and religion (Bostan, Costuleanu, Horomnea, & Costuleanu, 2011). A majority of state boards require ethics specific CPE. CPA's have stated that mandatory CPE (albeit not ethics specific) is effective for protecting the public (Wessels, 2009).

UET states that executive actions are based on personalized interpretations of strategic situations and those interpretations are a function of experience, values, and personalities. UET recognizes that top executives influence the outcomes of organizations. Upper echelons define strategy and can influence ethical behavior (Van der Zee & Swagerman, 2014). Carpenter, Geletkanycz, and Sanders (2004) viewed the core of the UET perspective as focusing on executive cognitions, perceptions, and values. These factors influence the process of strategic choices and ultimately performance outcomes.

"Leaders should be a key source of ethical guidance for employees" (Brown, Treviño, & Harrison, 2005, p. 117). Considering the above factors we believed that based on UET upper echelon members who are CPAs would view ethics CPE differently than non-upper echelon CPAs. Our research did not find this to be the case. The residual question is why not, which is left for further study.

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REGULATORY FOCUS, EMOTIONS AND TECHNOLOGY ADAPTATION

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ABSTRACT

Due to the constantly changing and involving information technology (IT) in recent decades, employees are continuously faced with new IT tools at workplaces. IT adoption is a dynamic process and in the initial use of new IT tools employees can experience strong emotions that determine their technology adaptation behaviors. This research draws on the Regulatory Focus Theory (RFT) and Cognitive Appraisal Theory (CAT) to examine the effects of IT users' regulatory foci on their emotions and technology adaptation behaviors. The RFT distinguishes between two motivational orientations: the promotion focus that concerns advancement, growth and maximization of gains, and the prevention focus that concerns security, safety and minimization of losses. Recognizing the critical role of regulatory focus in determining evaluative and emotional sensitivities as well as locus of control, this research proposes that individuals' regulatory foci are significant antecedents influencing their cognitive evaluations of and emotional responses to their IT usage experiences, which consequently determine their technology adaptation behaviors. More specifically, it posits that positive or negative disconfirmation of desires about performance of a new IT will elicit challenge or deterrence emotional responses in promotion-focused individuals, whereas positive or negative disconfirmation of norms about performance of a new IT will evoke achievement or loss emotional responses in prevention-focused individuals. These discrete emotional responses will in turn lead to distinct technology adaptation behaviors.

Keywords: Promotion Focus, Prevention Focus, Emotions, Technology Adaptation

INTRODUCTION

In recent decades, rapid information technology (IT) innovations have given rise to constantly changing and evolving ITs (Lyytinen & Rose, 2003). As a result of organizations' continuous efforts in implementing IT innovations for operational improvements and strategic advantages (Bala & Venkatesh, 2016), employees are constantly faced with new IT tools at workplaces. Innovation research has shown that innovation adoption (e.g., IT innovation adoption) is a dynamic process characterized by changing patterns, or diffusion, of the use of innovation that evokes strong emotions in users (Wood & Moreau, 2006). Thus, the inclusion of emotional responses increases the predictive power of traditional models of innovation diffusion (Wood & Moreau, 2006). The role of emotions in IT use has also received significant attention in the field of IS (information systems) research (Bagozzi, 2007; Beaudry & Pinsonneault, 2005; Beaudry & Pinsonneault, 2010; Deng & Poole, 2010; Gregor, Lin, Gedeon, Riaz & Zhu, 2014; Ortiz de Guinea & Markus, 2009; Stein, Newell, Wagner & Galliers, 2015; Zhang, 2013; Yin, Bond & Zhang, 2014). In technology acceptance research (e.g., Davis, 1989), the emotion concept has been incorporated in a few empirically validated extensions of technology acceptance model (Venkatesh, 2000). Although cognitive constructs are still the major theoretical considerations in studying IS (information systems) usage behaviors and emotions have generally been regarded as supplement to cognitive constructs, some recent research suggests that those constructs, such as perceived usefulness of IT, which have been once understood as purely cognitive, can be detected at the neuronal level in the brain areas normally associated with emotional activity (Dimoka, 2011; Dimoka, 2012).

Prior IS research suggests that an IT event, such as implementation of new IT tools, elicits particular emotions in users depending on how the IT event is appraised – firstly, as an opportunity or a threat to the achievement of user's personal goal; and secondly, as controllable or uncontrollable by users (Beaudry & Pinsonneault, 2010). Based on these two types of cognitive appraisals of the IT event, one of four classes of emotions may be triggered: challenge emotions, achievement emotions, deterrence emotions, or loss emotions (Beaudry & Pinsonneault, 2010). Beaudry and Pinsonneault (2010) also examined the impact of one exemplary emotion (excitement, happiness, anxiety, and anger) per class on IT use and revealed that emotions influence IT use directly or indirectly through their influence on adaptation behaviors or strategies (Beaudry & Pinsonneault, 2005; Beaudry & Pinsonneault, 2010). For example, happiness has a positive direct effect on IT use, whereas anger has a positive indirect effect on IT use through users' seeking social support. The behavior of seeking social support is part of a general disturbance handling strategy that helps to restore emotional stability and minimize perceived threat (Beaudry & Pinsonneault, 2005).

While these findings provide understanding on the effects of emotions on IT use, the extant IS research does not address the effects of individual differences on users' emotion responses to an IT event. The literature on emotions suggests that individual difference factors play important roles in the experience of emotions and subsequent behavioral responses (Krohne, 2003). This research recognizes the importance of individual differences in the emotional experience of IT use, and attempts to investigate the psychological aspects of individuals in order to understand IT emotional experience and adaptation behaviors more thoroughly. In this regard, the Regulatory Focus Theory (RFT) provides an appropriate framework to explain this psychological aspect that influences the variation of the individual differences on emotions and IT adaptation behaviors. The RFT distinguishes between two major motivational orientations – promotion focus and prevention focus (Higgins, 1997; Higgins, 1998). Individuals with a promotion focus are driven by the need for attainment of positive outcomes, and are thereby oriented toward the maximization of gains, such as advancement and accomplishment. In contrast, individuals with a prevention focus are driven by the need for safety and avoidance of negative outcomes, and hence are oriented toward the minimization of losses and security. As a result, individuals with a promotion focus regulate their behaviors toward positive outcomes, and those with a prevention focus regulate their behaviors away from negative outcomes. Whether an individual adopts a promotion or prevention focus influences his/her sensitivities toward positive or negative outcomes (Brendl, Higgins & Lemm, 1995), locus of control (Tang, 2009), and the type of experienced emotions (e.g., Higgins, Shah & Friedman, 1997). Thus, the emotional and motivational consequences of success or failure differ depending on one's regulatory focus. The principles of regulatory focus are important to consider in the context of new IT implementation because these higher order goals of approach and avoidance provide insight into individuals' evaluative sensitivities and emotional framing of IT implementation-related events.

THEORETICAL BACKGROUND

Emotion Theories

Cognitive Appraisal Theory

The Cognitive Appraisal Theory (CAT) views emotions as "valenced reactions to events, agents, or objects, with their particular nature being determined by the way in which the eliciting situation is construed" (Ortony, Clore & Collins, 1988, p. 13). It emphasizes that experience of different emotional feelings is determined by how the emotion-eliciting stimulus is interpreted along a number of appraisal dimensions (Folkman & Moskowitz, 2004; Frijda, 1986; Lazarus, 1966; Lazarus, 1991; Lazarus & Folkman, 1984; Ortony et al., 1988; Roseman, 1984; Roseman, 1991; Scherer, 1988; Smith & Ellsworth, 1985). There is much inconsistency in the number of characteristics of a stimulus to be appraised as well as in their definitions. For example, Roseman (1991) proposed five appraisal dimensions, Smith and Ellsworth (1985) found six, and Scherer (1988) suggested as many as nine. However, recurrent themes are evident in a number of "independently developed, yet highly convergent" (Scherer, 1988, p. 91) perspectives regarding what underlying appraisals cause emotions (Frijda, 1986; Ortony et al., 1988; Roseman, 1984; Roseman, 1991; Scherer, 1988; Smith & Ellsworth, 1985). "Several appraisal dimensions – valence or pleasantness-unpleasantness, certainty, controllability and agency or responsibility – are found in most or all analyses" (Frijda, 1987, p. 116). Patterns of appraisals along these dimensions provide a basis for distinguishing discrete emotions (Ellsworth & Smith, 1988; Frijda, 1993; Izard, 1992; Lazarus, 1991; Smith & Ellsworth, 1985). For example, excitement, an emotion of positive valence, is associated with appraisals of certainty of what happened and self-responsibility/control for positive events. Anger, which is of negative valence, is associated with an elevated sense of certainty and other-responsibility/control for negative events.

The most important cognitive appraisal dimension of emotions is the appraisal of outcome desirability (often referred to as pleasantness or goal achievement), which refers to the appraisal of how desirable or undesirable (positive or negative) an event's outcome is perceived to be with respect to personal goals. It is a cognitive assessment of whether a situation is good or bad relative to some personal benchmark and is widely regarded as the most fundamental appraisal of stimuli. Outcome desirability accounts for the majority of variance (as much as 88% of variance) in emotions and determines the valence of emotions by distinguishing between positive and negative emotions (Ellsworth, 1994; Ruth, Brunel & Otnes, 2002; Smith & Ellsworth, 1985). For example, positive emotions, such as happiness, gratitude, and pride, result from perceived desirable outcomes; while negative emotions, such as disappointment, anger, and shame, are caused by perceived undesirable outcomes.

However, appraisals of positive/negative outcomes alone are not sufficient to distinguish between specific emotions. Other appraisal dimensions are required to combine with outcome desirability to evoke specific emotions. The next most influential appraisal dimension of emotion identified by prior work is the appraisal of agency (Ortony et al., 1988; Roseman, 1991; Smith & Ellsworth, 1985), which is concerned with whom or what (i.e. oneself, another person or thing, or the general circumstances) is perceived to be the cause of an outcome. The appraisal of agency is most important in differentiating among discrete emotions of the same valence (Ellsworth & Smith, 1988; Ortony et al., 1988; Roseman, 1991; Ruth et al., 2002; Smith & Ellsworth, 1985). For example, the emotions of anger, shame, and disappointment are all negative in valence, but they differ in terms of the appraisal of agency. Anger results from highly perceived other agency; shame is a result of highly perceived self agency; and disappointment is caused by highly perceived circumstance agency. Likewise, the emotions of gratitude, pride, and happiness, while all being positive emotions, are respectively characterized by high other agency, high self agency, and high circumstance agency. The concept of agency is derived from attribution theory, which also includes a dimension related to controllability – whether an agent had control over the commission of an act. In general, when someone is responsible for an event it is believed that he/she had control over the event, otherwise the event is attributed to others or circumstance. It was found that appraisals of agency and controllability combine to explain the second highest amount of variance in emotions after outcome desirability (Ruth et al., 2002; Smith, Haynes, Lazarus & Pope, 1993). Some researchers propose a broad definition of agency that encompasses both the agent and his/her perceived control over the event being appraised (Watson & Spence, 2007).

The Functional View of Emotions

The functional view of emotions suggests that emotions provide individuals with the ability to respond to the changes in their surrounding environment by triggering different psychological situations and behaviors (Frijda, 2005; Mehrabian & Russell, 1974). According to Schwarz's "affect as information" framework (Schwarz, 1986; Schwarz, 1990), the halo effect of emotional response toward a stimulus carries over to the evaluation of stimulus characteristics and general attitude to the stimulus (Norman, 2003; Rafaeli & Vilnai-Yavetz, 2004; Vilnai-Yavetz & Rafaeli, 2006).

It has been well established that emotions influence people's decision-making and judgments (Lerner & Keltner, 2000; Lewis & Barrett, 2009), such as social judgment (Keltner, Ellsworth & Edwards, 1993), risk perception (Lerner & Keltner, 2000; Lerner & Keltner, 2001), and attribution (Lerner, Goldberg & Tetlock, 1998). Schwarz and Clore's study (1983) suggests that people tend to reply on their emotions as easily accessible information to judge new objects. People experiencing negative emotions may refer to their negative feelings as a sign that they dislike a new object; on the contrary, feelings of positive emotions may be taken as a sign of liking a new object.

Consistent with Schwarz's (1986) notion of "feelings as information," positively valenced emotions inform individuals that the world is a safe place, one characterized by presence of positive outcomes or lack of threats to current goals; however, negatively valenced emotions tell the person that the current situation is problematic, characterized by a lack of positive outcomes or a threat of negative outcomes. To the extent that individuals are motivated to obtain positive outcomes and avoid negative outcomes, negatively valenced emotions cause avoidance behaviors, such as physical movement away from the stimuli; whereas positively valenced emotions induce approach actions, such as physical movement toward, staying with, and exploring the environment. There has been ample evidence that emotional valence is a significant predictor of approach–avoidance behaviors, with positively valenced emotions (e.g., pleasantness) motivating approach tendency and negatively valenced emotions (e.g., unpleasantness) promoting avoidance behavior in a variety of environments (Frijda, Kuipers & Schure, 1989; Mehrabian & Russell, 1974; Menon & Kahn, 2002; Schwarz, 1986). The impact of emotions even goes beyond the influence of affective valence. More recent research findings highlight the differential influence of discrete emotions with the same valence on cognition and behaviors (DeSteno, Petty, Rucker, Wegener & Braverman, 2004; Griskevicius, Shiota & Neufeld, 2010; Lerner & Keltner, 2000; Raghunathafn & Corman, 2004; Yi & Baumgartner, 2004).

Emotions in IS Research

In IS Research, it has been suggested that individuals evaluate an IT implementation event along two appraisal dimensions: first, to determine whether the new IT constitutes a threat or an opportunity to the achievement of individuals' personal goals (primary appraisal); and second, to assess the extent of control individuals have over the expected outcomes of IT implementation (secondary appraisal) (Beaudry & Pinsonneault, 2010). Depending on an individual's appraisals of IT implementation, he/she may experience one of four classes of emotions: challenge emotions (e.g., excitement, hope), triggered by appraisals of opportunity and high control; achievement emotions (e.g., happiness, relief), evoked by appraisals of opportunity and low control; deterrence emotions (anxiety, distress), activated by appraisals of threat and high control; and loss emotions (anger, frustration), aroused by appraisals of threat and low control (Beaudry & Pinsonneault, 2010). Beaudry and Pinsonneault (2010) further demonstrate how specific emotions influence IT use directly or indirectly through their influence on adaptation behaviors or strategies. For example, excitement is positively associated with IT use through task adaptation, which involves users' modifying their work practices to maximize benefits from the new IT. Happiness is directly positively related to IT use. Anger is positively related to IT use through seeking social support. And anxiety is negatively related to IT use, both directly and indirectly through psychological distancing. Anxiety is also indirectly positively related to IT use through seeking social support, which countered its original negative effect on IT use. The behaviors of seeking social support and psychological distancing are both part of a general disturbance handling strategy that helps to restore emotional stability and minimize the perceived threat (Beaudry & Pinsonneault, 2005).

Beaudry and Pinsonneault's coping model of user adaptation (CMUA) postulates four adaptation strategies associated with the four different classes of emotions in the context of IT implementation: 1) benefits maximizing (e.g., taking full advantage of the opportunities offered by an IT to maximize personal benefits) in response to challenge emotions, 2) benefits satisficing (e.g., being satisfied with the limited benefits an IT offers), in response to achievement emotions, 3) disturbance handling (e.g., restoration of personal emotional stability and minimization of the perceived negative consequences associated with an IT) in response to deterrence emotions, and 4) self-preservation (e.g., restoration of emotional stability, with little or no impact on individuals' performance at work using an IT) in response to loss emotions (Beaudry & Pinsonneault, 2005; Beaudry & Pinsonneault, 2010).

Building on Beaudry and Pinsonneault's CMUA (2005), Bala and Venkatesh (2016) posit four different technology adaptation behaviors based on whether users appraise a new IT as an opportunity or a threat to goal achievement and whether they have perceptions of control over the new IT: exploration-to-innovate (finding, extending, and/or changing features of an IT to accomplish tasks in novel ways) caused by appraisals of opportunity and high control characterizing the challenge emotions, exploitation (utilizing a recommended set of features of an IT to perform tasks) caused by appraisals of opportunity and low control characterizing the achievement emotions, exploration-to-revert (finding, extending, and/or changing features of an

IT to fit with pre-implementation work processes and/or habits) caused by appraisals of threat and high control characterizing the deterrence emotions, and avoidance (not using an IT when accomplishing tasks) caused by appraisals of threat and low control characterizing the loss emotions.

Regulatory Focus Theory

The regulatory focus theory (RFT) distinguishes between two major motivational orientations – promotion focus and prevention focus – that guide individuals' preferences and goal pursuit behaviors (Higgins, 1997; Higgins, 1998). The promotion focus is driven by the need nurturance concerning an ideal self (the kind of person an individual would like to be) and thus are related to attainment of positive outcomes, such as advancement, accomplishment and aspirations. In contrast, the prevention focus is driven by the need for safety concerning an ought self (the kind of person an individual ought to be) and are related to avoidance of negative outcomes and fulfillment of responsibilities, duties, and obligations. Individuals with a promotion focus are sensitive to positive outcomes. They consider gains as success and non-gain as failure and regulate their attentions, perceptions and behaviors toward maximization of gains. Individuals with a prevention focus are sensitive to negative outcomes. They regard non-loss as success and loss as failure and regulate their attentions, perceptions and behaviors toward security and minimization of losses (Higgins & Tykocinski 1992; Shah, Higgins & Friedman, 1998). These two distinct motivational orientation states can be either enduring personality characters or situationally induced by environmental cues (Forster, Higgins & Bianco, 2003; Forster, Higgins & Idson, 1998; Shah & Higgins, 1997). Irrespective of being dispositional or situationally induced, individuals' regulatory foci guide their strategic preferences, information processing, decision making, and behaviors (Dholakia, Gopinath, Bagozzi & Nataraajan, 2006; Pham & Avnet, 2004; Sengupta & Zhou, 2007; Vellido, Lisboa & Meehan, 2000).

Individuals' regulatory foci prompt them to adopt strategies and engage in activities that are consistent with their regulatory orientations. Specifically, individuals utilize an eagerness strategic means to pursue a promotion goal but adopt a vigilance strategic means to fulfill a prevention goal (Crowe & Higgins, 1997). Let us consider a signal detection situation where individuals decide whether an action is worth pursuing (Tanner & Swets, 1954; Trope & Liberman, 1996). There are four possible outcomes of each signal-detection trial: 1) a hit – deciding to take a correct action, 2) a miss – deciding not to take a correct action, 3) a correct rejection – deciding not to take a wrong action, and 4) a false alarm – deciding to take a wrong action. Since a promotion focus is concerned with the pursuit of gains and advancements, it entails the eagerness strategy to ensure hits and avoid misses (i.e., a loss of an opportunity for accomplishment). In contrast, since a prevention focus is concerned with safety and avoidance of failures, it involves the vigilance strategy to seek correct rejections and ensure against false alarms (i.e., making a mistake). In line with this reasoning, RFT suggests that individuals' emotional responses to success and failure may differ depending on their regulatory foci.

Due to the difference in strategic inclinations and tactical preferences when individuals are in a promotion focus versus a prevention focus, success and failure in a promotion versus prevention focus differ emotionally and motivationally. When individuals succeed in a promotion focus, their eagerness increases (experienced as high-intensity excitement). In contrast, when individuals succeed in a prevention focus, their vigilance reduces (experienced as low-intensity relief). When individuals fail in a promotion focus, their eagerness reduces (experienced as low-intensity distress). In contrast, when individuals fail in a prevention focus, their vigilance increases (experienced as high-intensity anger). Therefore, individuals' degrees of promotion and prevention foci influence the nature and intensity of their emotional reactions to success and failure (Brockner & Higgins, 2001).

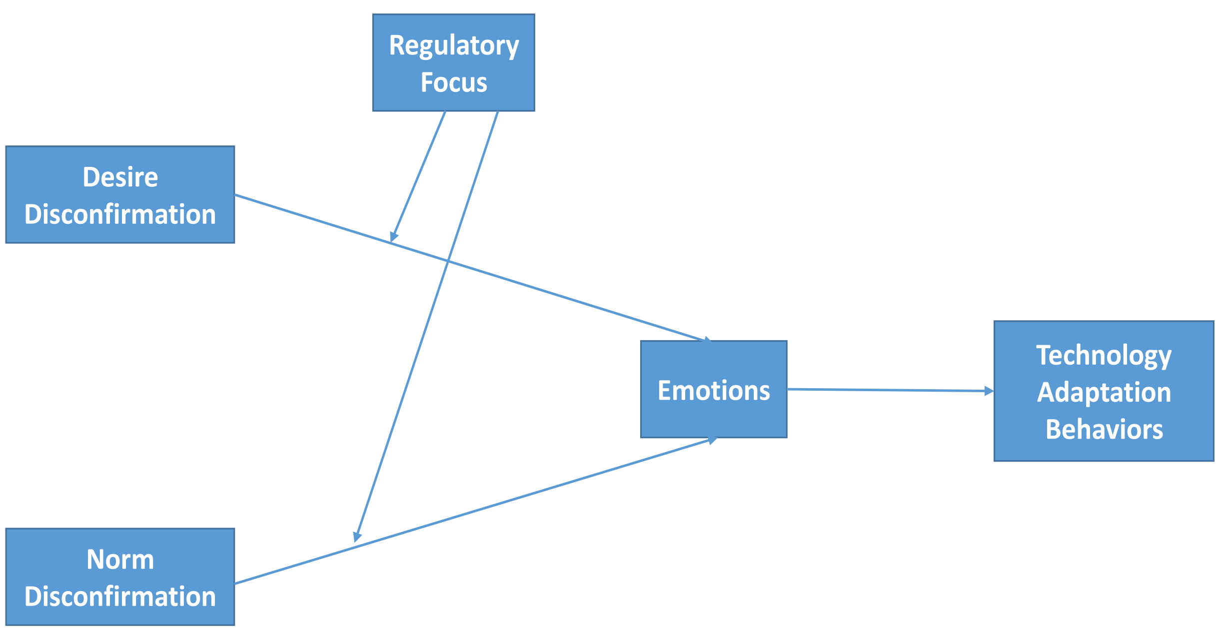
The RFT is consistent with the Self Discrepancy Theory, which posits that emotions are caused by a discrepancy between actual self-state and self-guides and that self-regulation in relation to an ideal self-guide (individuals' representations of the attributes that someone would like them ideally to possess – someone's hopes, wishes, or aspirations for them) as a desired end-state is emotionally distinct from self-regulation to an ought self-guide (individuals' representations of the attributes that someone believes they should or ought to possess – someone's beliefs about their duties, obligations, or responsibilities) as a desired end-state (Higgins & Tykocinski, 1992). More specifically, it indicates that congruency or match between actual self and ideal self-guide represents the presence of positive outcomes in a promotion focus (promotion success), resulting in the experience of cheerfulness-related emotions (e.g. excitement). In contrast, mismatch between actual self and ideal self-guide represents the absence of positive outcomes in a promotion focus (promotion failure), resulting in the experience of dejection-related emotions (e.g., distress). Furthermore, congruency between actual self and ought self-guide represents the absence of negative outcomes in a prevention focus (prevention success), resulting in the experience of quiescence-related emotions (e.g., relief). In contrast, mismatch between actual self and ought self-guide represents the presence of a negative outcome in a prevention focus (prevention failure), resulting in the experience of agitation-related emotions (e.g., anger). A large body of literature has examined the predictions made by RFT (Boldero, Moretti, Bell & Francis, 2005). The emotional significance of the two regulatory foci is no longer restricted to actual-self in relations to ideal and ought self-guides. It has extended to any case of success or failure when individuals pursue a goal with a promotion focus or a prevention focus.

Regulatory focus differences in strategic preferences have other effects as well. Prior research also suggests that regulatory foci influence individuals' locus of control. Locus of control is defined as one's belief that event outcomes are within or outside of personal control (Lefcourt, 1966; Rotter, 1966). Locus of control varies on a bipolar dimension from internal to external control. Internal control refers to the belief that control of outcomes resides primarily in oneself (Vijayashree & Jagdischchandra, 2011). Individuals with an internal locus of control view outcomes of events as resulting from their own actions (Marsh & Weary, 1995). In contrast, external control refers to the belief that control is outside of oneself, either in the hands of powerful other people or due to fate or chance (Vijayashree & Jagdischchandra, 2011). People with an external locus of control view outcomes of events as being under the control of external factors such as chance (Marsh & Weary, 1995). For example, when failing to meet a desired goal, an individual with an internal locus of control will attribute the failure to poor personal preparation, whereas, one with an external locus of control will attribute failure to other people or circumstances beyond the individual's control. Since individuals with a promotion focus adopt eagerness strategies for the fulfilment of internal desires, aspirations, and ideals, they tend to be internally focused (Bless, Mackie & Schwarz, 1992; Bless, Schwarz, Clore, Golisano, Rabe & Wölk, 1996). The salience of internal attributes will lead promotion-focused individuals to rely more on stable internal dispositions when making attribution judgments. Therefore, promotion-focused individuals are likely to have an internal locus of control. In contrast, individuals with a prevention focus are concerned with protection and vigilance against losses for the fulfillment of external norms, duties and obligations. Thus, they are likely to be externally focused (Bless et al., 1992; Bless et al., 1996). The salience of external factors will lead prevention-focused individuals to make attribution to external circumstances. Consequently, prevention-focused individuals are likely to have an external locus of control.

RESEARCH MODEL AND HYPOTHESES

Drawing on the CAT, functional view of emotions, research on emotions in the IS field, and the RFT, this paper proposes a research model of factors influencing IT adaptation behaviors along the regulatory focus perspective (Figure 1). This model focuses on individuals' evaluation of IT performance against certain standard of performance (i.e., disconfirmation judgments about IT performance), their regulatory foci, as well as their emotional responses to IT in the context of new IT implementation. According to the RFT, prevention focus (avoidance orientation) is associated with pursuing minimal goals (e.g., obligations and norms) and external locus of control, whereas promotion focus (approach orientation) is associated with pursuing maximal goals (e.g., desires and aspirations) and internal locus of control (Bless et al., 1992; Bless et al., 1996; Forster et al., 1998). Since succeeding or failing to achieve goals in a promotion focus versus a prevention focus are emotionally and motivationally distinct, it is reasonable to argue that regulatory foci are significant antecedents influencing their cognitive evaluations of and emotional responses to their IT usage experiences, which consequently determine their technology adaptation behaviors.

Figure 1. Research Model of Factors Influencing IT Adaptation Behaviors



The CAT suggests that the appraisal dimensions of outcome desirability and agency combine to explain the highest amount of variance in emotions. These two dimensions coincide with the primary appraisal – appraisal of opportunity/threat to the achievement of personal goals based on the expected outcomes of new IT implementation, and secondary appraisal – appraisal of high/low control over the features and functionalities of new IT in IS research (Beaudry & Pinsonneault, 2010). Beaudry and Pinsonneault (2010) use these two appraisal dimensions to classify emotion into four classes – challenge emotions, achievement emotions, deterrence emotions, and loss emotions. In the context of IT implementation, the appraisal of outcome desirability encompasses the overall evaluation of how positive or negative (desirable/undesirable) the performance of new IT is relative to a personal benchmark, driven by certain goals. And the appraisal of agency comprise both the agent (e.g., an IT user) and his/her perceived control over the new IT's features and functionalities.

Since the appraisal of outcome desirability involves the evaluation of goal achievement, a key factor driving an individual's emotional response to a new IT is likely to be the goal standard that is used to evaluate the outcome of using the new IT. The IT user spontaneously recruits his/her personal goal of IT usage and compares the outcome of IT usage to the goal, thus the assessment of IT performance relative to that goal will drive his/her emotions. The self-discrepancy theory distinguishes between two fundamental goal classifications that dominate human behaviors: ideals, referred to as maximal goals, and oughts, referred to as minimal goals (Forster et al., 1998; Higgins, 1987). According to the RFT, promotion-focused individuals are oriented toward the fulfillment of ideals and pursuit of maximal goals (such as desires and aspirations), whereas prevention-focused individuals are oriented toward the avoidance of mistakes and fulfillment of minimal goals (such as norms and obligations) (Forster et al., 1998). In the context of new IT implementation, promotion-focused users are likely to recruit their desires about IT performance as the goal standard, whereas prevention-focused users tend to adopt their norms about IT performance as the goal standard. Desires refer to individuals' inner emotional needs and wants reflecting the performance that they desire or want the new IT to provide, while norms are the standards that reflect the performance individuals believe the new IT should provide. Whether in a promotion focus or in a prevention focus, individuals compare their perceived IT performance against their goal standard of performance (desires in a promotion focus or norms in a prevention focus), resulting in a disconfirmation/discrepancy judgment (Jiang, Klein & Saunders, 2012; Niedrich, Kiryanova & Black, 2005), which in turn evokes emotions. The disconfirmation judgment can be positive or negative. Positive disconfirmation will result when perceived IT performance is better than the goal standard; and negative disconfirmation will occur if perceived IT performance is worse than goal standard (Cadotte, Woodruff & Jenkins, 1987). Due to the distinct emotional consequences of goal pursuits in different regulatory foci, positive/negative disconfirmation of desires about IT performance in a promotion focus is emotionally different from positive/negative disconfirmation of norms about IT performance in a prevention focus.

IT users' regulatory foci may also influence their appraisal of agency when using a new IT. Promotion focus predisposes individuals to internal locus of control, leading them to attribute IT usage outcomes to selves and perceive high control over IT's functionalities, whereas prevention focus predisposes individuals to external locus of control, resulting in attribution of IT usage outcomes to external factors (e.g., other people and external circumstances) and perception of low control over IT's functionalities. Due to their significant implications for the appraisals of IT usage outcome desirability (primary appraisal) and agency (secondary appraisal), IT users' regulatory foci and disconfirmation judgements about IT performance interact to elicit discrete emotional responses to IT implementation. In a promotion focus, the users' positive or negative disconfirmation of desires about performance of a new IT will elicit challenge or deterrence emotional responses, whereas in a prevention focus, the users' positive or negative disconfirmation of norms about performance of a new IT will evoke achievement or loss emotional responses. Therefore, the following hypotheses can be proposed:

> Hypothesis 1: Positive disconfirmation of desires about IT performance will be positively associated with challenge emotions in promotion-focused users.

> Hypothesis 2: Negative disconfirmation of desires about IT performance will be positively associated with deterrence emotions in promotion-focused users.

> Hypothesis 3: Positive disconfirmation of norms about IT performance will be positively associated with achievement emotions in prevention-focused users.

> Hypothesis 4: Negative disconfirmation of norms about IT performance will be positively associated with loss emotions in prevention-focused users.

According to the functional views of emotions, individuals' emotional responses toward a new IT are likely to influence their adaptation strategies to cope with the new IT. Prior IS research provides understanding of the links between discrete emotions and IT adaptation behaviors (Bala & Venkatesh, 2016; Beaudry & Pinsonneault, 2005, Beaudry & Pinsonneault, 2010). Bala and Venkatesh (2016) identify four distinct technology adaptation behaviors based on a combination of primary appraisal and secondary appraisal: 1) exploration-to-innovate, defined as users' behaviors of trying to find, extend, and/or change features of an IT to accomplish their tasks in novel ways, 2) exploitation, referred to as using a recommended set of features of an IT to perform tasks, 3) exploration-to-revert, defined as users' actions of trying to find, extend, and/or change features of an IT to fit with their preimplementation work processes and/or habits, and 4) avoidance, referred to as trying not to use an IT when accomplishing tasks. The manner in which an emotion informs behavior is a function of the appraisal information that elicits the emotion (Salerno, Laran & Janiszewski, 2015). Therefore, emotions serve to mediate the relationships between cognitive appraisals and subsequent behaviors. Bala and Vehkatesh found that the appraisals of opportunity and high control characterizing challenge emotions positively influence exploration-to-innovate, the appraisals of opportunity and low control characterizing achievement emotions positively influence exploitation, the appraisals of threat and high control characterizing deterrence emotions positively influence exploration-to-revert, and the appraisal of threat and low control characterizing loss emotions positively influence avoidance. In line with Bala and Venkatesh's (2016) findings, users' discrete emotional responses to a new IT elicited by the primary and secondary appraisals will in turn lead to distinct technology adaptation behaviors, as stated in the following hypotheses.

> Hypothesis 5: Challenge emotions will be positively associated with exploration-to-innovate.

Hypothesis 6: Achievement emotions will be positively associated with exploitation.

Hypothesis 7: Deterrence emotions will be positively associated with exploration-to-revert.

Hypothesis 8: Loss emotions will be positively associated with avoidance.

RESEARCH DESIGN

Sample and Data Collection

To test the proposed research model and its associated hypotheses, a web-based survey will be conducted in the context of a video platform implementation for teaching and learning at a southeast university in the USA. To solicit participation, an email invitation will be sent to all faculty and students at the university. Interested participants may click on the link in the email invitation to be directed to the survey website. A screening question will be included at the beginning of the survey to determine whether the respondent has used the newly implemented video platform for teaching or learning. The survey website will be designed in such a way that only those who have used the new video platform will be able to proceed with the survey. To encourage participation, prizes (Amazon.com Gift Cards) will be provided by means of a lucky draw. Respondents will be asked to respond to all survey questions related to their regulatory foci, disconfirmation judgements about the software's performance, emotional responses to the software, technology adaptation behaviors, and etc.

Since data will be collected from a sample of university faculty members and students, the results of the proposed study may not be applicable to other populations. However, both university faculty members and students are technology users, and the proposed study is designed to study their goal states and emotional responses that are considered primitive and instinctive for all human beings, the use of faculty and student samples hould not present a serious threat to the validity of this study.

Measures

The survey instrument will be developed by incorporating and adapting existing valid and reliable scales where appropriate. The promotion focus and prevention focus will be measured using Lockwood, Jordan and Kunda's (2002) measurement scales. The measurement of desire disconfirmation involves a comparison of perceived performance of the new IT tool with originally desired performance comprised of four dimensions – ease of use, usefulness, functionality, and reliability (Lankton & McKnight, 2011), using a 7-point Likert scale ranging from "much worse than I wanted" (1) to "much better than I wanted" (7). A different label will be used to measure norm disconfirmation using a scale ranging from "much worse than it should be" (1) to "much better than it should be" (7). In order to examine the antecedents and impacts of Beaudry and Pinsonneault's four classes of emotions (2010), the study will focus on one emotion per class from their framework: excitement (challenge emotion), relief (achievement emotion), distress (deterrence emotion), and anger (loss emotion). Lazarus and Folkman's (1984) measurement scale of emotion intensity will be used to measure each of the above-mentioned emotions. The measurement scales of four technology adaptation behaviors – exploration-to-innovate, exploration-to-revert, exploitation, and avoidance will be adopted from the work of Bala and

Venkatesh (2016). Additionally, the participants' age and prior experience with the video platform of interest will be measured as control variables.

CONCLUSIONS

This study proposes a research model of factors influencing IT users' emotions and technology adaptation behaviors by incorporating the effects of individual differences. Drawing on the RFT and CAT, the research model suggests that IT users' regulatory focus as well as the interaction between users' regulatory foci and their evaluations of IT usage outcomes have important implications for their emotions and technology adaptation behaviors. It contributes to the understanding of how users' disconfirmation judgements about IT performance interact with their goal states to influence their emotions and technology adaptation behaviors. Previous IS research on emotions has primarily examined how cognitive appraisals can elicit emotions and affect adaptation behaviors (Bala & Venkatesh, 2016; Beaudry & Pinsonneault, 2005, Beaudry & Pinsonneault, 2010). However, there is a lack of research examining how IT users' goal pursuits inform their emotions and behaviors. In this respect, the RFT is an appropriate framework for studying this issue because it emphasizes the distinct emotional nature of success and failure in goal pursuit depending on the regulatory focus (Brockner & Higgins, 2001). This is the first attempt to investigate the antecedents of emotional responses to IT implementation from a motivational perspective. It further expands beyond the traditional technology usage research in explaining IT users' emotions and technology adaptation behaviors. This paper also provides guidance for managers to better predict and influence employees' technology adaptation behaviors.

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TUSKEGEE AT FORTY-FIVE AND U.S. MEDICINE'S 107 YEARS OF ARTIFICIAL SCARCITY AND ECONOMIC EXCLUSION

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ABSTRACT

November 16, 2017 will mark the forty-fifth anniversary of the end of the Tuskegee syphilis experiment. In 1932, the U.S. Public Health Service (PHS) began what eventually became one of the most controversial studies in the history of medicine. The *Tuskegee Study of Untreated Syphilis in the Negro Male* (hereafter, "Tuskegee," for short) lasted for forty years (1932-1972) and involved inviting 600 indigent African-American sharecropper men (about two-thirds of whom had contracted syphilis) from Macon County, Alabama to participate in a study in return for receiving promised medical treatment for "bad blood" (symptoms associated with conditions/diseases ranging from lethargy and anemia to syphilis), free food, and burial. According to the conventional historical narrative, the 600 men were deliberately not treated for syphilis. A renewed counter-narrative, since at least 1999, disputes many of the putative facts of the popular narrative. This paper will first explore artificial scarcity and economic exclusion in the industrial organization of American medicine leading up to and after Tuskegee. It will then examine the twin narratives. Third, it will review studies documenting demographic health disparities and their changes during and after Tuskegee. Finally, utilizing a sample of recent data, it will discuss an empirical test by the authors suggesting that alarming demographic health disparities still exist in the American population, and very tragically echo the pattern that led to the development and implementation of Tuskegee.

Keywords: health economics, economic history, industrial organization, regulation, market structure

INTRODUCTION

Many Americans, and increasingly most young ones, have heard, have been taught, or have read something about the notorious Tuskegee syphilis study. Today, two versions of the event exist side by side. The first is a story of flagrant and deliberate medical malpractice, the second a story of well-intentioned and paternalistic care that has been misunderstood and unfairly maligned. Whichever version eventually wins out as the dominant narrative of the event, time will tell. This year marks the forty-fifth anniversary of the end of the Tuskegee study. To provide insight into the etiology of Tuskegee, this paper will first review the literature analyzing the industrial organization of American medicine leading up to and after the study. Second, the dominant narrative and counter-narrative of Tuskegee will be juxtaposed. Third, demographic health disparities will be reviewed and a relevant empirical study conducted. Last of all, conclusions about all of the aforementioned will be offered.

LITERATURE REVIEW

The Economics of Exclusion: Rise of the U.S. Medical Cartel (1830-1982)

Free-Market Period (1830-1910). Contrary to popular presumption, free-market medicine did not begin in the United States in 1776 with the American Revolution but much later in the early Nineteenth Century. From approximately 1830 to 1850, licensing laws and regulations enacted during the colonial period were generally ignored or repealed. This correlated with an increased acceptance of eclecticism (1813) and homeopathy (1825) against the mainstream medicine (allopathy) of the day that included bloodletting and high-dose injections of metal and metalloid compounds containing mercury or antimony (Hamowy, 1979, pp. 73-74).

Eclectics emphasized treatments consisting of plant remedies, bed rest, and hot baths while homeopaths emphasized a different set of medicines in small doses (letting the body heal itself as much as possible), improved diet and hygiene, and stress reduction. The usual worst results of these types of treatments were allergic reactions to no improvement. Hence, it is not surprising that the American public began to prefer them to the ghastly bleeding and metal injections of allopathy, which could be deadly (Rockwell, 1994, p. 17).

In terms of the physician labor market, by 1860 there were approximately 55,000 physicians practicing in the United States, one of the highest *per capita* numbers of doctors in the world; about 175 per 100,000 (Hamowy, 1979, p. 73). By 1870, approximately 62,000 physicians were in practice in the United States, roughly about 5,300 of which were homeopaths and about 2,700 of which were eclectics; thus about 13 percent of the labor market represented alternative physicians (Chaillé, 1874, pp. 818-819). Schooling was plentiful, inexpensive, and entry to the most prestigious schools was not very difficult. Most schools were privately owned. Licenses to practice were not required or enforced, and just about anyone could establish a medical practice (Hamowy, 1979, p. 73).

Even though they were only about 13 percent of physicians in practice, the free entry of eclectics and homeopaths into the U.S.-physician labor market had a negative impact on the incomes of allopaths. Midwives and pharmacists were also seen as a problem because midwives took business away from obstetricians and pharmacists (at the time) could diagnose diseases and write drug prescriptions and refills (Rockwell, 1994, p. 17).

Allopaths thus began organizing at the state level to lobby governments to not only severely restrict their eclectic, homeopathic, midwife, and pharmacist competitors and the schools that trained them, but also severely restrict the number of allopaths in practice to dramatically increase allopathic (mainstream) physician incomes and prestige (Rockwell, 1994, p. 18).

The American Medical Association (AMA) spearheaded the effort to make organized allopathy the gatekeeper of American medicine. AMA had been formed in 1847 by Nathan Smith Davis. Davis had been working at the Medical Society of New York with issues of licensing and education. Around the time of AMA's formation, restricting entry into the profession was usually advocated with the explicit goal of maintaining or raising physician incomes (Rockwell, 1994, p. 17). After AMA's formation, however, the self-serving rationale of income maintenance was strategically changed to that of "patient safety." However, economic exclusion was the brutal reality: in 1870, Davis worked successfully to prohibit female and black physicians from becoming members of the AMA (Link, 1992, p. 81).

After excluding females and blacks from membership, AMA formed its Council on Medical Education (CME) in 1904 as a tool through which it hoped to greatly restrict access to medical education, and thus the practice of medicine. The big problem, though, was that AMA's conflict of interest was too obvious. This is where Abraham Flexner and the Carnegie Foundation entered the picture. Carnegie had direct and indirect ties to allopathic big-business interests such as drug and medical-device companies, so it saw AMA's agenda as symbiotic with its own. AMA, in turn, obtained an objective-appearing front in Carnegie (Rockwell, 1994, p. 19).

Not only was Abraham Flexner not even an allopathic physician, he was not a recognized authority on education, never mind medical education, as he had never seen the inside of a medical school before joining Carnegie. Flexner's "report" of 1910 was found to be nothing more than a repackaging of AMA's unpublished 1906 report on U.S. medical schools. Finally, Flexner spent time at AMA's Chicago headquarters preparing what small portion of the final report was his actual work (Goodman & Musgrave, 1992, pp. 143-144).

Regardless of the aforementioned flagrant conflict of interest, state medical boards and legislatures used the Flexner Report as a basis for closing a majority of U.S. medical schools. Before Flexner, there was a high of 166 medical schools (Rockwell, 1994, p. 19). By the 1940s, there were only 77, a 54-percent reduction (Goodman & Musgrave, 1992, p. 145). Most rural schools were closed and only two African-American schools were allowed to remain open (Beck, 2004, p. 2140). This left poor rural and urban areas dramatically underserved by physicians.

By 1963, despite advances in technology and a large growth in demand for medical services, one effect of the Report was to keep the number of doctors per 100,000 people in the United States, 146, around the same level it was at in 1910 at the time of its writing (Goodman & Musgrave, 1992, p. 145). In terms of the economics of exclusion, of the approximately 375,000 physicians in practice in 1977, only about 6,300 or 1.7% were African-American (Goodman & Musgrave 1992, p. 147). The number of black physicians in practice would almost certainly have been much higher had a free market in physician labor been allowed to continue.

Not just blacks and women were affected, but by World War II, midwives had been completely banned from operating in several states, pharmacists almost everywhere were prevented from writing prescriptions and refills, and charity care had been tightly restricted (Rockwell, 1994, pp. 17, 19, 20).

With labor-market restriction and the attempt to construct the aura of a secular scientific priesthood, physician incomes and prestige dramatically increased. Wolinsky and Brune (1994) report that physicians were firmly in the lower middle class at the time of AMA's founding and made about a nominal $600 per year (p. 45). This rose to about a nominal $1,000 around 1900 (p. 45). After Flexner, incomes began to skyrocket such that a 1928 study by the AMA reported that average annual incomes had reached a whopping (for the time) $6,354 (roughly $90,500 in 2016 dollars)(p. 45). Even during the Great Depression, physicians earned four times the income that average workers did (Wolinsky & Brune, 1994, pp. 45-46).

In terms of recent numbers, a 2016 survey put pediatric physicians (on the low end of the physician-income range) at $204,000 and orthopedists (at the high end) at $443,000 (Peckham, 2016, para. 1). A 2016 Merritt Hawkins Report (p. 8) found that the average salaries of the top recruited physician specialties were family medicine ($225,000), internal medicine ($237,000), hospitalists ($249,000), and psychiatry ($250,000). These figures are mind boggling to most Americans, even in good economic times. In addition, the cyclical unemployment (Mankiw, 2015, p. 301) that displaces workers from employment in almost all other industries with the arrival of recessions or depressions, became nonexistent among physicians after Flexner.

Hospitals. Of course it would not make sense to restrict the supply of physician services without restricting the supply of hospitals as well. For-profit hospitals were the first to be restricted and in counties where they were not outright prohibited, they faced a number of regulatory burdens that nonprofits escaped, such as income and property taxes. Nonprofit institutions received generous government subsidies, tax-deductible contributions, and local planning agencies working in their favor to keep for-profit competitors from expanding (Goodman & Musgrave, 1992, pp. 156-157). At the time of Flexner, almost 60 percent of all U.S. hospitals were for-profit institutions. By 1968, only 11 percent of U.S. hospitals were for-profit institutions with about an 8-percent market share of hospital admissions (Goodman & Musgrave, 1992, p. 156).

Eliminating most for-profit medical schools and hospitals made sense for AMA since for-profit institutions are controlled by owners or stockholders who seek to control costs to maximize profits. Nonprofits are free to pursue political goals, and this was much more compatible with organized mainstream medicine's agenda, especially AMA's goal of a more lengthy and costly education than necessary to serve as a barrier to entry to the profession (Goodman & Musgrave, 1992, pp. 157-158). Nobel Prize-winning economist Kenneth Arrow (1963, p. 952) marveled at how costly medical education is compared to every other discipline.

The Rise of Health "Insurance." In the early 1900s, prepaid health policies were created for timber, mining, and rail workers in Oregon and Washington to help offset the inherent risks of employment in those industries. Within the private, free-market, for-profit insurance market of the time, claims were closely monitored by adjusters. Fees, procedures, and atypically long hospital stays were monitored and subject to challenge. A group of physicians in Oregon which resented this type of scrutiny invented a plan where procedures were reimbursed and fees paid with few questions asked. Plans with similar structures began dominating the market in other locations because of government-provided advantages gained through lobbying by organized medical interests (Goodman & Musgrave, 1992, p. 159).

By 1939, these new loose-cost containment plans began to be marketed under the Blue Shield name. That same year, Blue Cross, begun in 1929 as a hospital plan for school teachers, was endorsed by the American Hospital Association. After this, organized mainstream medicine waged an intense war on non-Blue plans. The Blues lobbied for and gained advantages not available to non-Blues plans: in many states they paid no or low premium taxes and sometimes no real-estate taxes. They also were not always required to maintain minimum benefit-to-premium ratios and could have no or low required reserves (Goodman & Musgrave, 1992, p. 160).

With these advantages, the Blues steadily came to dominate the industry. By 1950, Blue Cross held 49 percent of the hospital insurance market, while Blue Shield held 52 percent of the market for standard medical insurance (Goodman & Musgrave, 1992, p. 160). Blue Cross and Blue Shield merged in 1982 and today cover one of every three Americans (BlueCross BlueShield 2017).

Blues-structured "insurance" is anything but true insurance. Goodman (1993, pp. 684-685) notes four principal deviations from economically sound and viable insurance structures. First, hospitals are paid on a cost-plus system. Insurers reimburse hospitals not a sum of prices charged to patients for services but artificial "costs" that bear no necessary relationship to the prices of services performed. For example, tablets of Tylenol known to sell for 19 cents each at a local drugstore have been billed to insurance at $100.00 each.

The second perverse trait is insurance of routine services. An example is flu shots, an elective good which could easily be paid for out of pocket by anyone, thereby driving its price down, yet many insurance plans cover them anyway, which drives their price up for everyone. Low-risk patients get the shot not because they face serious risks from the flu or because the shot is effective (in some seasons it is only about 30% effective) but because the shot is covered and policyholders want to get their money's worth from their expensive insurance policy. The upshot is that insurance of routine services converted insurance to prepaid consumption that encourages over-purchase of services and many unnecessary procedures and testing.

Third, insurance premiums became based on "community rating." "Community" means that every person in a geographic area regardless of age, habits, occupation, race, or sex is charged the same premium. For example, the average 60-year-old incurs four times the medical expense of the average 25-year-old, but under community rating both pay the same premium, i.e., young people are overcharged and the elderly undercharged (Goodman, 1993, p. 684).

Fourth, the Blues follow a "pay-as-you-go" reimbursement system. Unlike the genuine catastrophic hospital insurance it replaced which placed premiums in growing reserves to pay claims now and in the future, the new Blues "insurance" collected premiums that only covered expected costs for the current year. If a large group of policyholders becomes ill over several years, premiums for all policyholders have to be continually raised over those years to cover the increase in costs.

Background to Tuskegee

The preceding history provides the economic context of Tuskegee. Various and sundry demographic and vocational groups of people were pushed out of or marginalized to the edges of mainstream American medicine: women, eclectics, homeopaths, midwives, and pharmacists were the main groups. Economically disadvantaged Africans Americans not only saw their physicians marginalized and most of their medical schools closed, but faced unaffordable health-insurance and health-care costs. Thus in the poor and rural South, it should hardly have been a surprise that a health study promising free medical treatment, free meals, and free burial would be attractive to its intended target audience of poor black men.

THE TUSKEGEE STUDY

The Tuskegee study was a joint venture between the U.S. Public Health Service (PHS) and Tuskegee Institute (today named Tuskegee University), an historically African-American institution of higher learning in the town of Tuskegee in Macon County, Alabama which first opened on 4 July 1881 as the Tuskegee Normal School for Colored Teachers.

Beginning in 1932, PHS and the Institute enrolled 600 indigent black-male sharecroppers in the study who were residents of Macon County. Of the 600 subjects, 399 were found to be infected with syphilis while 201 were not. The subjects enrolled because they were told that they would not only receive free treatment for "bad blood" (an umbrella term that included the symptoms of anemia and lethargy as well as syphilis), but free treatment for other minor illnesses, free transportation to treatment facilities, free hot meals on treatment days, and free burial if they agreed to an autopsy after their deaths.

The controversy surrounds the arrival of penicillin in 1947 as a proven cure for syphilis. However, the Tuskegee researchers, who could have modified the study to treat all of the infected with penicillin and end the study or form a subgroup among the infected subjects to test penicillin, did neither. The researchers not only ignored penicillin, they allegedly kept their subjects in the dark about it and prevented them from being treated with it in other public-health programs in Macon County.

The first known objection to Tuskegee came from Irwin Schatz, M.D. In 1965, Schatz read about the study in a medical journal and immediately wrote one of its authors to criticize the ethics of the study. Schatz received no response (Kaplan, 2015, para. 6). The following year, Peter Buxtun, a PHS employee in San Francisco, sent a letter to the U.S. Communicable Disease Center (CDC), a predecessor of today's U.S. Centers for Disease Control and Prevention (CDC), objecting to the continuation of Tuskegee (Isenberg, 1990, para. 7).

In 1972, Buxtun decided to approach the media. On 25 July 1972, the story broke in the *Washington Star* and the next day appeared in the *New York Times*. Congressional hearings followed. CDC agreed to appoint a panel to investigate the study. The panel advised termination of the study and the study ended on 16 November 1972.

By the study's end, of the 399 original infected subjects, about 28 died of the disease and about 100 died of its complications. About 40 wives had been infected and about 19 children were born with the disease.

Two years after the termination of Tuskegee, the U.S. Congress passed the National Research Act of 1974 and created a committee to research and propose regulations for studies that utilized human subjects. The federal department of Health and Human Services (HHS) now includes an Office for Human Research Protections (OHRP) to monitor studies which today must obtain informed consent from subjects, report diagnoses to them, and report the results of any tests performed. Also created were institutional review boards (IRBs) at all research facilities that receive federal funding, contracts, or grants. IRBs monitor studies in hospitals and other research settings to protect the interests of human research subjects.

The extent to which Tuskegee undermined trust between the U.S. black community and U.S. public-health authorities is much debated. One side firmly believes that news of the study made many poor/older African Americans afraid to seek health care in the U.S. Medicaid and Medicare systems. Lending credence to this view are Alsan and Wanamaker whose 2016 National Bureau of Economic Research (NBER) working paper found evidence that news of the Tuskegee study created such mistrust between the U.S. black and medical communities that "life expectancy at age 45 for black men fell by up to 1.4 years in response to the disclosure, accounting for approximately 35% of the 1980 life expectancy gap between black and white men" (p. 2).

On the other hand, the Tuskegee Legacy Project Questionnaire found that although there was four times the awareness in the black community (versus the white community) of the Tuskegee study, blacks remain up to three times more likely to agree to take part in medical studies (Katz et al., 2008, p. 1137).

THE COUNTER-NARRATIVE

While there has been a counter-narrative to the dominant one on Tuskegee since its end in 1972 (Paul, 2015, p.3), a renewed counter-narrative has emerged since at least 1999 with the publication of Benedek and Erlen's "The Scientific Environment of the Tuskegee Study of Syphilis, 1920-1960" in *Perspectives in Biology and Medicine*.

To re-iterate the conventional narrative: Tuskegee was a study in which 400 to 600 willfully deceived African-American men went untreated for syphilis for 40 years so that researchers could document the long-term effects of the disease. Supporting this is the original press account of Tuskegee by reporter Jean Heller in the *New York Times* on 26 July 1972 titled: "Syphilis Victims in U.S. Study Went Untreated for 40 Years."

Treatment

The first challenge to the dominant narrative is on the issue of treatment. Tuskegee, as the study's official title stated (*Tuskegee Study of Untreated Syphilis in the Negro Male*), was intended as an examination of men with late-stage dormant syphilis who were not contagious and who had the infection for five or more years. A 1950 report from the study itself documents that of 410 infected subjects selected from 1931-32 and 1932-33, 178 were in fact given the standard treatment of the time, neoarsphenamine (Shweder, 2004, para. 11). Another study report confirmed that all subjects had latent syphilis with early cases (characterized by open sores and the greatest risk of contagion) diverted for treatment (Rivers & Schuman & Simpson & Olansky, 1953, p. 391).

Regarding the standard treatment of the time: arsenical compounds were toxic with many unpleasant side effects, they required detailed and delicate care in preparation and administration, they required a regimen consuming more than a year's time in a hospital setting, and they were of little reliable effect in terms of a cure. Thus, with such high costs and few if any benefits, it was hardly a surprise that the eventual patient non-compliance rate was in the vicinity of 80-90 percent (Shweder, 2004, para. 13).

Last but not least on the issue of treatment: most patients infected with syphilis who make it past the early stages of the disease without treatment experience no further symptoms or self-cure. In other words, from a very reasonable and ethical medical standpoint in 1932, it was anything but clear that subjecting a patient to a year-long regimen of arsenic poisoning was an obvious superior alternative to no treatment at all.

Penicillin: The Game Changer?

The second major issue is penicillin. Penicillin was not standardized, widely available, and known to cure syphilis until about 1955 to 1960--not 1947, as many if not most versions of the dominant narrative claim (Shweder, 2004, para. 41). The difference in the narratives on this point is relevant. While PHS did not inform the study subjects about penicillin and did not end the study and advocate penicillin, study subjects by 1955 had been infected for two decades or longer. Some had died from the infection, some had died from its cardiovascular effects. For the remainder of the study subjects, by 1955 their bacterial infections would have died off or been neutralized. For those who had latent syphilis for another 17 years until the termination of Tuskegee, penicillin would have done little if anything for their health, comfort, or life expectancy. Heart-valve damage from the bacteria, if present, would have occurred long before the arrival of penicillin and penicillin would not have repaired the damage. Only the presence of inflammation caused by the bacteria could have been cured, but even so, the study subjects still had comparable life expectancies to male residents of Macon County who were never infected (Shweder, 2004, para. 23).

Of 90 subjects from the original sample examined in 1963, 96% had received arsenic or penicillin treatment from outside sources. This implies that they were not complete puppets of the PHS, naively believing they were getting adequate care from government doctors who saw them very infrequently and on a schedule that did not correspond in any way to changes in their health status (Shweder, 2004, para. 39).

Informed Consent and Medical Ethics

Finally, nothing like the informed-consent doctrine of today existed in the doctor-patient relationship in the time of Tuskegee. Physicians adhered to a "tradition of paternalistic secrecy in the doctor/patient relationship" (Benedek & Erlen quoted in Shweder, 2004, para. 32).

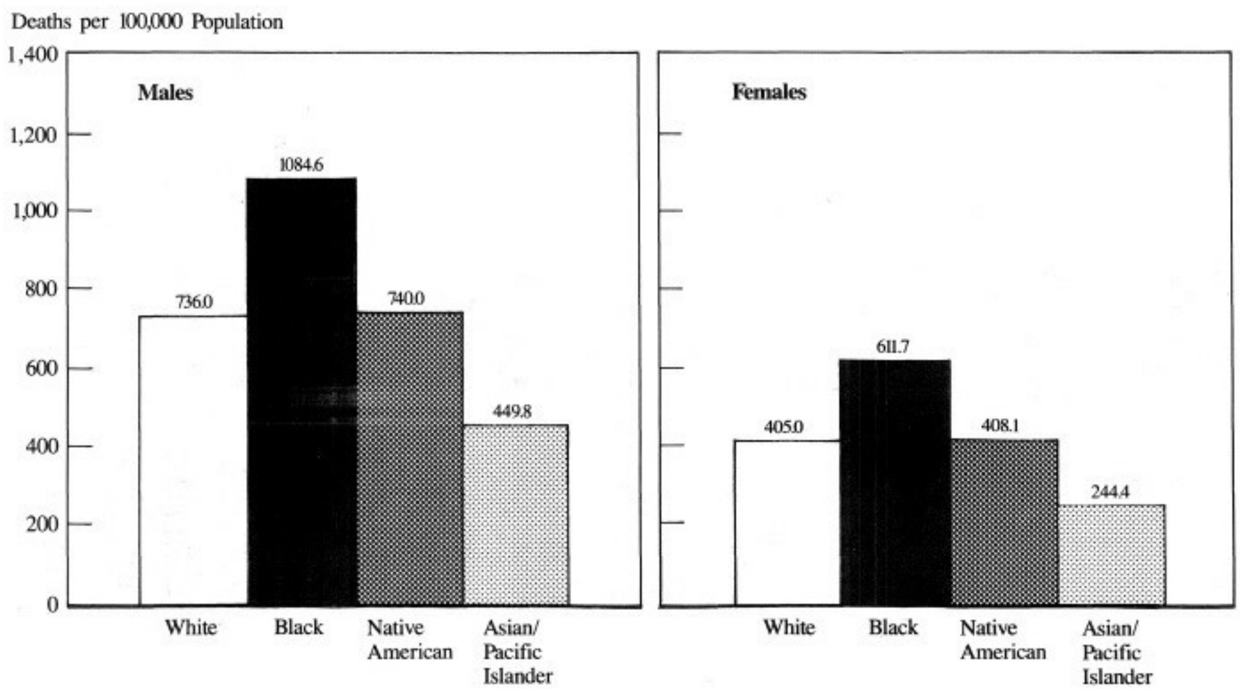
> Physicians in the 1930s often did not disclose information to their patients and frequently deceived them, not necessarily because of evil motives or because they were engaged in acts of betrayal, but (as maddening as it may seem by current American standards) because they kept their paternalistic eyes fixed on some imagined greater good. (Shweder, 2004, para. 32)

Most ironic of all, had there been an institutional review board (IRB) system in place in 1932, given the medical mores of the day, it would almost certainly have had very little to object to in the Tuskegee study and almost certainly would have approved it (Shweder, 2004, para. 45).

DEMOGRAPHIC HEALTH DISPARITIES

One of the earliest and most groundbreaking reports on demographic health disparities was released in 1985 and is known as the Heckler Report, after former U.S. Health and Human Services secretary Margaret Mary Heckler (U.S. Centers for Medicare & Medicaid Services, 2015, para. 1). In three particular areas the Heckler report provided insight, the first being annual death rates from all causes.

Average Annual Age-Adjusted Death Rates for All Causes, 1979-1981

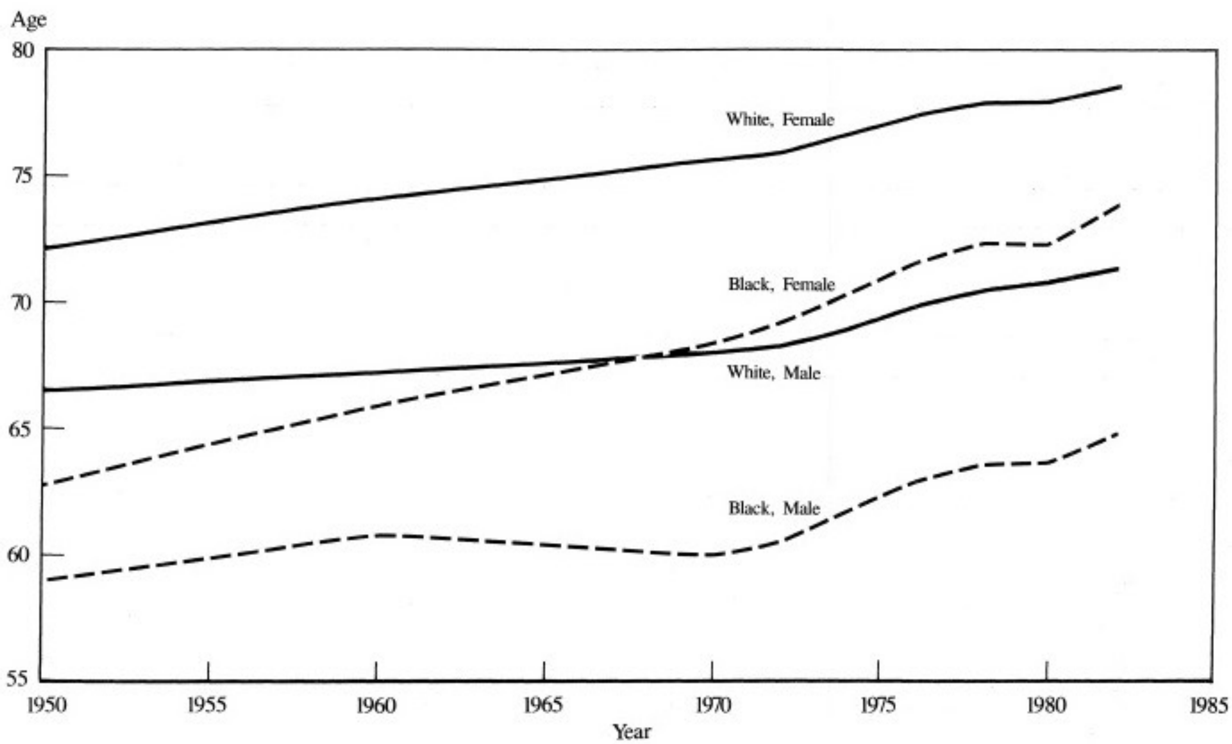


As can be seen in the left-hand bar chart above (U.S. Department of Health and Human Services, 1985, p. 65), between 1979-1981, average annual age-adjusted male deaths per 100,000 were 1,085 for African Americans, 740 for Native Americans, 736 for whites, and 450 for Asian/Pacific Islanders. In other words, while the rates for black males were unquestionably the highest, Native Americans and whites were in a statistical second-place tie while Asian/Pacific Islanders had the best outcomes of all four demographic groups. (Data on death rates for Hispanics/Latinos of either sex were not collected.)

As can be seen in the right-hand bar chart above, for females, the same pattern held except that the corresponding demographic rates were all lower. Average annual age-adjusted female deaths per 100,000 for the same time period were 612 for African Americans, 408 for Native Americans, 405 for whites, and 244 for Asian/Pacific Islanders. Again, while the rates for black females were unquestionably the highest, Native Americans and whites were in a statistical second-place tie while Asian/Pacific Islanders had the best outcomes of all four ethnic groups.

The second area that revealed some counter-intuitive and overall promising results was life expectancy (U.S. Department of Health and Human Services, 1985, p. 66).

Life Expectancy at Birth, According to Race and Sex: United States, 1950-1983



Beginning in 1950, male-female, white-black life expectancies (from highest to lowest) were: white females (72.5 years), white males (66 years), black females (63 years), and black males (59 years). By 1983, the order from highest to lowest had changed to: white females (79 years), black females (74 years), white males (72 years), and black males (65 years).

The good news for all demographic categories in this comparison is that life expectancy rose across this 33-year period, and after the early 1970s (coincidentally, around the time Tuskegee ended) it rose faster for male and female African Americans than their white counterparts.

For white females, life expectancy rose from about 72.5 years to about 79 years, an improvement of about 6.5 years. For black females it rose from about 63 years to about 74 years, an improvement of approximately 11 years. For white males it rose from about 66 years to about 72 years, an improvement of about 6 years. Finally, for black males it rose from about 59 years to about 65 years, an improvement of approximately 6 years.

From the aforementioned figures and time-series graph above, one can spot a surprising trend: the life expectancy of black females rose above that of white males around the year 1969.
The third statistic reported on was age-adjusted deaths per 100,000 by cause (U.S. Department of Health and Human Services, 1985, p. 67).

Age-Adjusted Death Rates by Selected Cause, Race, and Sex United States, 1980 (Rate per 100,000 Population)

	Black Male	White Male	Relative Risk	Black Female	White Female	Relative Risk
Total Deaths (All Causes)	1,112.8	745.3	1.5	631.1	411.1	1.5
Heart Disease	327.3	277.5	1.2	201.1	134.6	1.5
Stroke	77.5	41.9	1.9	61.7	35.2	1.8
Cancer	229.9	160.5	1.4	129.7	107.7	1.2
Infant Mortality	2,586.7	1,230.3	2.1	2,123.7	962.5	2.2
Homicide	71.9	10.9	6.6	13.7	3.2	4.3
Accidents	82.0	62.3	1.3	25.1	21.4	1.2
Cirrhosis	30.6	15.7	2.0	14.4	7.0	2.1
Diabetes	17.7	9.5	1.9	22.1	8.7	2.5

The synopsis of this table is that overall, the change-in-life-expectancy pattern displayed in the previous table was replicated with respect to age-adjusted death rates by cause. White and black females had better health outcomes than their male counterparts in total deaths, heart disease, cancer, accidents, and cirrhosis.

The only four mortality factors for which this pattern was broken (where all black rates exceeded all white rates) were stroke, infant mortality, homicide, and diabetes. Black males had a high rate of stroke (77.5) compared to black females (61.7) and white males (41.9). For infant mortality, the respective rates for black males and females (2,587; 2,124) were more than double that of the corresponding white rates (1,230; 963). As for diabetes, while the black female and male rates were relatively close to each other (female = 22.1, male = 17.7), they were definitely high compared to white rates (male = 9.5, female = 8.7).

The most stark and alarming outcome was the very high death rate from homicide for African-American males. It was 71.9 compared to the rates for black females (13.7), white males (10.9), and white females (3.2). Even so, death rates by cause remained consistent with improved life-expectancy patterns since the early 1980s. While for heart disease, cancer, accidents, and cirrhosis, black males had the highest death rates followed by white males, black females, and white females, for all four categories, life expectancy was higher and intra-sex (if not intersex) disparities smaller. Focusing on mortality rates, McCord and Freeman (1990) found that despite positive trends for both whites and minorities, mortality rates remained high in predominantly black and Latino inner-city areas. The focus of their study was Harlem in New York City where they found that the age-adjusted mortality rate (considering all causes) was not only the highest in the city but more than 100 percent higher than the rate for whites across the U.S. and 50 percent higher than the rate for blacks across the U.S. Cardiovascular disease, cirrhosis of the liver, homicide, and cancer were the main causal factors (1990, p. 173). McCord and Freeman concluded that black males in Harlem had less of a chance of living to the age of 65 than males in the Third-World country of Bangladesh. Their recommendation was that Harlem and other areas with high proportions of black-male residents be treated as health-disaster areas (p. 173).

Some of the findings of ethnic demographic disparities in health outcomes have been counterintuitive and run against the grain of what popular media and press accounts imply. An example is a 2004 compilation of statistics published by the National Center for Chronic Disease Prevention and Health Promotion (NCCDPHP). The following table illustrates some of these counterintuitive results (collated into one summary table) in a comparison between males and females.

Table 1.

Deaths per 100,000; age adjusted to year-2000 total U.S. population

	Males	Females
Heart disease	303.6	203.2
Stroke	58.6	56.2
All cancers	242.8	164.5
Lung cancer	74.9	41
Colorectal cancer	24.1	17.1
Breast cancer (women only)		26.0
Diabetes	28.0	23.0

Source: National Center for Chronic Disease Prevention and Health Promotion (NCCDPHP), 2004, pp. 8, 12, 16, 20, 24, 27, 30.

For deaths per 100,000 adjusted to the year-2000 total population, women overall had much lower mortality rates than men. The only areas that were an exception were diabetes [women (23) vs. men (28)], stroke [women (56.2) vs. men (58.6), which was almost a statistical tie], and of course breast cancer since male breast cancer is so rare that statistics on it were not collected.
In terms of ethnic demographic disparities, NCCDPHP reported the following statistics which were collated into one summary table:

Table 2.

Deaths per 100,000 age adjusted to year-2000 total U.S. population

	Black	White	Hispanic	Native Am/Alaskan	Asian/Pacific Islander
Heart disease	321.3	245.6	188.4	178.9	137.4
Stroke	80.0	55.9	44.0	46.1	51.2
All cancers	247.4	197.6	131.0	147.8	119.6
Lung cancer	63.6	57.7	23.6	39.0	28.3

Colorectal cancer	28.0	19.9	13.9	13.6	13.2
Breast cancer (women only)	35.2	26.0	16.2	13.5	12.9
Diabetes	49.9	22.1	36.3	45.3	16.9
Source: National Center for Chronic Disease Prevention and Health Promotion (NCCDPHP), 2004, pp. 9, 13, 17, 21, 25, 27, 31.					

The synopsis for these statistics is: for heart disease, stroke, all cancers, lung cancer, colorectal cancer, and breast cancer, blacks and whites had the first and second-highest respective age-adjusted death rates per 100,000. Interestingly, Hispanic, Native American/Alaskan, and Asian/Pacific Islander minorities all had lower mortality rates than either blacks or whites. The only exception to this mortality ranking again, was with respect to diabetes. The diabetes ranking (from the highest rates to lowest) was black, Native American/Alaskan, Hispanic, white, and Asian/Pacific Islanders.

The surprise was the rates of Native American/Alaskans and Hispanics being between those of blacks and whites. The superior ranking of Asian/Pacific islanders was not a surprise since they had performed well in past rankings. The other interesting finding, because it goes against the grain of what is insinuated so often in popular culture, is that the white majority did not achieve the best results in any category.

Perhaps even more counter-intuitive were findings by David Williams and Pamela Jackson in 2005. Examining National Center for Health Statistics (NCHS) data for the half century 1950-2000, Williams and Jackson found that while the disparities between rates for heart disease between blacks and whites in 1950 were very low, fifty years later in 2000 African-American rates were about 30-percent higher than those of whites (p. 326). A similar pattern was found with respect to cancer: in 1950, cancer rates were actually lower for blacks than whites. Yet again, fifty years later in 2000, the rate for blacks rose to a level that was 30-percent higher than that for whites (p. 326).

These are ironic trends given the dramatic social gains for blacks that occurred from 1950-2000 such as *Brown vs. Board* (1954), the Civil Rights Act (1964), and the Selma marches (1965). Thus low incomes, poverty, and racism as all-encompassing factors are thought by some researchers to have their explanatory limits. Even after adjusting for socio-economic status, for African Americans, excess deaths reach almost 40,000 per year. Among whites, American blacks with African ancestry, and American blacks with Caribbean ancestry, American blacks with African ancestry reported the worst health outcomes, including high blood pressure, stroke, and diabetes (Mays, Cochran, & Barnes, 2006, p. 225).

AN EMPIRICAL TEST

In the wake of Tuskegee, there have been a number of high-profile efforts to develop good faith and goodwill between the U.S. mainstream medical community and minorities in the U.S. as well as facilitate access to health care through public-health programs. One way to gauge the progress of those efforts is to observe if there has been an improvement in minority health outcomes, specifically those in the African-American community, and especially with respect to outcomes that are relevant to what the Tuskegee study was ostensibly designed to address: sexually transmitted diseases (STDs).

DATA

Data on STDs were collected by the U.S. Centers for Disease Control and Prevention in 2013 for 100 U.S. cities and towns ranging from Montgomery, Alabama to Fort Polk South, Louisiana (Rent Application, 2015). They reflect reported cases of gonorrhea, syphilis, and chlamydia and are measured per 100,000 people. (Data on the herpes simplex virus [HSV] are not recorded by the Centers for Disease Control and Prevention [CDC].) Only cities with a population of 50,000 or greater were included in the data set. Washington, D.C., was included as a city and the boroughs of New York City were each treated as separate cities (Rent Application, 2015, para. 2, 3).

Ethnic demographic components (black, white, Hispanic, and Asian), *per-capita* income, unemployment rates, and religious-intensity data for each city and town came from City Data (2016) for the year 2013.

The empirical model is:

$$STD/CAP = \beta_1 + \beta_2 BLACK + \beta_3 WHITE + \beta_4 HISPAN + \beta_5 ASIAN + \beta_6 PCINC + \beta_7 UNEMP + \beta_8 NONREL + \varepsilon_1$$

where:

STD/CAP = total reported cases of sexually transmitted diseases (gonorrhea, syphilis, and chlamydia) per 100,000 population for a city or town.

BLACK = percentage of a city or town's population that is African-American.

WHITE = percentage of a city or town's population that is white/Caucasian.

HISPAN = percentage of a city or town's population that is Hispanic/Latino.

ASIAN = percentage of a city or town's population that is Asian.

PCINC = *per-capita* income of a city or town.

UNEMP = unemployment rate of a city or town.
NONREL = percentage of individuals identified as non-religious in a city or town.

ε_1 = stochastic error term.

THEORY AND PREDICTIONS

Based on the results of the NCCDPHP report of 2004 (discussed earlier) that analyzed disparities in ethnic health outcomes, the present authors predict adverse health outcomes to be endemic in the white majority (WHITE) and black minority (BLACK). Therefore, the coefficients of those variables are expected to be both positive and statistically significant.

Per-capita income (PCINC) is expected to be negatively related to the dependent variable. Income is positively correlated to education, superior health status, and superior health outcomes. Therefore, the higher an individual's income, the fewer the adverse health outcomes he or she will experience, including STDs. The coefficient of *per-capita* income (PCINC) is therefore expected to be negative and statistically significant.

City unemployment rates are expected to be positively related to the dependent variable. Unemployment is positively correlated with adverse health outcomes. Therefore, the higher the unemployment rate, the greater the number of adverse health outcomes, including STDs. The coefficient of unemployment (UNEMP) is therefore expected to be positive and statistically significant.

Religious belief is expected to be negatively related to the dependent variable. Religious belief is assumed to be positively correlated with sexual restraint. Therefore, the greater the religious belief found in a city or town, the fewer the number of reported cases of STDs. The coefficient of the percentage of people in a city or town identifying as non-religious (NONREL) is therefore expected to be positive and statistically significant.

TABLE 3 below displays the results of an ordinary least squares (OLS) regression on the equation above.

Table 3. Ordinary Least Squares Regression (OLS)

Dependent Variable = STD/CAP

Explanatory Variable	**Coefficient**	***t* statistic**	**Significance**
Constant	2113.515	3.174	0.002
BLACK	-4.929	-0.856	0.394
WHITE	-11.634	-1.819	0.072
HISPAN	-10.682	-1.648	0.103
ASIAN	-7.262	-0.763	0.447
PCINC	-2.197	-0.614	0.541
UNEMP	-28.046	-1.476	0.143
NONREL	1.351	0.647	0.519

Regression F value [7, 92] = 2.411	0.026
R^2 = 0.155	
Adjusted R^2 = 0.091	
N = 100	

All ethnic components ended up with coefficients that were negative in sign, which was unexpected. The coefficients of the demographic WHITE and BLACK regressors were not significant, as predicted. *Per-capita* income (PCINC) was one of two regressors with promising results. It had the expected sign (negative) but was not statistically significant at a level of five percent or lower. City unemployment rate (UNEMP) was neither positive nor statistically significant as expected. The percentage of individuals in a city or town identifying as non-religious (NONREL) was the second regressor with promising results. While it was not statistically significant, it was positive in sign as expected. Another promising result was that the regressor set as a whole was significant, with a regression *F* value of 2.411 and a level of significance of 2.6 percent. The R^2 of the equation is 0.155.

Since these initial results seemed to be masking which of the predictor variables in the statistically significant specification was (were) the most statistically significant, a stepwise regression was run on the full specification to zero-in on the most significant, if any, of the predictor variables. TABLE 4 below displays the results of this stepwise regression.

Table 4. Stepwise regression Dependent variable = std/cap			
Explanatory Variable	**Coefficient**	***t* statistic**	**Significance**
Constant	954.515	19.491	0.000
BLACK	4.018	3.440	0.001
Regression F value [1, 98] = 11.833			0.001
R^2 = 0.108			
Adjusted R^2 = 0.099			
N = 100			

Among the original seven dependent variables specified (BLACK, WHITE, HISPAN, ASIAN, PCINC, UNEMP, and NONREL), the stepwise algorithm sequentially dropped all but the BLACK demographic component. The coefficient of this predictor turned out to be positive and significant at 0.1 percent, which satisfied at least part of the authors' expectations about the demographic components of the full specification. The regression as a whole was significant, with a regression

F value of 11.833, which was significant at a level of 0.1 percent. The R^2 of the stepwise equation is lower than the full specification (which is expected), but the adjusted R^2 is an improved 0.099, which suggests a better "goodness of fit" and more reliable specification (Frost, 2013, para. 7).

While the OLS results of the full specification left a lot to be desired, the stepwise results were impressive and encouraging for future research. The stepwise results also confirmed at least part of the expectations of the authors with respect to the demography of STDs based on reasonable projections that could be made from the findings of the NCCDPHP report of 2004.

CONCLUSION

Tuskegee was designed and implemented in the early Twentieth Century by progressive public-health advocates who were concerned about the high rate of incidence of STDs in the black-American community. Demographic health studies have shown that black males and females have experienced steady increases in life expectancy since the 1950s, particularly black females. However, forty-five years after the end of Tuskegee, which was designed to reduce the incidence of STDs (viz., syphilis) in black males, the latest empirical evidence suggests that there is still work to be done.

However, the usual threadbare conclusions from today's academic and political establishment would undoubtedly entail new public-health programs and spending along the lines of which have already occurred and met with little progress for the past 45 years. The pre-Tuskegee history of the industrial organization of U.S. medicine suggests another direction: one addressing the economics of exclusion that has been part of the rise of the U.S. medical cartel since 1910.

A repeal of the restrictions inspired by the Flexner Report, elimination of payment of routine services in health insurance, and elimination of the AMA monopoly on medical-school accreditation would be good first steps on the path to dismantling the cartel, alleviating the stifling shortage of physicians in the U.S. (allopathic and other), and making medical care much more affordable to Americans of all ages and ethnicities.

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TRENDS AND CHALLENGES IN CHINA'S VENTURE CAPITAL MARKETS

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ABSTRACT

Despite being the world's second largest economy, China accounted for only 7% of global Venture Capital (VC) activities in 2013. In further expanding the industry, China can unleash an engine of creativity and investment. This matters to business and political leaders today because entrepreneurs are critical to China's growth, yet face severe difficulties raising capital. Given China's immature capital markets, a healthy VC industry is particularly essential to the SMEs that drive the economy. VC is currently experiencing a boom in China, but it goes regularly through boom and bust cycles. In this way the industry is failing to achieve its potential. The regulators of China's financial industry should act to improve the stability and dependability of VC investment. From the perspective of the VC firms, there is currently a lot of money on the sidelines. Deploying those funds will make them productive, and allow the general partners to practice their craft and the limited partners to profit from their investments.

Keywords: China, Venture Capital, Financial Markets, SMEs

INTRODUCTION

This paper investigates the current state of the Venture Capital (VC) industry in China, highlighting the opportunities and challenges it faces. It identifies changes that are needed to improve the industry's health and outlook, and who should make those changes. It also explores strategies that individual Entrepreneurs and VCs can use to maximize their chances of success.
The issues we examine are important since Chinese VC has huge growth potential. Despite being the world's second largest economy, in 2013 China represented only 7% of global VC activity (EY, 2014). By understanding the constraints on the industry, and by addressing them, China can unleash an engine of creativity and investment. This matters to business and political leaders today because entrepreneurs are critical to China's growth, yet face severe difficulties raising capital.
Small and Medium Enterprises (SMEs) provide over 80% of China's urban jobs. The Ministry of Industry and Information Technology calls them "irreplaceable in boosting economic growth" (Xinhuanet, 2014). Yet they face severe difficulties in raising capital. Most banks in China are state-owned, and 70% of their loans are made to State Owned Enterprises (SOEs). Some have gone unrepaid, and the banking system is "fragile" (Lin, 2012, p. 193). Since the government relies on this system to fund SOEs, the banks offer little support to SMEs.

The market for corporate junk bonds, established in 2012, is still immature. High-profile defaults have dampened enthusiasm for such investments, and borrowing costs are "soaring" (Bloomberg, 2017a). Given the deficiencies in the capital markets, a healthy Venture Capital environment is crucial to the SMEs and the whole economy.

In addition, the sector is prone to boom and bust cycles. Chinese VC is experiencing a boom: Q2 2014 investments were the highest since VentureSource began collecting data in 2006 (Venture Capital Dispatch, 2014). The trend continued into 2016, with PE and VC fundraising reaching an all-time high of $73Bn. But fundraising and investment are sporadic. It's important to understand and address this instability.

Further, there are gaps in our understanding of the system. As our literature review highlights, there is a limited amount of available research on the VC sector in China. Market data is also limited, with many firms reluctant to share or pool information.

Finally, the business and regulatory environment is changing fast. China's growth trajectory is changing, and so is the China model of economic development. Entrepreneurs can no longer count on 10% GDP growth every year to support their business plans. But some sectors are doing extremely well and producing home runs for investors. VCs should understand those sectors, and how the changing economic and regulatory environment is likely to impact their chances of success.

INDUSTRY OVERVIEW

China's first VC firm, China New Technology Venture Capital Company, was established with government funding in 1985. The industry remained small until legislation in 1998 designed to promote its development was passes (Xiao & Zhou, 2013, p. 75). This was followed in 2005 by central government guidelines directing local governments to support VC with favorable tax treatment, financing assistance, and direct investment (Linton, 2006). VC fundraising took off with those reforms. Growth was further boosted by the establishment of a NASDAQ-like "venture board", known as ChiNext on the Shenzhen stock exchange in 2009. This facilitated local IPOs for Venture-backed firms, and stimulated the development of RMB-based funds (RMB refers to reminbi, the local Chinese currency). Fundraising in the years to 2008 was substantially US dollar based; in subsequent years most funds raised have been in RMB. By 2016, as shown in Figure 1 below, fully 76% of funds raised by VC and PE for Chinese investment were denominated in RMB.

Industry Size and Growth: Investments

VC investment grew steadily until 2011 then declined substantially in 2012. Reasons for the decline include a "policy adjustment storm" warning by CSRC, the China Securities Regulatory Commission (CNSTOCK.com, 2012). This was followed by a sharp reduction in IPO volume and a general decline in share prices (zero2ipo.com.cn, 2012). The market continued to be difficult in 2013, with a complete freeze on domestic IPOs. Given that fundraising and investments declined in lockstep, the funds available for investment changed little during this period and set the stage for the resurgence of activity seen in 2015 and 2016. (*See* Figure 2 below.)

Figure 1. China PE/VC Fundraising 2012-2016 (PWC, 2017)

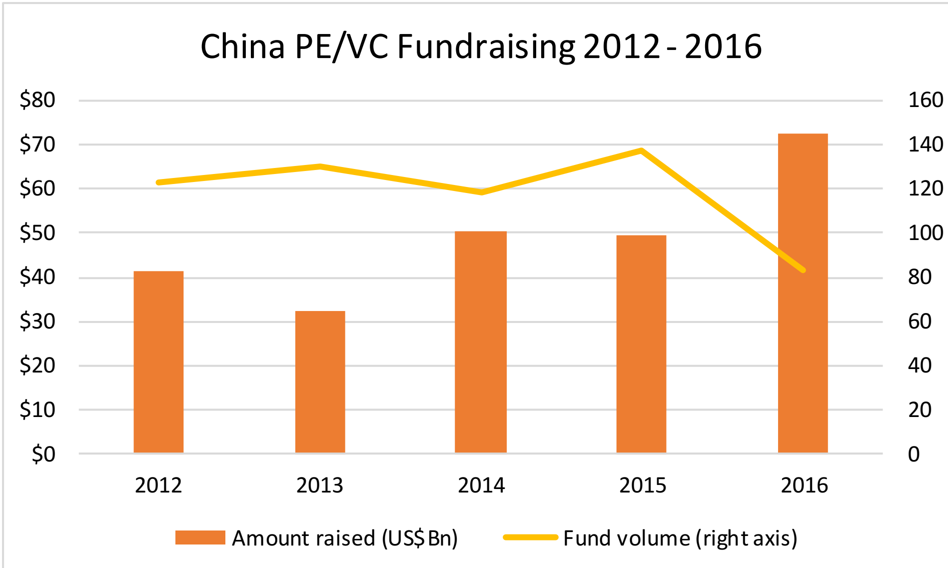
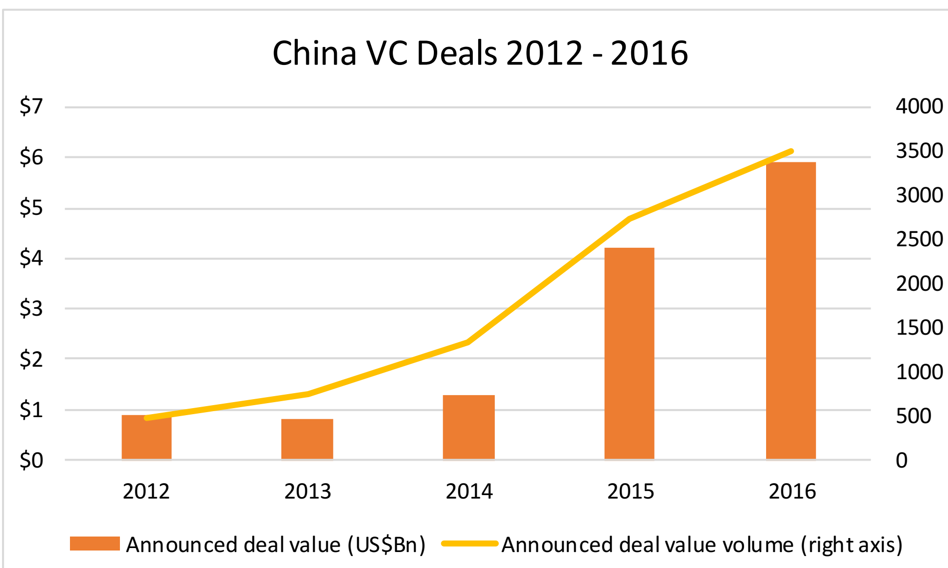


Figure 2. China VC Investments 2012-2016 (PWC, 2017)



Venture Capital with Chinese Characteristics

Observers familiar with US or European Venture Capital will notice some peculiarities of the Chinese industry. These are summarized below, as they influence the subsequent analysis:

Fast paced and uneven regulatory change. The 2012 "policy adjustment storm" and 2013 IPO moratorium are just two examples of the rate of change in regulations as the industry continues to develop.

A heavy reliance on IPOs: Most VC exits in China are IPOs. 70% of technology sector exits are through IPOs. By comparison, 90% of US technology exits are M&A (Blank, 2013). With the 2013 IPO moratorium, China M&A exits doubled, but only from 11 to 20 deals (EY, 2014, p. 20).

Blurring of VC and Private Equity: In rapidly developing economies, investment opportunities are found in firms at all stages of development. The distinction between VC and PE is blurred, and funds compete in both (Ahlstrom, Bruton, & Yeh, 2007, p. 249).

Returns: Comparing China and the US

Cambridge Associates supplies the National Venture Capital Association with data on US VC performance. While returns vary widely with time frame and fund, they show that the annualized return over the last 20 years for VC investments was 30% per annum. That figure is a peak, not an average, as seen in Figure 3. But 20 years is an interesting period for comparison, since that's how long the China industry has really been active.

Figure 3. US Venture Capital returns over 1 to 30 Years (Cambridge Associates LLC, 2013).

CA Index	1-Year	3-Year	5-Year	10-Year	15-Year	20-Year	25-Year	30-Year
Cambridge Associates LLC U.S Venture Capital Index®1	8.89	13.52	5.68	7.80	22.79	30.07	19.77	17.06

Comprehensive data is unavailable for China, where disclosure and secrecy standards are very different. But Cambridge Associates does track 45 China VC firms reporting over the last 20 years; this data is available through Thomson One. The reported return for those 20 years is 19.32% (Thomson One, 2014). So while returns in China are lower than in the United States, the industry has generated healthy returns over the last 20 years.

Unfortunately, the China data is less rich and less dependable (small sample size, less certain reporting quality) and it provides limited insight into the performance of the industry.

Major Players

Table 1 below lists the most active VC industry players in China in 2013 by number of deals. Data is from the Asia Venture Capital Journal (AVCJ, 2014). The table was filtered to exclude those which are not VC firms (e.g. hedge funds). Notes are added to clarify the firms' origins and focus.

Table 1. Major Players in China VC 2013

Name	Nationality	Number of 2013 deals	Notes
Shenzhen Capital Group China	PRC	44	One of the first Chinese PE funds; established by the Shenzhen government to fund innovation
Sequoia Capital	US	26	Founded in 1972, "one of Silicon Valley's most influential VC firms" (Buckman, 2008)

IDG Ventures	US	22	One of the first foreign VCs to enter China in 1992, now manages over $2.5Bn there.
Matrix Partners	US	18	Chinese arm of the established Palo Alto VC firm with $350M raised (crunchbase.com, 2014)
Morningside Technologies	HK	16	Established by the Chan HK real-estate family. Active in technology startups.
GGV Capital	US	15	Menlo Park based Expansion Stage VC firm with investments across US and China
CDH Investments Management	PRC	13	VC established in 2002 by the former private equity group of China International Capital Corporation
Qiming Venture Partners	US	12	US invested VC founded by Gary Rieschel, focused on technology investments in early to growth stage
Tencent Collaboration Fund	PRC	10	VC fund established by Tencent, developer of China's QQ IM platform
Gobi Partners	PRC	10	Early stage VC focused on IT; took Tuniu Travel public on NASDAQ in 2014
Temasek Holdings	Sing	10	The Singapore sovereign wealth fund involved in a whole range of VC and PE activities
DCM	US	10	US based fund managing over $2.5Bn Co-founded by Dixon Doll in 1996.
CBC Capital	PRC	9	Beijing based firm focused on Media and Communications. Manages $500M and RMB1.4Bn
China Renaissance K2 Ventures	PRC	9	Seed, Early Stage, and Later Stage VC in E-Commerce and mobile applications

LITERATURE REVIEW

While VC is a global phenomenon, the Chinese industry clearly has Chinese characteristics, which are highlighted in the literature.

Entrepreneurship in the "China Model" of Economic Development

In their paper, Jiang et al point out the importance of SMEs to China's economy. They highlight the difficulties that SMEs face raising capital in system dominated by state controlled banks, and find VC's play "a critical role" in financing SMEs (Jiang, Cai, Keasey, Wright, & Zhang, 2014).
Ahlstrom and Ding's history of entrepreneurship exposes other challenges that China's institutions pose to entrepreneurs (Ahlstrom & Ding, 2014). Li and Zahra call those institutions "a set of political, economic and contractual rules" that can collectively promote VC investment (Li &

Zahra, 2012, p. 97). Gu and Lu relate those institutions' weakness to the Corporate Governance of SOEs which are owned, regulated, *and* financed by the state (Gu & Lu, 2014).

A related challenge is the prevalence of fraud. Stuart and Wang studied 467 private technology companies and found that over half of them maintained two sets of books. They also found that companies with politically connected founders, and VC invested companies were "much more likely to commit fraud" (Stuart & Wang, 2014).

Unsurprisingly in a planned economy, much of Chinese VC is state-sponsored. Brander et al view government-sponsored venture capital (GVCs) as valuable, enabling enterprises to receive more funding than they would get from private VCs alone (Brander, Du, & Hellmann, 2014). However, the involvement of State-owned banks and institutions is contributing to an oversupply of Private Equity capital (Knowledge@Wharton, 2014).

The Challenge of Adding Value in a Chinese Context

VCs normally add value to their firms through their "human capital". But this does not usually travel well; foreign VCs add little human capital value to Chinese firms (Wang & Wang, 2011). This may be due to the importance of *guanxi*, a network of personal and business relationships. Domestic VCs with political connections can ease the progress of firms to domestic IPOs (Wang, Anderson, & Chi, 2013). Nonetheless, foreign VCs add value in another way -- they are more likely to internationalize their invested firms (Humphery-Jenner & Suchard, 2013).

The value added by foreign *and* domestic VCs is debated: VC backed firms grew at an average of 35% in 2010, much faster than the broad economy (Xiao & Zhou, 2013). But the higher growth, profitability and labor productivity of VC backed firms may simply be evidence of VC selection criteria rather than value added (Guo & Jiang, 2013).

Working with a different dataset, Tan et al concluded that Chinese VCs do not add value in the IPO process, and do not improve operating performance (Tan, Huang, & Lu, 2013). In the most extreme view, Lu et al hold that Chinese VCs exist solely to capture rents from institutions like those described by Ahlstrom and Ding (Lu, Tan, & Huang, 2013).

Lu et al also show that Chinese VCs invest predominantly in "traditional sectors and late-stage deals". Due to the abundance of investment opportunities in emerging markets, the distinction between Venture Capital and Private Equity is blurred (Ahlstrom, Bruton, & Yeh, 2007).

Angel investors are increasing filling the early-stage gap. Li et al review their activities, and show that they also have "Chinese characteristics"; they are not all high net worth individuals, and they tend to spread their investments, taking a less hands-on role than their western counterparts (Li, Jiang, Long, Tang, & Wu, 2013).

The China Operations and Strategies of Foreign Firms

Writing in 2006, Linton described the regulations regarding foreign venture capital investment as "chaotic and changing" (Linton, 2006). It is encouraging to note the progress that has been made since then, with some easing of capital controls and ownership restrictions. Wei observes that Variable Interested Entities, designed to skirt foreign-ownership rules, represent a kind of "creative compliance" with the regulations (Wei, 2012).

In segmenting the industry, Ahlstrom et al studied foreign firms, government backed firms, Universities, and corporate VCs. With over 500 firms in the market, they felt that valuations had been driven up by "too much money chasing too few deals" (Ahlstrom, Bruton, & Yeh, 2007). Fuller identifies three different VC profiles and investment strategies in China (Fuller, 2010): (1) "Service oriented, technology light" investment by foreign VC firms; (2)" Technology creation investment" by foreign firms founded by ethnic Chinese; (3) Investment in "state-directed projects" by local state-funded VC firms.

Another characteristic of the Chinese VC process is the preference for IPO exits rather than Stategic Sales. However Humphery-Jenner and Suchard show that foreign VCs tend to prefer M&A exits, possibly due to the extended lock-up periods enforced on VC backed IPO's (Humphery-Jenner & Suchard, 2013). Restrictions on foreign ownership of companies in "sensitive" industries also inhibit M&A activity.

DETERMINING VC MARKET ATTRACTIVENESS

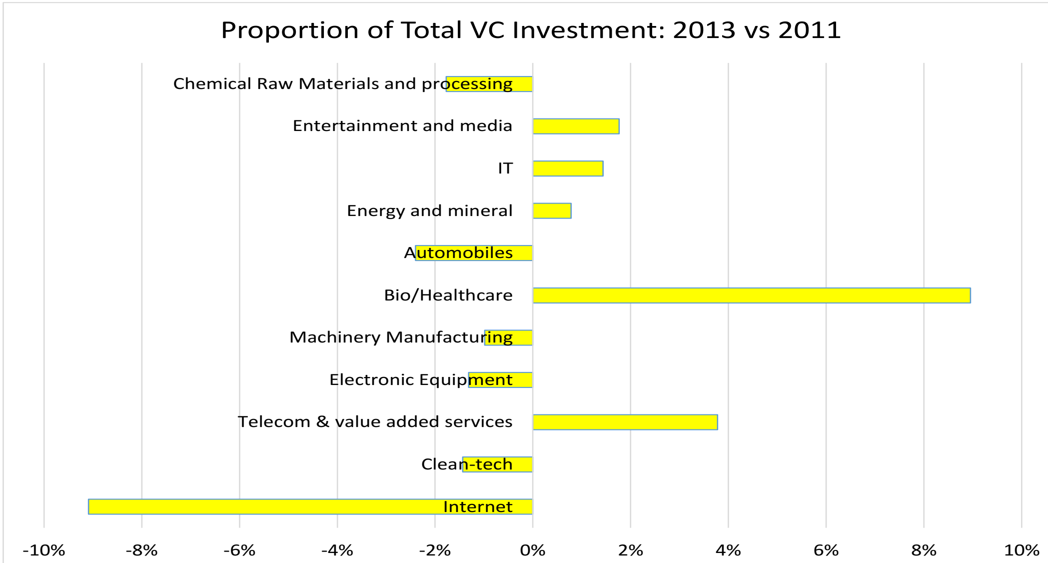
In this section, we use the IESE parameters for VC market attractiveness (Groh, Liechtenstein, & Lieser, 2013) to describe recent changes impacting VC activity in China. This section concludes with a summary of findings.

Economic Activity

GDP growth is slowing from a thirty-year average of 10% to a projected 6.5% in 2017 (Bloomberg, 2017b). This could suggest a reduction of entrepreneurial activity with negative implications for VC. However, the authorities are also trying to rebalance China's economy. Recognizing that they cannot continue to grow exports forever, the then China's party Chairman Hu Jintao told the 18th Party Congress that "China's economy must be driven more by domestic demand, especially consumer demand. We should unleash the potential of individual consumption" (Dollar, 2013, p. 3). If successful, this will create new markets for services like travel, healthcare, entertainment and education, all of which can provide VC deal opportunities.

Figure 4 below highlights how these changes are affecting VC investments. The industry segments that accounted for 70% of China VC investment in both 2011 and 2013 are shown in the figure. It shows how the proportion of total investment allocated to each industry changed over those two years. The increase in Biotech and Healthcare from 4% of total investment in 2011 to 13% in 2013 indicates its emerging importance. The decrease in Internet investment may reflect how overheated that market was in 2011 before the bubble burst (Mourdoukoutas, 2011). Smaller increases in Telecoms, value-added services, and Entertainment also reflect growing interest in these sectors as manufacturing declines in importance.

Figure 4. Changes in Proportion of Total VC Investment 2011 to 2013
Data: (zero2ipo.com.cn, 2012, 2014)



Entrepreneurial Culture and Deal Opportunities

Entrepreneurs are crucial to China's economy, and they have trouble raising capital. VCs are particularly interested in entrepreneurial firms involved in R&D. Such firms may develop Intellectual Property (IP) assets, but lack tangible collateral for raising bank loans.

Government has noted the need to support technology startups, and responded with initiatives including the Technical Innovation Fund for Small and Medium-sized Enterprises. By 2010 there were 720 VC enterprises in the country, and the average fund size was RMB330m (Shen, 2012).

While US R&D spending increased by just 5% from 2008 to 2013, China's has almost doubled (The global innovation index, 2014, p. 6). The increase was accompanied by a boom in patent applications and Research publications. This created pressure to improve IP protection. The 2013 National IP Strategy is a comprehensive plan to improve the "IP culture". If implemented fairly, it will enable real value creation through IP development. But the economic impact of all this activity appears limited: China's Total Factor Productivity has "apparently flatlined" (Li, 2014).

Other indicators of entrepreneurship are also mixed: The relative ease of starting a business in China declined slightly in 2013 while access to credit improved slightly (World Bank, 2014).

A potential concern is the reliance of internet entrepreneurs on the "copy to China" model, imitating Western business models like Amazon, Google, Paypal, and YouTube. These startups have seen significant investment, but "the space is getting really crowded" (Blank, 2013). The attractiveness of Internet investments will improve when this sector becomes more innovative.

Size and Depth of Capital Markets

The success of Venture Capital depends on robust markets, with healthy IPO and M&A activity.

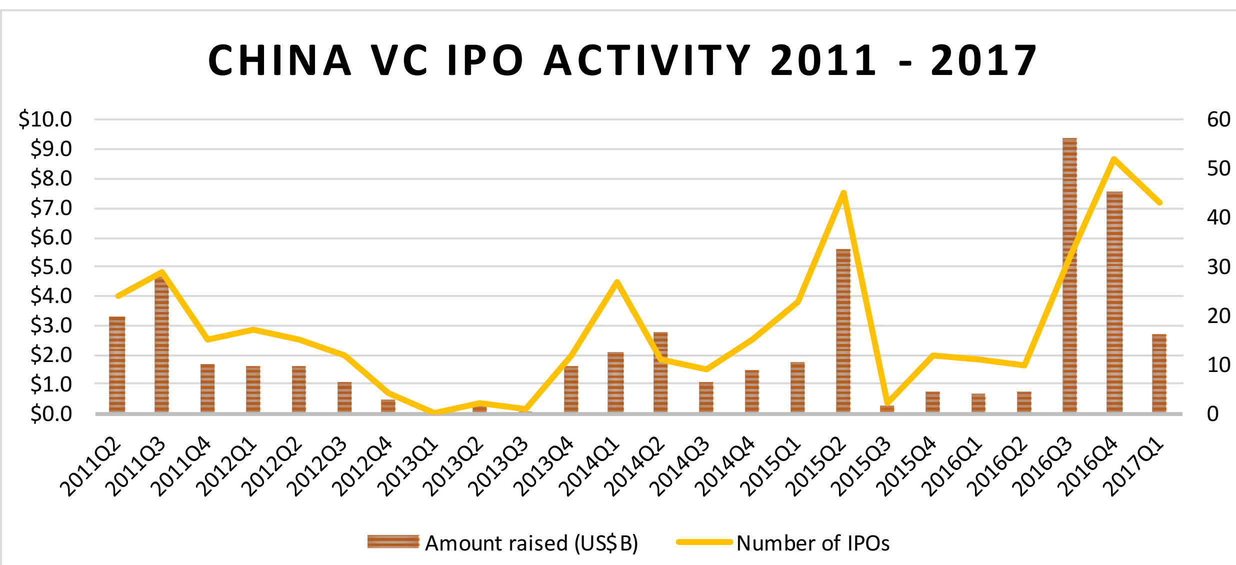
Equity Markets and IPO activity. Table 2 compares the Shanghai and Shenzhen stock exchanges with the NYSE and NASDAQ, as well as the Hong Kong Stock Exchange. (Shenzhen includes the ChiNext Board). The Chinese markets are significantly smaller. But a bigger concern is the level of IPO activity: there was an IPO moratorium in China for all of 2013. This was obviously a significant challenge for VC's planning exits. IPOs on foreign markets continued during this period, but the local exit was closed.

Table 2. Market Size, Depth and Health (World Federation of Exchanges, 2014)

Dec-13 2014	Domestic Market Cap (USD $M)	Value of share trading (USD $M)	Number of Listed Companies	IPO's
NYSE	17,949,884	15,308,724	2,371	141
NASDAQ	6,084,968	26,643,654	2,637	117
HKSE	3,100,777	1,447,272	1,643	110
Shanghai SE	2,496,990	3,799,768	953	---
Shenzhen SE	1,452,154	3,938,991	1,536	---

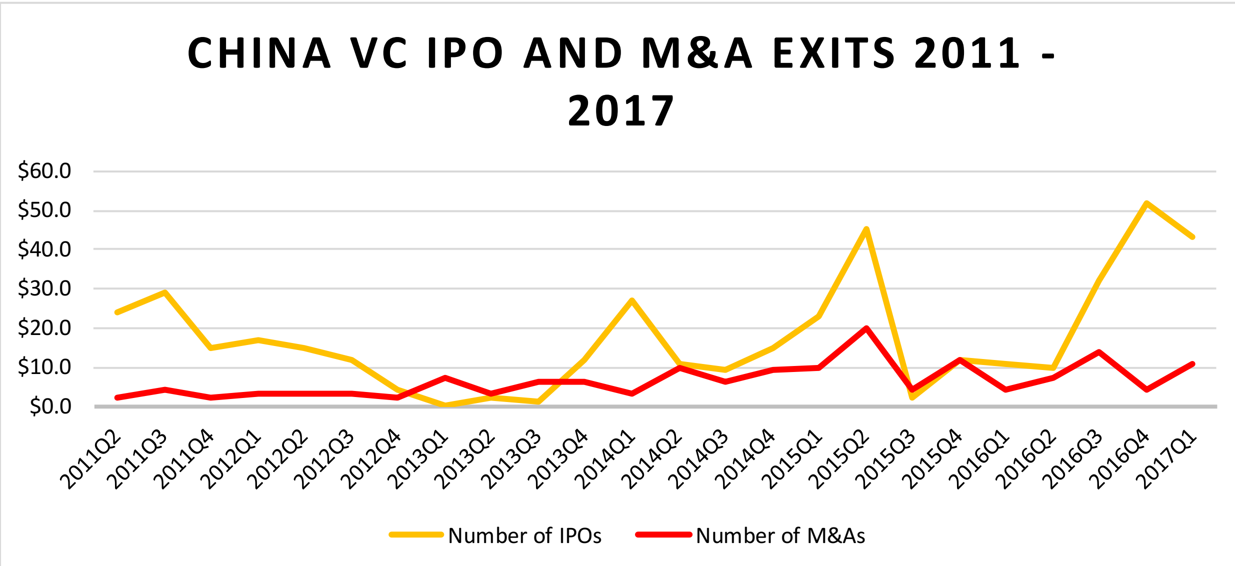
IPO approval resumed in 2014. Figure 5 below illustrates the rebound in IPO activity in the first six months of 2014. IPO activity is still tightly controlled – despite an announced relaxation of listing regulations, there were 676 companies awaiting IPO approval at the end of 2016 (Deng, 2016).

Figure 5. China VC backed IPOs and amount raised 2011-2017 (Dow Jones, 2014, 2017)



Finally, Figure 6 shows that M&A activity increased during the IPO moratorium, and is continuing at historically high levels. But M&A is unlikely to become the dominant VC exit mode given the restrictions on foreign acquisition of Chinese companies.

Figure 6: China IPO and M&A based exits 2011 – 2014 (Dow Jones, 2014, 2017).



Shanghai Free Trade Zone. Shanghai's new "FTZ" is expected to permit more capital movement in and out of China, facilitating VC investments. In theory, foreign funds located there can raise up to $300M in investment capital. The current limit is $50M. However, the FTZ is new and the "rules remain unclear" (Rabinovitch, 2014).

Taxation

The taxation regime is critical to encouraging entrepreneurship and fostering a healthy VC market. The most important factor is the taxation incentive to entrepreneurship – the difference between the effective corporate tax rate and that paid by individual earners (Groh, Liechtenstein, & Lieser, 2013).

A September 2013 announcement affects taxation for the 20,000 technology-based startups clustered in Beijing's Zhongguancun Science Park. Taxes were reduced by up to 15%, and taxes are waived on patent-related income up to 5 million yuan. Tax on patent income above that level will be halved. Personal income tax for investors will also be lowered. According to the State Council, such policies will be "gradually promoted nationwide" (China Daily, 2013). This, and the science park's September 2013 strategic agreement with the Deutsche Borse to help more Chinese companies list in German stock markets, should have positive implications for VC activity in this segment.

Investor Protection and Corporate Governance

Investor Protection is correlated with healthy capital markets: countries with better Investor Protection develop healthier firms paying higher dividends (Shleifer & Wolfenzon, 2002). Companies which employ professional management, have independent boards, and align executive compensation with shareholder interests have better stock market prospects (Moore, Bell, Filatotchev, & Rasheed, 2012).

Chinese equity markets evolved to meet the Capital-raising needs of SOEs. The state is now the major shareholder and the regulator of these "Public" companies. This is not a positive environment for minority shareholders. It creates severe corporate governance challenges and limits market development (Liu, 2005). Corporate governance concerns are one reason why Chinese IPOs leave money on the table: the average underpricing of IPOs is 247% (Tian, 2011).
In November 2013, the Party announced reforms to make China's economy more market-driven. These include separating CEO positions from political rank, relaxing restrictions on registered capital, and changes intended to encourage foreign companies to open R&D and Financial centers in China (Global Times, 2013). If these changes are implemented, they will have a positive impact on Corporate Governance generally, and VC activity specifically.

Chinese auditing standards also present a corporate governance challenge for VC's hoping to list their companies in the US. The China units of the Big 4 accounting firms were at one point barred from practicing before the SEC. This was due to a dispute over the firms' refusal to disclose working papers which they claim are Chinese "state secrets" (Romann & Yang, 2014).

Human and Social Environment

Education. Literacy in China is high, and University output is impressive: China currently graduates 900,000 Engineers per year, compared with 80,000 in the US (People's Daily Online, 2014). It is also the world's top producer of PhDs. But questions have been raised about the quality of all that output, given the drive for quantity (Group of Eight, 2013).

Labor market rigidity. China's *hukou* system prevents the free movement of labor by restricting migrant's access to jobs and services. The Urbanization Plan for 2014-2020 calls for 100 Million migrant and other urban residents to get full "urbanite status" (China Economic Net, 2014). If successful, these reforms will transform the labor market by 2020. This is potentially very positive for its entrepreneurial sector and VC market.

Levels of bribery and corruption. Transparency International rates China business as more corrupt than Western countries. President Xi Jin Ping is driving an anticorruption initiative, in the belief that corruption is corrosive not only to business, but to the Party's ability to hold power. Senior Party officials have been expelled for taking bribes. Anecdotal reports suggest that bribe taking and corrupt deals have been severely reduced.

Is the market attractive? Based on the above analysis, we can make the following observations:
The industry has produced reasonable returns in the last 20 years. With GDP growth rates slowing, and an uncertain economy, VC is losing some of its attractiveness. But the "rebalanced" economy

will create investment opportunities in industries serving domestic consumption. The internet industry needs to move on from the "copy to China" model. But other technology sectors, including Telecommunications, Media, and Mobile applications will continue to grow. As the 911 Wireless Case in the Appendix shows, these sectors are increasingly open to M&A exits by VCs.

IPOs have resumed on Chinese exchanges, reopening another viable VC exit path. New tax initiatives will spur entrepreneurial activity, and the anticorruption drive may level the playing field for deal makers. So we conclude that the market is still attractive to VC's who can navigate the changes identified in the analysis.

CONCLUSIONS AND RECOMMENDATIONS

Given China's immature capital markets, a healthy VC industry is essential to the SMEs that drive the economy. VC is currently experiencing a boom, but it goes regularly through boom and bust cycles. In this way it is failing to achieve its potential. The regulators of China's financial industry should act to improve the stability and dependability of VC investment. From the perspective of the VC firms, there is currently a lot of money on the sidelines. Deploying those funds will make them productive, and allow the general partners to practice their craft and the limited partners to profit from their investments.

So what steps should be taken to address the challenges identified? Below is a list of our recommendations.

(i) Build a more predictable IPO process to end the Boom and Bust cycle.

CSRC currently controls the number of IPOs allowed in a given year. It has announced new policies that would allow market forces to set IPO prices and determine timing. But at the time of writing there are hundreds of firms awaiting approval.

(ii) Valuations are driven up by too much money chasing too few deals.

The state should reduce its role in VC and Private Equity. It is claimed that the industry in China has too many inexperienced players who contribute to over-valuations (Knowledge@Wharton, 2014). The industry should be allowed to consolidate along market lines.

(iii) Improve disclosure regulations and enforcement to reduce underpricing of IPOs

Underpricing is associated with information asymmetry; investors can't make a fair assessment of a company's value. China's weak disclosure regime reinforces this. CSRC should mandate better disclosure and prevent public companies from hiding behind secrecy laws. Ultimately, China and the US should harmonize their disclosure regimes. This would defuse the situation where the Big 4 accounting firms are unable to certify the finances of Chinese companies listed in the US. It would also allow for the collection of better data on the VC industry.

(iv) Remove some of the impediments to M&A activity.

Foreigners are prohibited from investing in "sensitive" industries, including energy, technology, and value-added telecommunications (Shi, 2014, p. 1265). While workarounds have been found, including the VIE structure employed by Alibaba and others, a less restrictive M&A environment would facilitate the development of these industries with Venture Capital.

The regulatory changes described above are necessary, but they will take time. Some of them, like the harmonization of disclosure rules, may never come about. In the meantime, there are specific things that investors and entrepreneurs can do to improve their chances of success:

(i) Adjust to the changing China Model

As the economy rebalances, domestic consumption of goods and services will begin to dominate. VCs should seek investment opportunities in the industries described in Section IV above, and downplay manufacturing and related sectors. Telecommunications, Media and Technology (TMT) all appear to have growth potential, particularly as they advance beyond the old "copy to China" model. With the BATS on an acquisition spree, this sector is increasingly promising for trade sale exits.

(ii) Play to the strengths of the VC model

By emphasizing the value that they add to target firms, experienced VC firms can differentiate themselves in a market which appears to be awash in capital and inexperienced investors.

(iii) Improve Corporate Governance before the regulators do

Corporate Governance and Investor protection are positively correlated with firm valuation. Entrepreneurs can make their firms more attractive to investors by implementing good governance: professional managers replacing founders, independent boards providing strategic guidance, and compensation schemes which align management interests with shareholders.

By taking the steps outlined above, both VCs and investors can maximize their chances of success in the dynamic world that is Chinese Venture Capital. In the Appendix below, we briefly examine a recent VC deal in the technology sector to illustrate the key trends in China's VC industry.

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APPENDIX

THE CASE OF THE SALE OF 91 WIRELESS TO BAIDU IN 2103

There are three key trends in the technology VC sector in China right now.

(i) Technology Firms are increasingly valuable as IP protection improves.

(ii) Trade Sales are becoming a viable exit strategy.

(iii) As the internet sector matures, buyers will value firms that have users and revenue.

Background to the Deal

Baidu has been China's dominant search engine since Google exited the market in 2010. Baidu built its lead in pc-based search, but the internet is going mobile. In 2014 China had 632 million internet users, of whom 83% were mobile users (Reuters, 2014). Baidu has difficulty winning mobile customers, and its business model has not translated well to the mobile space (Mozur, 2013).

Most Chinese cellphones use Google's Android platform, but access to the Google Play app store has been difficult since Google's departure. Instead, apps are downloaded from several competing third party stores. 91 Wireless is one of the largest, with 200 million users and around 100,000 developers offering 900,000 apps .The company had 2012 revenue of 280 million yuan and projected 2013 profits of over 6 million yuan (Xiang, 2013).

In 2013, 91 Wireless was owned by HK-listed NetDragon Websoft, with minority investments by VC firms IDG, Temasek, and Pacific Century. In April 2013 Dragonsoft announced its intention to spin-off 91 Wireless through an IPO in HK (CaixinOnline, 2013).

The Transaction

In July 2013 the HK listing was abandoned when Baidu agreed to buy Dragonsoft's holding. The price valued 91 Wireless at $1.85 Billion. Baidu offered the same terms to all other shareholders. IDG Ventures owned 10.39% and IDG founding partner Hugo Shong described it as "his happiest moment" that year (Lee, 2014).

In a 2011 Series B funding round, 91 Wireless Company had been valued at $140 Million (Xiang, 2013). The $1.85 Billion valuation was therefore much discussed. One analyst observed that Baidu had limited choices, given how late it came to the mobile market (Xinhua, 2013). Baidu's CEO Robin Li had previously announced that it preferred "buy to build, because that will save us time" in developing its mobile offering (Chen, 2013).

Implications

M&A is becoming more prevalent in China’s tech sector. Firms wanting another company’s technology previously found it “much easier to just steal their ideas and hire their employees” (Blank, 2013). A combination of improved IP protection and a sense of urgency around market penetration is changing that dynamic. From 2002 to 2010, China’s BATS (Baidu, Alibaba, Tencent, and Sina) spent just $800 million on acquisitions. Since 2010 they have spent over $6.5 billion (Borroughs, 2013).

The fact that Dragonsoft chose the trade sale over an IPO, and at a rewarding valuation, is also a counter-trend. Previous VC exits in the tech sector were overwhelmingly by IPO.

While this was China’s biggest domestic Internet transaction at the time, it may not hold the record for long. Alibaba announced in June 2014 that it intends to complete its acquisition of mobile browser developer UCWeb. It claims “this will create the biggest merger in the history of China's Internet” (Clover, 2014). VCs invested in technology firms can clearly target buyers with deep pockets for strategic sales.

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