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Includes:

Competitive Papers

Best Practices

Workshops

Competitive Abstracts

Roundtable Discussions

Harrah's New Orleans
New Orleans, LA
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From the *Proceedings* Editor

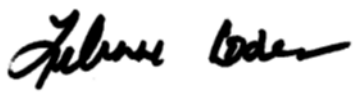
It is my pleasure to welcome you to the 44th Small Business Institute® Annual Academic Conference in New Orleans, Louisiana!

Each year, we are honored to receive a wonderful collection of submissions to the SBI Annual Conference. This year is no exception, as you will see in the 39 Competitive Papers and Abstracts, eight Best Practices, four Workshops, five Innovative Education, Teaching, and Pedagogy presentations, and six Roundtables being presented at this year's conference. You, our members, are the reason the 2020 volume of the Proceedings is such a high-quality publication. The time and effort you invest into research and other small business and entrepreneurial projects makes the SBI what it is and allows this conference to showcase the great work being done in our area. I hope you enjoy reading these Proceedings. I believe there are projects its pages that both explore under-researched areas and discuss new research and teaching approaches. I enjoyed reading them and I hope you will as well.

The publication of these Proceedings would be impossible without you, the SBI membership. Your hard work and diligence cannot be applauded enough and is critical to the continued success of SBI. I would personally like to thank those who reviewed the many papers, abstracts, projects, and other submissions received this year. Your insightful feedback and thoughtful comments are highly valued by authors and help to create the friendly and supportive research culture that the SBI is famous for.

Finally, thank you to the SBI Board for the countless hours you all spend making our conference happen, and specifically for making the Proceedings successful. I would like to personally thank Andrew Holt for his expertise and patience in guiding me through this process, and the rest of the Board for their efforts in supporting and developing this unique organization.

We're glad you're here!



LeAnne Coder
Vice President of Programs, Elect

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COMPETITIVE PAPERS

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How Unicorns are Theoretically Different from Startups

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Abstract

The number of unicorns, startups valued over $1 billion, has steadily risen over the past decade. The abnormally high valuation of a unicorn from investors is based on their potential to disrupt a market and create a new paradigm. With this as the backdrop, this piece asks the question, what theoretical tools do we have to understand unicorns? Specifically, we explore agency theory. We argue that if principals and agents agree on the goal of disruption, then perhaps the agency that does occur in unicorns is beneficial, not a cost. Further, we argue that the principals of unicorns do want agents to take higher than normal risks with their investment to disrupt a given market. From this phenomenon, we introduce the concept of agreeable moral hazard and its use in the unicorn setting. Not only does the concept of agreeable moral hazard provide theoretical implications for future research, but it also highlights the need for more research to test existing theory on the unicorn population.

Keywords: Unicorns, Moral Hazard, Agency Theory, Disruption, Venture Capital

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INTRODUCTION

Startup unicorns are pre-IPO ventures that have been valued over $1 billion. Just a few years ago, there were only a handful of these companies in the world, which is why they are referred to as unicorns (Schindehutte, 2016). As of the beginning of 2019, there are 328 ventures that would be considered unicorns, with anticipation that more on quickly on the horizon (cbinsights.com, 2019). While it has been claimed that studying unicorns are a distraction from understanding "real" entrepreneurship (Aldrich & Ruef, 2018), this piece will demonstrate that unicorns represent a unique and new sample of ventures to expand upon existing theory. From a theoretical standpoint, scholars have argued that due to the congruence of goals between investors and ventures to grow and make money, agency theory is not applicable (Arthurs & Busenitz, 2003). While seemingly true in its traditional application, we dissect a key element of agency theory, moral hazard, to explore how it may impact unicorns differently than more traditional ventures.

Agency theory states that problems will arise when the goals of the owner or principal (VC) no longer align with the agent (entrepreneur), and where the agent may not operate in the best interest of the principal (Eisenhardt, 1989; Jensen & Meckling, 1976) which is widely known as the principal-agent problem (Bendickson, Muldoon, Liguori, & Davis, 2016a). A key element of agency theory is moral hazard. While research in different disciplines defines moral hazard in different ways, we align with the most generalized definition of moral hazard: an agent taking higher than normal risk with the principal's

money. Historically, moral hazard has been seen negatively, providing inefficiencies and unnecessary costs for the principal. While we agree with the negative connotation of moral hazard in traditional settings, we introduce the concept of agreeable moral hazard, providing a new perspective on moral hazard in the unicorn population. Because of the overarching drive of unicorns to disrupt markets, we argue that the investors want the entrepreneurs to take higher than normal risks with their money. The nature of disruption is fraught with uncertainty, and there is no definitive plan for disruption. Without enacting atypical strategies and taking higher than normal risk, the entrepreneur cannot achieve disruption. Thus, we argue that there is a level of agreed upon moral hazard, or agreeable moral hazard occurring in unicorns for goal congruence of disruption to continue.

This piece provides implication to both theory and practice. By introducing the idea of agreeable moral hazard, we extend agency theory beyond its negative implications. Agency may have some benefits in certain settings, specifically with unicorns, and may serve a very useful strategy. This piece also provides new logic to how any firm may be able to achieve disruption. By having principals willing to have agents take higher than normal risks with their money allows a platform for those agents to try to disrupt. If agents cannot take certain actions towards disruption, the outcome of disruption will not occur. The following sections will explore existing thought on agency theory and moral hazard, along with understanding how unicorns differ from other populations of firms. From this, we introduce the concept of agreeable moral hazard and its implications.

LITERATURE REVIEW

Agency Theory

Agency theory describes a problem that arises when one party (the principal) hires another party (the agent) to perform a service in which the agent has decision-making responsibilities (Jensen & Meckling, 1976). The theory operates under the assumptions that both parties in the agency relationship are (1) utility maximizers acting in their own self-interests, (2) actors are boundedly rational, and (3) agents are more risk-averse than principals (Eisenhardt, 1989; Jensen & Meckling, 1976). As a result, the agency problem arises in the relationship when the goals and interests of the agent and principal diverge, when it is challenging for the principal to monitor or check the behavior of the agent, and when the principal and agent's risk preferences differ (Bosse & Phillips, 2016; Eisenhardt, 1989). Agency theorists use a contract as the unit of analysis to describe the relationship between the principal and agent, thus, maximizing the optimal contract is essential to mitigate opportunistic behavior on behalf of the agent.

One facet of the agency problem is moral hazard, which occurs when the agent's actions are self-serving, such as shirking (Gomez-Mejia & Balkin, 1992). Moral hazards are likely to emerge in environments with high information asymmetry and managerial freedom (Gomez-Mejia & Balkin, 1992). Adverse selection, another aspect of the agency problem, refers to a misrepresentation of the agent's abilities (Arthurs & Busenitz, 2003). Moral hazards and adverse selection can emerge as a result of asymmetric information- that is, when one party in the agency relationship possesses knowledge that the other party does not. Accordingly, agency theory suggests the implementation of monitoring devices and incentive

structures to reduce these agency costs (Tosi Jr & Gomez-Mejia, 1989), specifically moral hazard.

Moral Hazard

The term moral hazard was originated from the insurance literature (Rowell & Connelly, 2012; Zeckhauser, 1970), but also became popular in economic probability and decision-making (Dembe & Boden, 2000; Hale, 2009; Holmstrom, 1979). In the insurance literature, moral hazard is said to be present because insurance is perceived as an incentive for people to behave carelessly (Dembe & Boden, 2000). The deposit insurance literature suggests that moral hazard may arise in the banking industry because banks may be more inclined to "gamble" or engage in risk-taking behaviors at a cost to taxpayers (Yilmaz & Muslumov, 2008). In other words, moral hazard occurs when the agent takes higher than normal risk with the principal's money.

This risk has been assumed to only benefit the agent and be to the detriment of the principal. With a negative connotation, moral hazard has been described as hidden actions by agents (Arrow, 1984), unobservable behaviors resulting in consequences that are observable (Mirrlees, 1999). In the organization literature, moral hazard has been viewed through the lens of agency issues surrounding risk and information (Mitnick, 1992). The foundation of this concept is rooted in economic logic, attributing moral hazard and adverse selection to issues with monitoring and incentivizing agent behavior in the principal-agent relationship. Since it is often difficult to verify that the agent is performing in the best interest of the principal, moral hazard can be problematic without the appropriate controls and rewards in place.

Traditional VC literature and Moral Hazard

In pursuit of starting an entrepreneurial venture, funding provided by venture capitalists enables entrepreneurs to benefit by bearing little to no personal risk, with the ability to walk away if the venture is unsuccessful (Murad, 2015). Because the venture capitalist may not be able to monitor or verify how the entrepreneur allocates the funds, and take advantage of the knowledge, moral hazard emerges leaving the venture capitalist unaware of the level of risks taken (Bergemann & Hege, 1998). Additionally, moral hazard unfolds as the entrepreneur could shirk and use the invested capital for personal expenditures (Bergemann & Hege, 1998).

In order to protect their investment, traditional VC literature has identified two strategies for VCs to prevent moral hazard: 1) staged investments and 2) board positions. According to Wang and Zhou (2004, p. 1) "key characteristics in venture capital financing are staging the commitment of capital and preserving the option to abandon the project". To reduce moral hazard, staged investments are used to guide decision makers to produce an advantageous outcome for VCs (Gompers, 1995). Staged financing enables VCs to invest capital at different phases of the project. "Each financing round is usually related to a significant stage in the development process, such as completion of design, pilot production, first profitability results, or the introduction of a second product" (Cornelli & Yosha, 2003, p. 1). Entrepreneurs may occasionally withhold negative information regarding the status of the project to avoid putting the venture's financing at risk. This includes implementing tactics to improve their reputation at a cost to the VC (Gompers, 1995). In order to protect their

investment and reduce moral hazards, VCs monitor the entrepreneur's progress and, if necessary, threaten to terminate funding, (Wang & Zhou, 2004).

Similarly, the board of directors examine risks closely to reduce moral hazard in relation to the use of internal and external resources (Singh & Harianto, 1989). The board's decision-making guides the overall performance of the company (Zahra & Pearce, 1989), and research has shown that board members take a more active role in the strategy-making process of venture-backed firms (Fried, Bruton & Hisrich, 1998). Thus, VCs take a board position in order to monitor and have a say in how their money is spent (Rosenstein, Bruno, Bygrave & Taylor, 1993).

Even with this deep literature on agency issues within the VC realm, it has been argued that agency theory does not always explain topics related to entrepreneurship (Bendickson, Muldoon, Liguori, & Davis, 2016b) such that VCs and entrepreneurs tend to already have aligning goals, and the founders tend to also be principals (Arthurs & Busenitz, 2003). Agency problems can only arise when goals do not align between the two parties. But, does this mean that moral hazard does not occur?

PROPOSITION DEVELOPMENT

Unicorns

Traditionally, VCs look for businesses that can multiply their investment (i.e. 10x), with the logic that they are already proven a market, and with this investment they can scale to reach a probable performance measure that satisfies the investors (Gompers, 1995; Sullivan, 2017). While unicorns may not be void of needing similar logic as a basis, the bigger goal is disruption of a market, which provides a hope that even more money can be made beyond estimates based on historical market conditions. Not unlike the innovation premium that show why certain public firms trade a higher values (Dyer, Gregersen & Christensen, 2011), there is perhaps a disruption premium that VCs are willing to pay to be part of the economic benefit of a paradigm shift in the market. Because of this disruption focus, we argue that VCs and ventures enact nontraditional strategies, such as giving ventures a longer than normal runway to getting to profitability. When profits are nice, but not necessary for a $1 billion company, this sample of ventures may need their own theoretical evaluations.

Why Unicorns Differ

There is very little research on the specifics of unicorns, and most often, they are lumped into venture capital conversations (Bellavitis, Filatotchev, Kamuriwo & Vanacker, 2017; Kenney & Zysman, 2018). While unicorns do utilize venture capital, there are stark differences in these ventures, which is why unicorns are valued so much higher than other venture-backed startups. In fact, an analysis conducted by CB Insights (2018) found that only one percent of startups funded by venture capitalists ever reach unicorn status, further illustrating its distinctiveness from other venture types. Unicorns receive much higher valuations based on the hope that they can be the first to disrupt existing large industries by creating a paradigm shift. It is with this goal of disruption that separate unicorns from other ventures and is how large investors get attracted to the venture. These investors put up the capital in the hopes that their unicorn is the "home run" venture that will create significant wealth (Griffith & Primack, 2015). Thus, both the investors and the venture have goal congruence on disruption.

The intent of disruption can be viewed as a Schumpeterian shock (Schumpeter, 1934, 1942), where unicorns typically add technology in hopes to create a new market, displace existing competitors in an industry, and/or displace existing businesses in many segments by providing a product that consolidates industries. Unicorns tend to couple technology with an innovative business model that removes many of the flaws of the existing market transactions and costs (Chesbrough, 2007, 2010; Zott & Amit, 2007). Most unicorns are leveraging technology to redefine consumer behavior and effect some transformational change. What is more important is that most unicorns are competing in already competitive markets, resulting in disruption of the status quo. For example, companies like Dropbox, Uber, and Zillow provide new ways to do things consumers were already doing - save electronic documents, get a taxi, or buy a house, yet easier with fewer transaction costs. For investors, it is the hope that these ventures become the new market paradigm, which could generate unforeseen wealth for every owner. Perhaps the ultimate goal is create a blue ocean strategy (Kim, 2005), where a venture is able to disrupt many industries at once, making it nearly impossible for incumbents to respond. With this, the principals will get to experience monopolistic-like rents for their investment for an extended period of time.

Next, unicorns differ in long-term orientation. This great hope for tremendous wealth due to disruption includes a willingness from the investors for unicorns to experiment and find their way to a sustainable business model that creates a new market norm. Investors of unicorns expect to give leeway to the ventures if the venture stumbles, as it is expected that changing the paradigm will not be easy. In fact, the larger valuations and investments are there to provide a cover for the venture to survive tough times while it figures out how to make money, and fight incumbents should they try to outspend the new venture. For example, investors of SpaceX understand that they will not see a return until the venture seeks an IPO, which will take several years as the venture builds out the private space exploration industry (Sheetz, 2018). Additionally, with disruption being the key driver and knowing that this could take several years to start paying back dividends, a longer timeframe is also given for revenue and profits.

Profitably as an emphasis also somewhat drastically differs. Because of the long-term orientation and being substantially backed by VCs to arguably be too big to fail, it is expected that unicorns will operate with sizable financial losses for a much more significant amount of time (Kenney & Zysman, 2018). The VC dollars allow these firms to create their technology, the platform, and develop the marketplace that currently does not exist in the existing organizational field (Zietsma & Lawrence, 2010). As seen with the freemium model (Kumar, 2014), the drive is to grow a user base first and a revenue model second. If the venture is able to attract a loyal customer base with a freemium model, as that base grows, the venture will have a more accurate understanding of what those customers may be willing to pay for, or the data from those customers may be even more valuable. For example, prior to achieving unicorn status, For example, Slack, a business software company, attracted thousands of users on a weekly basis. Consequently, the company was able to attract $120 million in financing and reach a valuation of $1 billion (Griffith & Primack, 2015). VC money gives the unicorns deep pockets to survive the transformation from being a peripheral threat to a direct

competitor (Greenwood & Hinings, 1996) while the venture figures out its sustainable business model.

Lastly, the disruptive nature of unicorns is not without its fights (i.e., the effects of trailblazing). Existing companies rarely sit idly by as they get disrupted by a new entrant. With this, existing market leaders will utilize market and governmental forces to protect themselves from disruptive forces. For example, Airbnb's disruption of the hotel industry has resulted in them having to fight legal battles for the right to operate in important markets. Former CEO of Uber, Travis Kalanick, stated "You're changing the way cities work, and that's fundamentally a third rail. We're in a political campaign, and the candidate is Uber and the opponent is an asshole named Taxi" (Swisher, 2014). With being focused on disruption, the venture and its owners are in for the fight to change the status quo, creating an underdog culture that everyone can rally behind to achieve the "impossible". With VCs often sitting on boards, the function of the board of directors to provide independent and balanced guidance may be compromised (Hillman & Dalziel, 2003; Pfeffer, 1973; Wagner III, Stimpert & Fubara, 1998; Westphal & Zajac, 1997; Zahra & Pearce, 1989). To make their investment worth it, principals of unicorns may not only be more agreeable to founders taking nontraditional paths in order to cross the disruption finish line, but also helping them along the way in achieving their audacious missions. For example, one investor of SpaceX told a reporter, "they are not invested first and foremost for financial upside, they've invested for the chance to play a small part in one of the very few private companies that will likely change the course of history" (Sheetz, 2018). This sentiment is not common for all venture-backed firms.

Agreeable Moral Hazard

As stated above, moral hazard is defined as taking higher than normal risk with someone else's money. In most situations, moral hazard is negative so that the principal does not get taken advantage of while the agent reaps the benefits of using someone else's money. However, we propose that principals of unicorns desire some element of moral hazard from the founders in order to find their way to successfully disrupt a market. While there is never a full blank check, founders need a level of autonomy and the ability to experiment to test potentially radical ideas in the market (Dew, Sarasvathy, Read & Wiltbank, 2009; Lumpkin, Cogliser & Schneider, 2009). Without the ability to do enact non-traditional strategies, the unicorn will not be able to take the necessary experimental steps to unearth a disruptive and sustainable business model (Brush, Edelman & Manolova, 2015; Osterwalder & Pigneur, 2010; Smith, Binns & Tushman, 2010; Zott & Amit, 2007). In other words, should normal governance mechanisms take hold, having the principals concerned about preventing moral hazard, the process will encourage traditional thinking and action versus anything that might be paradigm shifting (Fisher, 2012).

Theranos, the now defunct unicorn focused on a revolutionizing the blood diagnostics industry (Carreyrou, 2018), is an example to not only demonstrate that agreeable moral hazard exists, but also shows that there is point where its effects can be detrimental to the principals. Theranos proposed a proprietary single stick method for testing hundreds of medical tests. Their proposed technology and methodology should have allowed them to

offer hundreds of blood tests for a fraction of what traditional testing methods cost. After two years of near universal praise, a report published in October of 2015 by the Wall Street Journal called into question the validity of its tests and kicked off a series of negative stories about the company (Carreyrou, 2015). FDA regulators found deficiencies in Theranos's processes for monitoring quality, vetting suppliers, and handling customer complaints (2015).

When asked about these issues, Theranos founder Elizabeth Holmes frames them as a communication failure. She says that the company has been so focused on building the technology that they have failed to communicate important truths about phlebotomy and the blood diagnostics industry. For instance, blood tests are not subject to FDA regulation and that there is no official arbiter of validity or methodologies for new technologies. In essence, Elizabeth's argument is that her company is blazing a trail. Further, she argues that just because regulators have not caught up yet, it does not mean their tests are invalid.

With this trailblazing argument, the investors rallied behind Theranos and even more investors came on board to help the company disrupt the market. Elizabeth Holmes fraudulently sold the impossible vision to investors that had very little knowledge in this industry. It has been reported that the investors asked very few questions to validate the venture's claims, and solely focused on being part of this venture that could "change the game" in healthcare (McKenna, 2018). These investors wanted Thernos to take higher than normal risk with their money in the hope that much greater wealth would be created. However, Elizabeth Holmes took advantage of agreeable moral hazard, resulting in a loss of nearly $700 million (McKenna, 2018).

The Theranos example shows that agreeable moral hazard has a limit and is dependent on the intentions of the founders. However, mature unicorns, such as Airbnb, Uber, or SpaceX, have shown the results and benefits of agreeable moral hazard when not taken advantage of. Collectively, these three ventures are now worth roughly $123 billion, and are anticipated to keep growing as they continue their disruption of markets and sustain their revenue streams. While Elizabeth Holmes crossed the line to take advantage of investors, arguably, Elon Musk, founder of Tesla and SpaceX, has found a way to optimize agreeable moral hazard. Investors of SpaceX want Musk to be taking higher than normal risks and pushing ideas to their limit (De Lea, 2018). Musk and his investors have found agreeable moral hazard, which has created many benefits for all involved. Thus, we propose:

Proposition 1: Principals of unicorn or soon-to-be unicorn ventures (a) desire and (b) aid those ventures to take higher than normal risks (c) to a certain point (inverted-U relationship) with their investments to disrupt markets.

Proposition 2: The above relationships (i.e. agreeable moral hazard) do not occur in traditional venture-backed (non-unicorn) startups.

IMPLICATIONS AND CONCLUSION

This article introduces the concept of agreeable moral hazard, while also subsequently demonstrating the need for more research focused specifically on unicorns. Agreeable moral hazard provides a pathway for scholarship to understand the relationship between principals

and agents in a setting focused on disruption. Because there are not incongruent goals on disruption between the two, we propose that opposite forces occur from the traditional principal-agent costs, where principals expect agents to take higher than normal risks with their money to create a paradigm shift in existing markets. This agreeable moral hazard is required for founders to test new ideas in the market. Additionally, the VCs that have invested high dollar amounts into the unicorns need these ventures to successfully create a paradigm shift in the markets to make their potentially inflated investment worth the gamble. Without agreeable moral hazard, traditional governance takes hold, and will most likely not result in moon shot disruption.

This also shows that these moon-shot investments are thought about differently than other venture-backed firms. This piece points out the fallacy in lumping the unicorns into all VC discussions. Unicorns are very different from traditional venture-backed firms based on their goals and strategies. We are not the first to explore issues within the agency theory framework that differ based on firm size (e.g., monitoring; Bendickson, Davis, Cowden, & Ligouri, 2015. However, by exploring the concept of agreeable moral hazard and the differences from traditional agency theory, this article points out that unicorns are a unique population to test existing theory. Just as the Chinese setting provided the outlet to test existing theory in that unexplored setting (e.g. Tang, Tang & Cowden, 2017), unicorns provide a similar population to contradict, extend, or create theory.

Another implication of this article is that agreeable moral hazard may be a necessary, but not sufficient element for any organization trying to disrupt a market. One could argue that in any organization that is primarily focused on reducing agency costs will never desire agreeable moral hazard. If the agents cannot ever experiment, disruption will rarely occur (Fisher, 2012).

Argued from a different perspective, most organizational governance structures form a board to protect the principals investments and prevent moral hazard through three primary roles (Singh & Harianto, 1989; Zahra & Pearce, 1989). The three major roles boards play are service, strategy and control (Zahra & Pearce, 1989). The board's control role is to ensure that the agents are performing in a manner that will protect the shareholders' interest (Chapin, 1986). How this is setup in the organization has been shown to influence the type of R&D pursued by the organization (Baysinger, Kosnik & Turk, 1991). Ideas that are more radical may never reach the board, as the firm may self-filter out nontraditional ideas. It is extremely difficult to estimate market demand when considering disruption. With this creates problems for marketing, finance, and legal departments to green light the project to go any further than just an idea. Structurally speaking, it would appear to be difficult to pursue disruption without agreeable moral hazard.

Our paper is not without limitations yet some of which may lead to fruitful areas of future research. First, while we present our ideas for propositions theoretically, we did not conduct a study to test these. Scholars could look to empirically test these ideas by collecting data on risk-taking at unicorns (and soon to be unicorns) to better understand decision making at these firms as it pertains to risk. Then, by collecting preferences for risk in smaller startups (i.e., VC backed firms that are not of or nearing unicorn status), comparisons and conclusions could be further explained.

Secondly, in practice, it can be observed that certain public companies seem to be responding to market contingencies differently than others. For instance, how can Amazon not only think about, but quickly execute on more radical ideas than the world leader Wal-Mart? Or, how can Google and Facebook span into other realms? While path dependency plays a role (Greener, 2002; Sydow, Schreyoff & Koch, 2009; Vergne & Durand, 2010), future research can further expand upon the practical implications of agreeable moral hazard. For instance, what role do lawyers and their power in the firm play in disruption and agreeable moral hazard acceptance? Is agreeable moral hazard beneficial?

From a theoretical standpoint, more must be understood about agreeable moral hazard. What are the boundary conditions of agreeable moral hazard? What environments create agreeable moral hazard, and what elements make it a positive or negative for the firm? How does a firm reach agreeable moral hazard and how is it defined within firms? What role does trust play in this relationship, and what individual-level variables matter, as in the Theranos example? How might agreeable moral hazard align or differ with the Christensen's Theory of Disruption (2006) or the effectuation literature (Sarasvathy, 2001)? In what context might agency be beneficial? By developing this idea we hope to launch a starting point for further research and discussion as there is certainly more to unpack in regards to agreeable moral hazard.

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DRAFT

Staffing of Small Nonprofit Organizations: A Model for Retaining Employees

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ABSTRACT

Small nonprofit organizations (SNPOs) operate similarly to for-profit businesses, with a mission, values, and dependable employees. A factor that sets SNPOs apart from for-profit organizations is the ability to provide high wages and benefits to its employees. Nonprofits lack this ability, which can result in staffing challenges and high turnover rates. This study explores the different ways these types of organizations attract employees, if any type of incentives or benefits are offered, and what can help retain employees once they are hired. This information can provide SNPOs with a better understanding of the industry and best practices.

Keywords**:** non-profit organizations, employee retention, employee commitment, turnover

INTRODUCTION

Small nonprofit organizations (SNPOs) are a type of business model widely known with entities providing services to clients and partners around the world. With this in mind, a common misconception about these types of organizations exists: many people assume that all nonprofits are mainly staffed by volunteers, though this is not the case. Most nonprofits are actually staffed by employees and managers that facilitate daily operations. Another commonly believed misconception is that nonprofits do not actually retain any profits, they just raise money and give it to the larger goals they are pursuing. Again, this is not true.

One of the bigger problems nonprofits face is attracting and retaining employees (Jones, 2015). Though some do receive help from volunteers at times, they still need qualified employees to help maintain operations in the organization. To address this problem, we are going to be looking to find what helps attract employees to work for a SNPO. Since these organizations are thought by many to earn no profits, common questions include why would someone want to work for this type of organization and how do nonprofits attract employees?

Aside from attracting employees, another staffing issue that nonprofits tend to face is retaining the employees once they find them. More specifically, can nonprofits offer competitive pay and benefits in the same aspect as a for-profit business? We are interested in finding what nonprofits are able to offer that can help retain employees and yield lower turnover rates. Nonprofits are known to give back to the community, but at the same time, depend on the community for assistance, which presents a unique situation. As such, volunteers are essential to the organizations, but it is the employees that are the real backbone of the operation (Nelson, 2018).

Research conducted by Anne Preston has concluded that some employees in nonprofits are willing to work for reduced wages if they are working for an organization that is generating a positive social outlook (Preston, 1989). This can be classified as an employee donating their time to help the cause of the organization (Jones, 2015). This type of employment is not volunteerism, which is defined as “long-term, planned, prosocial behaviors that benefit strangers and occur within an organizational setting” (Penner, 2002: 448). Instead, it is simply working for a smaller wage than they would earn with a for-profit business. It is also important to note that employees of SNPOs often work fewer hours per week than employees in the for profit sector. This could be either a bonus or consequence for the employee, or it could be the determining factor if the employee chooses to stay with the organization.

Other studies found that it is in the best interest of the organization to promote a working environment that relates to the beliefs and values of the organization (Emanuele and Higgins, 2000).

This may seem like common sense and leads to the question: why would the organization not promote an environment that follows its beliefs? The answer is that these studies are more about promoting an effective corporate culture to reflect the values of the organization (Emanuele and Higgins, 2000). This potentially illustrates the concept of employees "donating" their wages for the greater cause of the organization. If employees have a pleasant work environment and culture, they are typically more willing to accept the lower wages (Robineau, Ohana, & Swaton, 2015). Employees may view this concept as donating their personal value. Some argue this can be contrasting to the fact that volunteers also donate their value without any wages in return (Preston, 1989; Weisbrod, 1983). However, the difference is that volunteers are more likely to be temporary, though this can also be true of employees. However, when an employee is first hired, they are generally hired with the intention of being with the organization for an extended period of time.

While there are multiple research studies that have been conducted, we still want to look a little further into what SNPOs could do to better attract and retain employees. Questions include: Are people looking for more pay or more/better benefits? What type of benefits do people find adequate? Is the right way to attract employees even related to pay or benefits? There are many questions that can be asked and researched regarding staffing in SNPOs. As with many topics, this is an area that can be studied with continuous research and that can yield different results each ongoing year, with new advancements and ways of conducting valuable business operations.

We are going to look further into what attracts potential employees to want to work for a SNPO and what makes them want to stay with the organization. More specifically, are decisions based on personal values or wages and incentives? We will be studying to see if wages and incentives can help motivate an employee to stay with the organization, or if lack thereof could produce higher turnover rates. Another theory to be considered is: could the possibility of receiving less hours as a form of lower pay be a positive attraction to some potential employees?

EMPLOYEE COMMITMENT

Employees and employers have a complex relationship that has been continually proven to impact the behavior and mindset of those individuals (Cole & Bunch, 2006). Since employee commitment is a component of motivation, motivation can be described what directly causes employees to complete the task at hand (Meyer, Becker, & Vandenberghe, 2004). Employee commitment is in essence what causes an individual to carry out an activity which leads to completing a desired end goal or reaching a target (Meyer & Herscovitch, 2001). Employee commitment also involves the psychological aspects that causes them to form an attachment to their employer or organization (Allen & Meyer, 1990; O'Reilly & Chatman, 1986).

An individual or employee may also have many different facets of motivation allowing for various types of commitment in relation to the goals within an organization (Meyer et al., 2004). Employee commitment is generally stronger when the individuals in an organization believe that they are being supported by the organization and the organization itself is committed to the individuals as well (Whitener, 2001).

Employee commitment within an organization can have an impact on job performance (Becker, Billings, Eveleth, & Gilbert, 1996). More specifically, employee commitment to supervisors has a direct effect on job performance and employees that are more committed to supervisors may exhibit more positive outcomes in terms of work performance (Becker et al., 1996). Another important aspect that can lead to commitment is an individual's internal bond to an organization. Klein, Molloy and Brinsfield (2012) note that the bonds or psychological attachments to the workplace that employees experience can be situational. For example, an employee that feels bonded to their organization may experience a different type of bond than an employee that is bonded to a work team and so on.

This is important for organizations and managers to realize as it can allow them to understand what drives employee commitment in different areas and can also allow them to better influence and facilitate employee commitment within organizations (Klein et al., 2012). Employers must also understand that the way an individual perceives an existing bond is of the same importance as the

process in which the bond was created with the individual (Klein et al., 2012). Understanding the perception, forming and continuing malleability of bonds can be useful for employers and managers in terms of motivating individuals effectively, which can further lead to commitment (Klein et al., 2012). To enhance commitment at the individual level, Becker et al. (1996) suggest that motivating individuals in terms of supervisor's goals and values through methods such as team building, socialization, and so on can influences job performance more than focusing on individual's commitment to the organization. However, Cole and Bruch (2006) note that the influence that an individual's level of commitment to an organization can influence an employee's turnover intention. By considering what outcomes are expected of employees, organizations and managers can work backwards in determining what types of commitment will lead to desired outcomes (Meyer et al., 2004).

Employee commitment is especially important to consider in SNPO in which the central mission of the nonprofit can serve as a means of attracting and retaining employees (Brown & Yoshioka, 2003). If mission of a SNPO is utilized correctly, it can instill a sense of commitment within employees and keep them on track to fulfilling the purpose of the organization (Brown & Yoshioka, 2003). Employee commitment can also stem from organizations that encourage group loyalty and maintain a clear and direct focus on core values (Jaskyte, 2004). Non-profit organizations are unique in that employee commitment must often stem from non-financial areas, as nonprofits are generally more limited in terms of financial methods of increasing employee motivation and commitment (Alatrista & Arrowsmith, 2004). As such, the limited financial means within a SNPO can have a negative effect on employee commitment (Alatrista & Arrowsmith, 2004; Ridder & McCandless, 2010). Turner Parish, Cadwaller and Busch (2008) note in their study using data collected from a SNPO that experiencing role autonomy can also lead employees to greatly commit within an organization and that organizations should continually monitor and evaluate, using both formal and informal methods, how employees currently perceive relationships in the organization. If managers continually track relationships in terms of employee opinions and feedback regarding relationships, they can learn how to effectively foster and maintain successful relationships which can lead to greater employee satisfaction and commitment (Turner Parish et al., 2008) and ideally a better staff SNPOs.

NONPROFIT ORGANIZATIONS

A SNPO is an organization whose main purpose is to pursue a goal with no intention of creating wealth to distribute to leaders or shareholders. While a nonprofit has the potential and ability to earn revenues, any surplus is used to achieve or further its purpose or goals, rather than being distributed as payment to members or other persons within the organization (Green & Kaine, 2013). Froelich (2000) noted that though nonprofits can sometimes be viewed as less innovative than their for-profit counterparts, they may have a similar competitive potential and should not be underestimated. Being designated as a nonprofit does not necessarily mean the organization does not intend to make a profit; it simply implies there is no owner of the organization or shareholders. All SNPOs are governed by a board of directors and many also have paid staff such as program-specific employees and managers to assist with day-to-day operations. Nonprofit designation also requires the organization to serve the public through offering goods or services. As with any business, the success of a SNPO relies heavily upon its employees, management, operations, and volunteers.

Employees play a key role in the success of any organization. Though many factors are at work in a successful operation, some key points include values, purpose, and motivation to encourage employees, as well as the culture of the organization. The management of the organization must use and manipulate these factors in such a way to maintain the daily operations of the business in hopes of having an optimal employee mix. By motivating workers and generating positive work culture and values, the organization can operate smoothly and provide the best services to the public (Jones, 2015). In the following sections we present antecedents to retaining employee (or turning them over) in SNPOs. Please see Figure 1 for an overview.

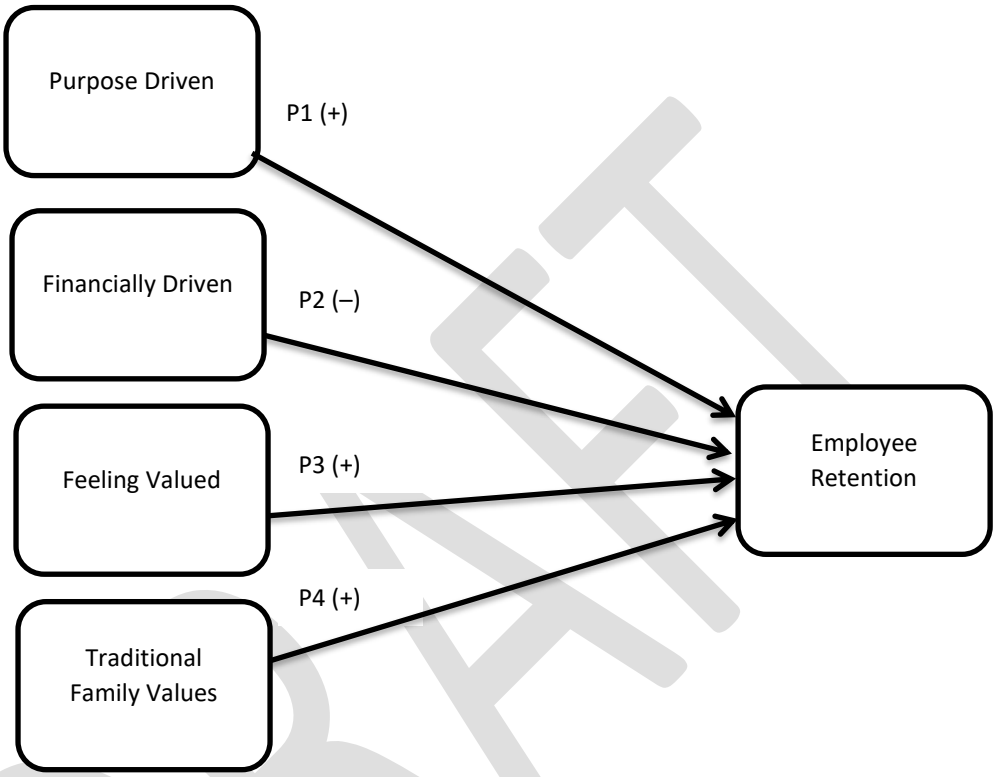

Figure 1. A Model of Small Non-Profit Employee Retention

ORGANIZATION PURPOSE, MISSION & VALUES

When it comes to the performance of an organization, the employees may have more of an influence than the organization itself. Employees can be recognized as one of the most significant assets to any organization (Mesch, 2010). Identifying their own values with that of the organization, may give employees more of a purpose, increase organizational commitment, and create goals to work towards. That purpose is to drive the organization in the proper direction to ensure they attain their goals and mission.

Employees that tend to be attracted to SNPOs are usually motivated in different ways as compared to employees in a for-profit environment. SNPOs are known to have lower wages, therefore, pay is not usually a main form of motivation (Robineau, Ohana, & Swaton, 2015). When employees are purpose driven to assist the organization in reaching goals, it helps to prove that they have high expectations of themselves. Employees in SNPOs are also generally working towards attaining a value of organizational professionalism as Robineau, Ohana, and Swaton (2015) indicate that professionalism can sometimes be lacking in the nonprofit sector. Today's employees are exceedingly different than in the past years and some could say they are aiming to become nonprofit

leaders. With the increased availability of education and research, today's generation of future SNPO leaders can more easily find the necessary professional skills required to add value to the organizations. As such, strategic thinking, decision making, professional management, and financial management are all aspects of work that skilled employees can use to add value and purpose to an organization to help them focus on better results for the future (Mesch, 2010). If any employee has taken their own time to educate themselves on these professional skills, they are likely purpose driven and determined to instill their values within the SNPO.

This information proposes that any business, SNPO or for-profit venture, should have a strategic plan in place to drive decision making, determine resource allocation and help maintain a successful organization (Mara, 2000). This strategic plan maps out where the organization is headed and lays out the future direction of the organization. However, SNPOs may struggle with the strategic planning process due to their more limited resources as compared to larger counterparts (Mara, 2000). The first step in mapping out the strategic plan requires developing a vision statement charting the organization's long-term direction, a mission statement that will describe the organization's purpose, and a set of core values that can be used to guide the organization's pursuit of the vision and mission statements. While the vision describes the organization's future outlook, the mission describes the organization's present business and purpose. The mission tells who the organization is, what they do, and why they exist. An organization's values can be described as "the beliefs, traits, and behavioral norms that company personnel are expected to display in conducting the company's business and pursuing its strategic vision and mission" (Thompson, Peteraf, Gamble, Strickland, 2014, p. 21).

SNPOs can be considered to have a value-expressive nature about them. As with any organization, SNPOs typically have a vision, mission, and values. The mission of a nonprofit usually embodies and reflects its values as nonprofits tend to be held to higher ethical standards (Green & Kaine, 2013). A common type of characterization for this concept is "mission versus margin", meaning the organization is more focused on following their mission rather than generating a high profit margin. The mission and values of these organizations tend to align with the purpose they are promoting, which is often a social service cause. With their values holding such a high influence, SNPOs are interpreted as being more humane and sensitive than government and for-profit organizations (Jeavons, 1992; Kramer, 1987). Not only do the mission and values have an impact on the inside and outside interpretations of the organization, but decision making can also have an influence. Research conducted by Peter F. Drucker found that the quality of decisions made in nonprofits plays a key role in determining if the organization is being run seriously, such that, its mission and values are meaningful to the public and not just in the public relations aspect (Drucker, 1990).

As with any organization, employees live and operate by their own personal values. If a nonprofit organization's values are similar to and align with a potential employee's values, this could help attract talent to the organization. A sense of belonging is important in the organization, or that they are able to have their own identity contributing to the needs of the organization. If the organization's values are similar to the potential employee's, there is a greater chance they will want to work for the organization. It can give one a sense of helping the organization to achieve their goals, while also achieving their own personal goals. Therefore, we propose:

Proposition 1: Purpose driven individuals are more likely to be retained at SNPOs.

FINANCIAL MOTIVATION

A big factor for one to consider working for a nonprofit organization is that the wages are commonly lower than if an individual worked in a for-profit venture (Jones, 2015). Preston (1999) believes that some employees are accepting of this wage differential, because to them, they are donating value to the organization. Some employees may be more acceptable of lower wages because they consider the job to be a point of entry when it comes to entering the labor market. Having experience at a nonprofit organization may positively influence an individual's resume, as some view work experience in this sector as a resume enhancer. Another accepting factor by new employees,

especially fresh out of school, is that they may have to start by making lower wages during training before eventually moving up to higher positions (Ehrenberg and Smith, 1996). Though, if employees are simply using the nonprofit job as a starting point for their career or to build up their resume, this could mean more employee turnover for the organization.

Employees could be more accepting of lower wages if they believe that by working hard and providing value to the organization, they may later be promoted and receive an increase in compensation. However, promotions may be less likely to occur in the nonprofit industry, which is illustrated by the fact that many SNPOs are flat when it comes to the organizational structure, meaning there is not much room to move up to higher positions. While promotions are possible in some organizations, due to the flatter hierarchy, promotions happen less often in the nonprofit sector (Hansmann, 1996). Along with the structure of the organization, if employment growth is low, there can be both low and high rates of turnover associated with the decreased potential for promotions. For example, if there are lower turnover rates, promotions are more infrequent due to the lack of vacancies that need to be filled. In contrast, with higher turnover rates, the organization may not promote recently hired employees due to their inexperience. Both instances can result in an even greater number of turnovers due to lack of promotion and the possibility of earning higher wages (Devaro and Brookshire, 2007). Turnover events also have the potential to create a toxic working environment as employees are typically less protected from organizational change (Stewart, 2016). However, organizational change in small nonprofits also has the potential to be exceptionally positive to a greater degree as well (Stewart, 2016).

Proposition 2: Financially driven individuals are less likely to be retained at SNPOs.

VALUE

Employees in nonprofit organizations are often attracted to the idea of being able to work toward a meaningful social mission. In other words, the mission of the organization has the intention to provide services to people, such as working in hospitals, with the elderly, or with children. These services are sometimes the reason why employees can be more accepting of lower wages because in return, they feel they can contribute to the mission of the organization. These mission driven values, considered a positive social mission, can serve as a form of intrinsic motivation to the employee if they believe it fits within their own value system (Devaro and Brookshire, 2007). The idea of a positive social mission tends to be higher in the nonprofit sector than in for-profit ventures as the concept of creating a social good is generally the purpose of operations in a nonprofit (McDonald, 2007).

Employees that are attracted to intrinsic motivation rather than alternative incentives, such as promotions or raises, can at times be more dedicated and committed workers because they are working towards improving the organization. This type of motivation does not offer rewards, rather, it offers a sense of value. Intrinsic motivation can be defined as the effort that employees put forth in the absence of external rewards (Devaro and Brookshire, 2007). This motivation offers a greater significance and increases the degree of meaningfulness of the employee's work. In turn, the increased significance yields a higher work performance from the employee (Hackman and Oldham, 1980). These findings help us propose:

Proposition 3: Individuals feeling valued are more likely to be retained at SNPOs.

FAMILY RELATED INCENTIVES & VALUES

Low wages are known to be associated with working for a SNPO. Another aspect of employment that employees tend to miss out on are benefits, such as health insurance and retirement fund contributions. However, SNPOs are often known to have more family sensitive policies. This can help attract employees that would prefer to have flextime or a part-time work schedule. A study

conducted by Fernandez reveals that a determining factor in the ability to attract and retain loyal and productive employees stems from family sensitive fringe benefits and personnel policies (Fernandez, 1990). While there are multiple types of work arrangements, such as compressed workweeks, phased retirements, and telecommuting, the most common, and preferred, arrangements are part-time work, reduced workweek, and flextime. Flextime is found to be one of the most available throughout organizations (Hohl, 1996). This gives the employees the ability to make their own schedule, as long as they fulfill the required amount of hours to be worked. This is found to be helpful when families may not have access to affordable childcare or both parents work alternating hours. While many SNPOs are not able to offer benefits, those that can tend to attract individuals with spouses working in other employment types. Considering this, it is possible that some of the individuals working in the nonprofit industry receive benefits from their spouse's jobs, therefore allowing them to be more acceptable of working for an organization without them.

Another common belief is that SNPOs tend to be more responsive to the family needs of employees than typical for-profit businesses. Since a majority of SNPOs are pursuing a purpose with good intentions, they tend to be held to higher expectations and standards, such as fairness. This can extend further beyond their organizational values. SNPOs are expected to not only maintain, but also promote behaviors that are caring, humane, and progressive towards their set of values (Jeavons, 1992). In conclusion, we propose:

Proposition 4: Family related incentives and values will enhance retention at SNPOs.

DISCUSSION

As with any business, SNPOs need valuable employees to achieve their mission and facilitate daily operations. Nonprofits can, at times, find it difficult to attract and retain employees when providing lower wages than a for-profit business. Prior research has found that employees that feel the organization's values relate to their own can be more attracted to work for a nonprofit. It can give employees a sense of purpose and value to help the organization achieve their goals. It can even make employees feel like they are contributing by "donating wages" as a way of accepting lower wages than they would find elsewhere.

Aside from giving the employee a sense of value added to the organization, we wanted to determine the other ways SNPOs can attract and retain their employees and also if SNPOs have the capability to offer benefits, incentives, or promotions. We wanted to know not only the key factors to attracting potential employees to work for a SNPO, but also what makes them want to continue working for the organization.

Much of the prior research conducted focused more on wages and if that was a determining factor of pursuing an organization for those applying to nonprofits. We wanted to look further than just wages, for example, we wanted to know if incentives were linked to an employee staying longer with the organization. While we did find that many employees of SNPOs are not able to receive health or other benefits due to lack of resources and budgetary constraints, we did find that some employees prefer other types of incentives. We found that having the ability to control their own hours and spend more time with family is preferred to some individuals, especially if they are already eligible to receive benefits from their spouse's place of employment.

Unfortunately, we also found that many employees in SNPOs will not receive any type of promotion during their employment with the organization. This is affected by both low and high rates of turnover. Another main factor is that many nonprofits have a flat organization structure; therefore, there are not many opportunities for promotion. Lack of promotion, along with fewer opportunities for pay raises could be a determining factor impacting employee satisfaction and retention. If the employees are seeking higher financial rewards, it could result in high turnover rates.

While we were able to find many articles and past studies that concentrated on the questions being studied, there were a few limitations. First, the majority of the studies were conducted many years ago, and therefore could be considered out of date. We were able to find research dated in the early to mid-2000s, but many came from the late 1980s to 1990s. This could possibly mean that the

topic of staffing in SNPOs is under-researched and not considered to be a topic of as high an interest as it was in past decades. Another limitation and concern is that much of the research conducted yielded the same results. Though this is not technically a bad thing, it simply limits having a variety of data for comparison.

The topic of staffing a nonprofit organization is one that can be studied continuously. Though our questions have been mostly answered, these answers can be completely different five years from now. There may never be a definite answer even to what will attract and retain employees in a SNPO. Now, employees may be happy with the option of having flextime or a shorter work week, but that may not be the case in the years to come. Years from now, hopefully, as more people study the topic, they will have updated information and results to compare to ours. This topic should likely be continuously studied to provide the most accurate information possible in the future.

In all, we have learned some key factors that play into what motivates a potential employee want to work for a SNPO and what will make them want to continue being employed as well. To some, working for an organization that shares the same values that they believe and follow attracts them. Not only do the organizational values attract employees, but also the belief that they actually add value to the organization, can give them a sense of purpose and drive them to perform better on the job. Others are attracted to the idea of being able to have flexible schedules allowing them to spend more time with their families. Higher wages and benefits may not be needed if they are able to receive these incentives from their spouse's place of employment. Still, while values and flexible hours may attract some, lack of benefits, promotions, and raises can cause higher turnover rates for financially motivated employees. Working for a nonprofit organization is not for everyone, but those that choose to, are giving to a greater cause than they may possibly realize.

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DRAFT

LaunchIt: A Case Study of Entrepreneurship Education

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Abstract

This study evaluates the impact of a Midwestern University's 10-week entrepreneurship training program on participants' attitudes, knowledge gained, and level of satisfaction with the course. We used a pre/post test quasi experimental design and collected data from 43 participants in the Spring of 2019. The results showed that attendees improved their knowledge of key components of venture formation, had a positive effect on their perceived behavior control, and overall respondents were satisfied with the program. The findings contribute to the literature on entrepreneurship education.

Keywords: Entrepreneurship training programs; Entrepreneurial education; Perceived behavioral control (PBC)

Introduction

Small businesses have an important role in the economy as they create jobs and drive economic growth for the country. Furthermore, business ownership can empower those who face obstacles in obtaining employment or whose career advancement has been stymied in the traditional work force. Those facing potential discrimination include immigrants, veterans, women, and individuals with disabilities. Small businesses, defined by the Small Business Administration (SBA) as firms with 500 or fewer employees, often begin with an entrepreneur who has a compelling idea or innovation. The germination of that new business idea with the subsequent creation of a small company is what forms the foundation of 'The American Dream.'

A prospective or nascent entrepreneur, however, can be easily inundated by the sheer volume of advice offered in the popular press for how to go to market. A quick Google search for 'starting a business' led to 9,380,000,000 results, and while less voluminous when the search is narrowed to 'advice for starting a business,' the entrepreneur is still offered 1,010,000,000 options to scan. Among the plethora of tips from Forbes alone are articles such as: *How to Fund Your Start-up Business Idea, 10 Tips for Starting a Small Business That You Haven't Heard Before*, to *How Can I start a Business with Very Little Capital.*

The reality for startup success will also sober even the most optimistic individual. According to the SBA, 30% of new businesses fail during the first two years of being open, 50% during the first five years, and 66% during the first 10 years. The individual with an entrepreneurial vision, however, does not have to try to face these odds alone without the necessary knowledge and skills for launching a business. Whether it is to help alleviate the abysmal failure rate of startups, or capitalize on popular shows such as *Shark Tank, Beyond the Tank*, or *Dragon's Den*, colleges and universities are major players in this entrepreneurship education ecosystem. Many higher education institutions now offer entrepreneurship streams in their undergraduate and graduate curricula (Brush, 2013; Lyons & Zhang, 2018). In 2019, for the 13th year, The Princeton Review ranked more than 300 schools with entrepreneurship studies, providing a list of the Top 25 undergraduate and graduate programs.

Universities have also expanded beyond the traditional graduate and undergraduate framework. Today there are numerous entrepreneurship boot camps, workshops, courses and seminars conducted at well-known universities such as Wharton (UPenn), Harvard, MIT, and Stanford. At their core, these programs are designed to equip individuals with knowledge and skills

for launching and operating business ventures (Kerrick, Cumberland, & Choi, 2016; Martinez, Levie, Kelley, Saemundsson, & Schott, 2010).

Given the exponential growth of entrepreneurship programs and courses, it is not surprising that extensive scholarly research has been undertaken to understand whether entrepreneurship comprises skills one is born with, or whether those skills can be taught. At the extreme are those theorists who favor the "genetic" trait argument (Nicolaou, Shane, Cherkas, Hunkin, & Spector, 2008; Shane, 2009; Shane, Nicolaou, Cherkas, & Spektor, 2010) and would suggest entrepreneurship training is a waste of time and money. Data from research, however, has indicated positive impact from entrepreneurial education. Martin, McNally, and Kay's (2013) meta-analytic study of 39 entrepreneurship programs found that entrepreneurship training is effective in promoting cognitive and motivational outcomes resulting in more start-ups and higher performance.

Statement of the problem/research questions

As the debates about whether entrepreneurship programs assist budding entrepreneurs are likely to continue, it is incumbent on academic universities that espouse the importance of research to assess whether any programs they offer are delivering on key outcomes. From this vantage point, we analyze the impact of a 10-week entrepreneurship training program (LaunchIt) that is being offered by a Midwestern university. The key questions driving this study are:

- Does the LaunchIt Program promote reflective thinking?
- Does this course positively improve an individual's perceived behavioral control (PBC) for becoming an entrepreneur?
- Does the course increase the participant's intention to start a venture?
- Does the course have an impact on attendees' knowledge about venture creation?
- How do the participants assess the course overall?

In the next section, we outline our rationale for investigating the effects of the program on reflection, PBC, and entrepreneurial intent within our literature review of these constructs. We then provide details on the training program, followed by our data collection methodology, and findings from the data. Finally, we discuss the results and offer concluding remarks, respectively.

Literature Review

Entrepreneurship has long been touted as a challenging subject to teach and evaluate because the outcomes of instruction are difficult to assess (Lindh, 2017). As such, prior research in entrepreneurship pedagogy has often taken the lens of the teacher or perspectives on teaching entrepreneurship. However, a gradual shift is occurring in the literature in which researchers are examining the value and effectiveness of entrepreneurship education programs from the lens of the student (Kirkwood, Dwyer, & Gray, 2014; Testa & Frascheri, 2015). For example, Lundmark, Tayar, Qin, and Bilsland (2019) determined that reflection enhances perceived behavioral control for entrepreneurial activities.

Given that reflection has emerged as a key component of the development of entrepreneurial capabilities and intentions (Lindh, 2017; Lundmark et al., 2019), effective pedagogy in entrepreneurship programs will need to engage students in not only learning concepts and practices, but also reflecting on those concepts with regard to their own ventures and the viability thereof (Lundmark et al., 2019; Neck & Greene, 2011).

Previous research on reflection is often based on theoretical reasoning (Lindh, 2017; Neck & Greene, 2011) and few researchers empirically examine reflection and entrepreneurial capabilities with regards to the effectiveness of entrepreneurship programs (Lundmark et al., 2019). In the sections that follow, we further examine the constructs of reflection, perceived behavioral control, and entrepreneurial intentions as they relate to the assessment of effectiveness of the LaunchIt Program.

Reflection

Research suggests that experience through reflection plays a crucial role in entrepreneurial learning (Cope & Watts, 2000; Neck & Greene, 2011; Politis, 2005; Lundmark et al., 2019), given that reflection encompasses "validity testing," (Mezirow, 1991, p. 101). Since to remain viable entrepreneurs are consistently required to examine the validity of their business concepts, target markets, etc., reflection is a crucial entrepreneurial skill. Experience is argued to serve "as the touchstone for reflection," (Kember et al., 2000, p. 385), particularly in uncertain arenas that require intense problem-solving, such as entrepreneurship (Neck & Greene, 2011). As such, reflection has been heralded as a critical component of entrepreneurship pedagogy (Neck & Greene, 2011).

Importantly, there are distinctions in the literature among types of reflection: habitual action, understanding, reflection, and critical reflection (Kember et al., 2000). Habitual action reflects something an individual has learned before and that through repetition can be performed without little thought or concentration. In the entrepreneurship setting, this may be an activity that has been navigated several times (i.e., delivery, customer, procurement, etc.), which an entrepreneur can handle as routine (Kember et al., 2000). Understanding is what Mezirow (1991) classifies as thoughtful action. In this case, learning occurs within pre-existing perspectives, and represents the typical reading-lecture scenario in the university setting. Students would interpret information within their context, using existing knowledge schema to guide their comprehension (Kember et al., 2000), such as with content-based questions. "Reflective learning is the process of internally examining and exploring an issue of concern, triggered by an experience…" (Boyd and Fales, 1983, p. 100). Such practice requires one to assess his/her experiences and may lead to new or higher-level understanding (Kember et al., 2000). Critical reflection deals with a more intense level of reflection, which may be thought of as the type of reflective experiences that "transform our meaning framework," or alter our philosophies of how the world works (Kember et al., 2000, p. 385).

Perceived Behavioral Control

Perceived behavioral control (PBC), much like self-efficacy (Bandura, 1991; Chen, Greene, & Crick, 1998; McGee, Peterson, Mueller, & Sequeira, 2009), generally represents the level to which an individual feels confident in undertaking a given behavior. However, perceived behavioral control is more specifically the "perceived ***control*** over performance of a behavior," (Ajzen, 2002, p. 668). In prior research, PBC has been found to hold a substantive association with entrepreneurial intent (Schlaegel & Koenig, 2014) and researchers have determined that PBC predicts engagement in behaviors as a form of perceived capacity (Ajzen, 2005; Ajzen & Cote, 2008), particularly if the behavior is difficult to undertake (Madden, Ellen, & Ajzen, 1992), like starting a business. Furthermore, PBC has been determined to significantly predict entrepreneurial behavior, even when indirect effects of entrepreneurial intentions were accounted for, in a recent longitudinal study (Kautonen, van Gelderen, & Fink, 2015).

In entrepreneurial education programs, long-term measurable outcomes are often difficult to determine (Lundmark et al., 2019). As such, measuring items that encompass knowledge, skills, and abilities (i.e., capability) are critical in determining the effectiveness of entrepreneurship education efforts, particularly in programs with shorter formats. Prior research in this domain suggests PBC can serve as an effective proxy measure for the acquisition of entrepreneurial capabilities and recently has

been shown to improve with enhanced incorporation of reflection in entrepreneurship education at the university level (Lundmark et al., 2019).

Intent to Start a Business

As mentioned previously, outcome behaviors from entrepreneurship courses and programs are difficult to assess. As a result, researchers have primarily focused on entrepreneurial intentions to assess effective programming (e.g., Engle et al., 2010; Fayolle & Gailly, 2015; Zhang, Duysters, & Cloodt, 2014) and generally a positive relationship has been found to exist between entrepreneurship education and intent (Fayolle & Gailly, 2015).

The theory of planned behavior (TPB) (Ajzen, 1991) serves as the theoretical basis for the majority of studies on entrepreneurial intent (e.g., Autio, Keeley, Klofsten, & Ulfstedt, 1997; Fayolle & Gailly, 2004) since the formation of intent is essentially the first step in the entrepreneurial process (Lee & Wong, 2004). This theory purports that intention is an important precursor to behavior and serves as the single strongest predictor of engaging in a particular behavior (Ajzen, 1991, p. 2001). As such, Liñan and Chen (2009) developed an entrepreneurial intentions measure, which has been widely used in the literature on measuring entrepreneurial intent.

There are generally three commonly accepted antecedents to entrepreneurial intentions: personal attitudes, subjective norm, and perceived behavioral control. Personal attitudes represent how an individual perceives entrepreneurship, whether positive or negative, and includes both affective and evaluative aspects (Liñan & Chen, 2009). Subjective norms deals with others' attitudes about whether entrepreneurship is an acceptable career path (Ajzen, 2002). Perceived behavioral control addresses whether an individual feels both competent to become and confident in controlling his or her future as an entrepreneur (Liñan & Chen, 2009). Most studies of TPB within entrepreneurship examine both personal attitudes and perceived behavioral control as antecedents to intent. As such, these two factors are examined within this evaluation, given that the perceptions of referent others are unlikely to be influenced by entrepreneurship program instruction.

LaunchIt Program Background

The LaunchIt Program was developed and sponsored by a Midwestern public university in a metropolitan city. The non-credit, publicly available course met once per week for three hours over a 10-week time period. The course materials included: exploring entrepreneurship basics, networking, defining target markets, conducting market research, testing/prototyping business concepts, entering and capturing the market, financials, and intellectual property. Each week various community subject matter experts (attorneys, accountants, etc.) would speak to the class and offer networking opportunities, in addition to content. Class participants were assigned to small groups of four in the class cohort and assigned a community business startup mentor with whom they would meet with weekly, separately from the training sessions. These small groups were developed to foster diversity and to promote a higher level of cognitive learning (Vita, 2001).

Research Methodology

This study employed survey methods and data were analyzed utilizing paired t-test methods to account for the pre and posttest format. Data were collected via paper/pen survey questionnaires on the first and last day of the LaunchIt Program during the spring 2019 session, yielding pre and posttest data. There was a cumulative total of 43 participants comprised of 14 females and 29 males. While all participants completed the pretest, a total of 23 completed the posttest, providing a response rate of 54% for data analysis.

Measures

This study adopted a pre/post quasi experimental design (Shadish, Cook, & Campbell, 2002) to measure the participants' change of attitudes with respect to: reflection, perceived behavioral control, personal attitudes, and intent to start a business. Researchers also included a content knowledge section related to business materials covered in class, an assessment of the class in the post survey, and a demographic data section.

There were five sections of the survey with a total of 43 questions. Sections 1-3 related to previously validated and published measures, utilizing 7-point scales, where 1 represents strongly disagree and 7 represents strongly agree.

The full reflection questionnaire comprises four subsets of items related to habitual action, understanding, reflection and critical reflection developed by Kember et al. (2000). Following Lundmark et al. (2019), our study utilized the four questions from the reflection subsection since it was deemed the most pertinent to reflection for potential entrepreneurs enrolled in such a program. For the initial pre-test survey, with n = 43 observations, the reflection scale exhibited reliability with Cronbach's alpha of 0.848, which is closely aligned with the results of Lundmark and colleagues (2019).

Items regarding the Personal Attitude, Perceived Behavioral Control, and Intentions measures developed and validated through the Entrepreneurial Intentions Questionnaire (EIQ), developed by Liñan and Chen (2009) were also included. These three elements were examined as separate constructs, given their treatment as such by the original authors. An assessment of reliability of the pre-test measures, (n = 43) indicates that the measures are reliable, with Personal Attitudes, Perceived Behavioral Control, and Intent yielding Cronbach alphas of 0.970, 0.916, and 0.933, respectively.

Section four comprised 15 multiple-choice questions related to the content materials of the class (knowledge) and the last section included demographic data identifying education, military status, employment and ethnicity. For a full list of the content-based questions, see Table 2.

The facilitator of the training course sessions identified each participant's survey responses as either a civilian or a military veteran with a unique numeric identification number. Participants were assured anonymity via this numeric system known only to the facilitator of the courses.

Results

As shown in Table 1, there were no significant differences for the reflection, personal attitude, or intention constructs in their entirety between the pre and posttests. However, perceived behavioral control did significantly improve during the course of the LaunchIt Program ($t = -2.270$; $p<0.033$). As such, we examined the individual items for each construct to determine which items show the greatest improvements between the pre and posttests.

In the Reflection construct, the item "I often reappraise my experience so I can learn from it and improve for my next performance," significantly improved after instruction ($t =-2.712$; $p<0.013$).

There were no significant differences in items related to personal attitude towards entrepreneurship nor intentions to be an entrepreneur between the pre and posttests. However, within the perceived behavioral control construct, both "I know the necessary practical details to start a firm," ($t =-3.158$; $p<0.004$) and "I know how to develop an entrepreneurial project," ($t=-3.785$; $p<0.001$) significantly improved after instruction. As such, participants appear to have gained particular value from instruction in reflecting on experiences to facilitate improvement and understanding how to start a business and develop projects.

We found that generally, participants' knowledge of the specific content[1] from the course improved significantly between the pre and posttests. Overall, the knowledge improvement was highly significant after instruction ($t=-3.085$, $p<0.006$). In particular, participants significantly improved their knowledge in the following respective areas over the course of instruction: customer validation ($t=-2.145$, $p<0.43$), total available market ($t=-2.460$, $p<0.022$), product-economic fit ($t=-2.609$, $p<0.017$), gross margin ($t=-2.646$, $p<0.016$), and churn rate ($t=-3.559$, $p<0.002$). Given the improvement of scores both individually, and as a whole, the program content appears to be helping participants learn information critical to the start-up process, such that their confidence in their capability to launch a business significantly improves across the course.

In addition to objective measures of value, we also explored subjective measures through the program evaluation. The participants completing both the pre and posttests were generally highly satisfied with the program. The descriptive statistics for the program evaluation questions are provided in Table 3 below. Responses to the evaluation questions suggest the material is perceived as highly helpful, the presenters are sufficiently knowledgeable, and participants would recommend the program. The item with the lowest mean related to whether the program met expectations. With the substantial difference in mean between this item and the others regarding content, knowledge-base, etc., it may be that the program was simply "different" from what the participants anticipated, but not in a negative way.

Discussion and Implications

Prior research has shown entrepreneurial educational programs positively influence entrepreneurial attitudes such as self-esteem (Harris, Gibson, Taylor, & Mick, 2008); passion (Kerrick, Cumberland, & Choi, 2016; Kuratko & Hodgetts, 2004); and networking (Lyons & Zhang, 2018). In this study we explore the effect of an entrepreneurial training program on reflection, personal attitude, perceived behavioral control (PBC), and intent to start a business. Furthermore, we examined the participant's cognitive understanding about launching a business both pre and post course, as well as their overall satisfaction with the 10-week program.

With respect to our first research question, "Does the LaunchIt Program promote reflective thinking?" we did not find significant change for this construct. Only one of the four items, "I often reappraise my experience so I can learn from it and improve for my next performance," significantly improved after instruction. Given the participants are prospective or nascent entrepreneurs, they may have had no or limited experience with venture formation, limiting their ability to see alternative methods for doing things, or question the approach of fellow entrepreneurs. Furthermore, it is possible that instead of measuring "general reflection" the "critical reflection" scale may have offered a more targeted measure as the LaunchIt Program may change the way the participant views themselves, challenge their ideas of what being an entrepreneur entails, give them a new way of doing things, or help them discover inaccurate beliefs about what it takes to be an entrepreneur. An implication from this finding is to incorporate the "critical reflection" scale in our on-going assessment of the LaunchIt Program.

The second research question concerned whether the LaunchIt course improved an individual's PBC, which would indicate that the participant ended the course with more conviction about the feasibility of becoming a successful entrepreneur. There was significant improvement in the PBC score. This finding adds additional support to Autio et. al's (2001) and Rauch and Hulsink's (2015) studies of entrepreneurial training efforts that found such training to have a positive effect on participants' PBC.

[1] A full list of content questions are available from the corresponding author.

We postulate that an explanation for why the third research question, which investigated whether the course increases participants' intent to start a new venture, as measured by both personal attitudes and intentions, did not shift is due to the high score in the pre-survey. These adult participants started this course with high interest to become an entrepreneur, hence the baseline itself made it difficult for further movement in scores. This would suggest that while a useful measure for traditional college students, this measure may be less valuable when used in an educational setting of adults who have already made a cognitive choice to actively consider self-employment.

As a key objective of entrepreneurial education is to provide prospective and nascent entrepreneurs with knowledge and skills that are need to navigate launching a new business venture, it is incumbent for these types of programs to assess what knowledge is gained. The findings from the LaunchIt Program demonstrate that the content of the course is being absorbed by these individuals, which should assist them in making more informed decisions as they move forward on entrepreneurial ventures or even opt not to pursue self-employment. As educational programs must operate on the premise of meeting the expectations of the attendee, the LaunchIt Program succeeded with respect to Kirkpatrick's (2007) first level of "reaction" within his evaluation model, which measures what participants think about the training.

Conclusion and Future Research

Given that much of the research on entrepreneurship and training occurs with students in undergraduate or graduate programs, this study provides important insights for how a program performs for adults who are more likely to be at the crossroads for a decision to become an entrepreneur. Our contention is that entrepreneurial training programs need to assess whether their outcomes are being achieved. To address our questions, we relied on a pre/post test design to gauge whether reflection, PBC, personal attitudes, and intention would be strengthened. Furthermore, we assessed the practical questions of whether attendees gained new knowledge, as well as whether participants were satisfied with the program.

There are a host of other potential benefits a course on entrepreneurship could be attempting to achieve. The key is for curriculum developers is to determine these goals upfront and develop evaluation tools on the front end. What would also be extremely useful would be for these types of adult educational programs to track participants' ventures. Such tracking would enable longitudinal research to assess the impact of these programs on the number of entrepreneurial endeavors undertaken, as well as the success ratio of these efforts. Given that multiple variables could impact the survival of new ventures, we recommend a mixed methods study to explore both the survival rate, as well as examine the perceptions of the entrepreneurs with respect to whether they found the training program gave them a leg up as they undertook the "American Dream" of business ownership

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Table 1. Results of Paired t-Tests for Evaluation Constructs

Construct	Mean Difference (Pre-Post)	Standard Deviation	t	Significance (2-tailed)
Reflection	-0.130	0.639	-0.979	0.338
Personal Attitude	-0.113	1.405	-0.386	0.703
Perceived Behavioral Control	-0.514	1.087	-2.270	0.033
Intentions	0.063	1.234	0.248	0.806

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Table 2. Results of Paired t-Tests for Individual Items within Constructs

Construct	Mean Difference (Pre-Post)	Std. Dev.	t	Sig. (2-tailed)
Reflection				
I sometimes question the way others do something and try to think of a better way.	0.348	1.748	0.954	0.350
I like to think over what I have been doing and consider alternative ways of doing it.	-0.130	0.968	-0.646	0.525
I often reflect on my actions to see whether I could have improved on what I did.	-0.261	0.810	-1.545	0.137
I often reappraise my experience so I can learn from it and improve for my next performance.	-0.478	0.846	-2.712	0.013
Personal Attitude				
Being an entrepreneur implies more advantages than disadvantages to me.	0.250	1.751	0.700	0.491
A career as an entrepreneur is attractive for me. If I had the opportunity and resources, I'd like to start a business.	-0.167	1.404	-0.582	0.567
If I had the opportunity and resources, I'd like to start a business	-0.217	1.380	-0.755	0.458
Being an entrepreneur would entail great satisfaction for me.	-0.261	1.484	-0.843	0.408
Among various options, I would rather ben an entrepreneur.	-0.087	1.593	-0.262	0.796
Perceived Behavioral Control				

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To start a business and keep it working would be easy for me.	-0.043	1.261	-0.165	0.870
I am prepared to start a viable business.	0.000	1.508	0.000	1.000
I can control the creation process of a new business.	-0.043	1.522	-0.137	0.892
I know the necessary practical details to start a business.	-1.250	1.939	-3.158	0.004
I know how to develop an entrepreneurial project.	-1.458	1.888	-3.785	0.001
If I tried to start a business, I would have a high probability of succeeding.	-0.500	1.504	-1.629	0.117
Intentions				
I am ready to do anything to be an entrepreneur.	0.250	1.113	1.100	0.283
My professional goal is to become an entrepreneur.	0.042	1.601	0.127	0.900
I will make every effort to start and run my own business.	-0.042	1.367	-0.149	0.883
I am determined to create a business in the future.	0.000	1.351	0.000	1.000
I have very seriously thought of starting a business.	0.000	1.532	0.000	1.000
I have the firm intention to start a business someday.	0.125	1.727	0.355	0.726

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Table 3. Descriptive Statistics for Program Evaluation Questions

Question	Min	Max	Mean	Standard Deviation
The presenter(s) were knowledgeable about the topics they addressed	1	7	6.48	1.377
The format of the LaunchIt training was appropriate for the content.	1	7	6.04	1.461
The content of the LaunchIt Program was useful to helping me achieve my goals	1	7	6.26	1.484
My expectations for this training program were met	1	7	5.70	1.550
I would recommend this program to others interested in starting their own business	1	7	6.22	1.565

DRAFT

Evidence of an Archetypal Management Framework

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Abstract

The burgeoning management science fields have produced and continue to produce vast quantities of advice, frameworks, and checklists for owners, leaders, and managers. Evidence is emerging that the proliferation of management science may be overwhelming and that the advice is not sufficiently integrated and only addresses discrete parts of the enterprise, not the whole enterprise system. One would expect to find evidence of repeating patterns in the general class of socio-technical systems known as enterprises. This article presents evidence of such an archetype and proposes a framework for management based on the finding.

Keywords: Management, Management Framework, Archetype, Enterprise Management

Introduction

Enterprises represent the most prevalent type of systems in the worldwide economy, far greater in number than other complex systems (Rouse, 2005). These enterprises represent complex, adaptive, socio-technical systems (Gharajedaghi, 2006). They are ubiquitous and involve and impact a vast number of humans every day (P. Checkland, 1999; Pennock & Rouse, 2016; Rouse, 2011). As of 2015, there were over 5.9 million small business firms in the United States (US Census Bureau, 2015). The National Center for Charitable Statistics reports over 1.5 million charitable organizations in the United States (The National Center for Charitable Statistics, 2015). According to the US Small Business Administration, small businesses create 64% of the net new jobs and employ 47% of the country's private workforce (2018). Extending these numbers beyond the US, the ubiquity and importance of this class of enterprises are evident.

Enterprises, as complex adaptive socio-technical systems, are notably hard to manage and stubbornly resistant to change precisely because they are complex, adaptive systems (de Weck, Roos, & Magee, 2011; Hoebeke, 1994; Kotter, 2007; Rouse, 2011). At the enterprise level systems dynamics tend to dominate (Hoebeke, 1994; Rouse, 2011). Further, W. Edwards Deming found that upwards of 94% of all errors, defects, mistakes, misunderstandings in the enterprise were systemic (Deming, 1982, 1994); people in the system wanted to do the correct thing, but were led astray by the system. Management is the systems architect and thus cannot escape culpability for these findings (Gharajedaghi, 2006; Hoebeke, 1994). The Gallup Organization's survey findings offer evidence of systemic underperformance. The Gallup organization surveys companies every year for employee engagement. In 2015, 50.3% of the employees surveyed responded they were disengaged at work, and 16.8%% said they were actively disengaged (Adkins, 2016). In all, more than 67% of the respondents indicated they were disengaged from the system; results predicted by systems thinkers as far back as the 1970s (Ackoff, 1971; P. B. Checkland, 1971; Churchman, 1979; Senge, 1990b).

Systems thinking has been described as "the discipline that integrates the discipline" (Senge, 1990a). Therefore, this research is of particular importance because it has the potential to affect all of the management disciplines at the enterprise level – the strategic level. A better

understanding of an archetypal management structure can only be of help to each of the discrete management and social science disciplines.

Too much, and not enough, management advice?

A review of the relevant literature and a search of the disciplines reveal many useful models specific to planning, strategy, marketing, human resources, project management, risk management, resource management, engineering management, and many more management areas. All these models are useful for managing portions of the enterprise, or processes therein, but fall short of offering holistic, enterprise-level system models or frameworks.

Management Models

From all the management literature, many models have emerged to cope with managing the complex, adaptive, socio-technical systems we call enterprises. It is beyond the scope of this review to look at each management model. However, it is instructive to explore the underlying nature of the models and their use.

Marshak summarizes many of the most common managerial models and draws the following conclusions (Keenoy, Marshak, Oswick, & Grant, 2000):

1. The models contain many of the same elements, but with different orientations and emphases.
2. The models contain several elements in the range from four to twelve, but most commonly contain between five and seven.
3. They contain implicit or explicit interaction and interrelationships among the elements.
4. Each model omits elements advanced as critical by other models or that other schools of thought emphasize.

Keenoy et al., discuss the importance of a common set of elements and a common understanding of these elements and their interaction as critical to organizational discourse and managerial success (Keenoy et al., 2000). This research reiterates Senge's findings on the importance of common mental models, holons, team learning, and systems thinking (Senge, Roberts, Ross, Smith, & Kleiner, 1994). The importance of these unifying themes is demonstrated in the preponderance of corporate universities found in leading companies worldwide (Abel & Li, 2012). These internal universities are designed specifically to teach the common elements, common mental models – constructs, frameworks unique to the specific business (Rouse & Morris, 1986; Senge, 1990b), common language and understanding of a holistic management system (Allen, 2002). In teaching these common elements in a Socratic way, these universities are, by default, capturing Checkland's notion of using Koestler's holons to structure learning, debate, and understanding (P. Checkland, 1999; Koestler, 1967; Stewart, Shaw, & Blass, 2005; Storey, 2004).

> *"The prime systemicity lies in the process of inquiry rather than in the real world, as is assumed in hard systems thinking, which attempts to model the real world. In soft systems methodology, the models of human activity systems are holons used as devices to structure coherent debate (Peter B. Checkland & Haynes, 1994)."*

All of the prior foundational work has led to a broad understanding of the management disciplines (Collins, 2001; Deming, 1994; Drucker, 2001; Kaplan & Norton, 2008; Quigley & Hambrick, 2015; Wheatley, 2006). However, the sheer number and proliferation of management models have proven to be problematic, as managers face an overwhelming array of models from which to choose (Drucker, 2001; Schwaninger, 2001). In addition to the sheer

volume, the management disciplines suffer from the same schisms and reductionist tendencies as befell earlier academic efforts in the natural and social sciences (Churchman, 1979; Deming, 1994; Jackson, 2003). Much of management thought, and practice is designed to optimize certain discrete functions within the organization – finance, human resources, marketing, etc. This concept, known in system thinking as point optimization, or sub-optimization (Meadows, 2008), is anathema to good systems thinking as managers strive to optimize their area of influence (point optimization) often at the expense of the whole enterprise, the system (Goldratt, 1984; Meadows, 2008; Rouse, 2011). Yet the disciplinary structure of the academy almost assures a lack of inter-disciplinarity (Churchman, 1979). As Arnold and Lawson point out, business and management curricula are almost totally devoid of systems thinking elements (Arnold & Lawson, 2004).

W. Edwards Deming and Peter Drucker, two of the most influential management thought leaders, wrote extensively on the need for managers to be more rounded and more holistic in their thinking. In topics ranging from leadership to globalization, accounting to research, manufacturing to supply chain, they espoused a more systemic view (Deming, 1982, 1994; Drucker, 2001). Collins and Porras identified the characteristics of successful organizations, including a more inclusive view and some of the concepts embodied in Churchland's soft systems methodology (Churchman, 1979; Collins & Porras, 1994). Collins furthers these ideas identifying the traits, many that are mirrored in systems thinking that allowed companies to make transformational moves in their industries (Collins, 2001). From the systems engineering realm, Rouse explores the business management implications of enterprises as systems. He explores the essential challenges that are inherent in the dynamics of a constantly changing environment and how firms can use systems concepts for enterprise transformation (Pennock & Rouse, 2016; Rouse, 2005). Kaplan and Norton presented a broader, more holistic performance management concept, *The Balanced Scorecard*, that included measures generally considered to be the soft side of management (Kaplan & Norton, 2007, 2008).

It only matters if the system learns

Management scientists have described the various phenomena by which elements of complex, adaptive, socio-technical systems learn and grow, either by design or by default (Chan, 2009; Fyock, 1999; Senge, 1990b). However, the notion that an enterprise is a system is not a universally accepted construct in the business management community (Atwater, Kannan, & Stephens, 2008; Senge, 1990b). Senge advances the notion that systems thinking is the missing link - the "Fifth Discipline" - that enables, organizational learning as distinct from individual learning (Senge, 1990a). Senge is largely responsible for awakening, or re-awakening, the business community to systems thinking. Despite the commercial success of Senge's book, there remains little evidence that mainstream business management disciplines have integrated systems thinking. Atwater et al. report that a comprehensive treatment of systems thinking is lacking in graduate and undergraduate management programs (Atwater et al., 2008).

Another area Senge promoted was team learning. Levitt and March, from the Sociology and Business schools at Stanford, wrote about organizational learning before Senge. They clearly articulate many of the same concepts of systemic learning as Senge; however, they do not use the term systems thinking (Levitt & March, 1988). Slowly the worlds of business management and systems thinking are coming together, and the enterprise is the meeting place. Bardoel explores the importance of applying systems thinking tools in organizational behavior training (Bardoel & Haslett, 2004). Segatto et al. advance the concept of systems

thinking into the area of business process management (Segatto, Silvia Inês Dallavalle de, & Dante Pinheiro, 2013).

Towards a common set of elements – an archetype

The profusion of management thought, and frameworks make system learning harder, by offering management new novel mental models with which to frame the enterprise. Managers employ these "new" tools and new language to tackle the same problems as before, leading to confusion, not clarity (Ackoff, 1999; Hoebeke, 1994; Jick & Peiperl, 2010; Pennock & Rouse, 2016; Rouse, 2011).

Research Methodology

The following research questions guided the exploration onto the existence of an archetypal management model or framework.

(1) Is there sufficient commonality and overlap in existing business enterprise management models to evidence a common set of framework elements, an archetype?

(2) Do companies that apply the common management elements identified in the extant business management models in a systematic way exhibit better performance?

The complexity of the research required the employment of a multi-phase research methodology. The phases were as follows:

(1) An extensive literature review and analysis of existing, most prevalent management models and frameworks from the areas of general management, strategic management, change management, project/program management, human resources management, organizational behavior, and the social sciences.

(2) Extensive content and affinity analysis of the most common frameworks found to develop a set of generalized management elements, which form the definitional elements of the survey and semi-structured interview instruments.

(3) Semi-structured interviews with owners and chief executive officers of companies known to use a management system incorporating some or all the common elements to verify usage and efficacy of the framework and elements.

(4) Repeating phase 2 repeatedly to confirm evidence of an archetypal management model.

Evidence of archetypal management elements

To determine the most prevalent management elements in use, internet searches were initially conducted to identify images of frameworks or models using the following terms – *strategic management model, strategic management system, enterprise management model and enterprise management system*. Initial searches captured additional terminology, so the searches expanded to include *change management, risk management, project management, and human resource management* models and frameworks. Initial raw search results yielded over 2,400 potential images. Using the following criteria further narrowed the initial results:

- The image must be a graphical representation of a management model or system with distinct, named management elements (versus text, photographs, graphs, etc.);

- The model must have at least three distinct management elements;
- There must be no evidence of overlap (e.g., identical elemental structures utilizing a different name).

Applying the above criteria, the potential management frameworks were reduced to an initial set of 169 for further study. Using literature searches and review, these were further filtered by requiring that the model must be directed at managing all or part of the enterprise (e.g., not a framework for inventory numbering or bill of material structure, risk management, etc.) leaving seventy-one management models for rigorous analysis. Next, the verbiage of every element of all seventy-one models was content analyzed for raw numbers of repetitions. One hundred eighty-seven different terms used six hundred thirty times (an average of 4 elements per model) were analyzed using standard numerical content analysis techniques - counting and summing occurrences. These terms were further subjected to affinity analysis to eliminate overlap and concentrate on generalizable terms. For example, the terms *plan, planning, and strategic planning* were all ranked among the top elements and were subsequently reduced to the element 'strategic planning.' This affinity analysis further refined the elements to the following common management elements – Leadership, Corporate Culture, Developing People, Strategic Planning, Structure, Control and Governance.

Note: after the conclusion of the initial research, subsequent student researchers with no prior contact or access to early work repeated the precise research methodology serially to verify the results. The following results are from the final research round, but all rounds had similar findings, including the ranking of most popular frameworks and most common elements.

Figure 3-4 summarizes the findings.

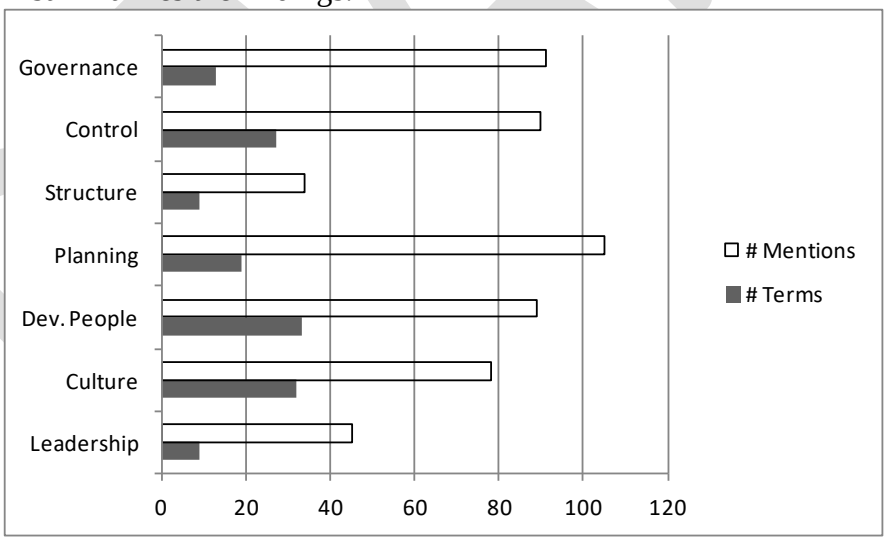

Figure 0-1: Results of Content and Affinity Analysis

In the next step, the most common management models, as revealed by the literature searches and review, were specifically searched by name to determine the frequency of citation. It

should be noted that citation volume used as a proxy for usage is a technique popularized by Page, Brin, et al. (Page, Brin, Motwani, & Winograd, 1999).

Table 3-1 reflects the results.

Table 0-1: Management Model Search Frequency

Model	Name	Frequency	Rank
McKinsey	Seven S Model	2,270,000	1
Kaplan	Balanced ScoreCard	555,100	2
Blake & Mouton	Managerial Grid	65,000	3
Burke & Litwin	Causal Model of Performance and Change	50,100	4
Freedman	Swamp Model of Socio Technical Systems	49,800	5
Galbraith	Star Model	44,400	6
Kotter	Org. Dynamics Model	30,400	7
Hanna	Org. Performance Model	27,100	8
Kilmann	Five Track Model	26,000	9
Bolman & Deal	Four Frames Model	20,900	10
Leavitt	Diamond	19,700	11
Morgan	Metaphors	13,200	12
Nadler & Tushman	Congruence Model for Diagnosing OB	8,680	13
Weisbord	Six Box Diagnostic Model	2,820	14

All of the models from Table 3-1, and the literature associated with them, were analyzed to determine the intent and scope of usage of the individual elements embodied in each one (Blake & Mouton, 1969; Bolman & Deal, 1984; Bryan, 2008; Burke & Litwin, 1992; Freedman, 2011; Galbraith, 2002; Hanna, 1988; Kaplan, 2005; Kilmann, 1986; Kotter, 2007; Leavitt, 1962; Morgan, 1980; Nadler & Tushman, 1980; Weisbord, 1976). Table 3-2 below maps the overlap of the most commonly used management models and the most common elements as identified in the content and affinity analysis.

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Table 0-2: Element Coverage Commonality

Model	Leadership	Culture	Developing People	Strategic Planning	Org. Structure	Control Systems	Governance
McKinsey		X	X	X	X	X	
Kaplan		X	X	X		X	
Blake & Mouton	X	X	X				
Burke & Litwin	X	X	X	X	X	X	
Freedman		X	X	X	X	X	X
Galbraith		X	X	X	X	X	
Kotter		X	X	X	X	X	X
Hanna	X	X	X	X	X	X	
Kilmann	X	X	X	X	X	X	
Bolman & Deal	X	X	X		X		
Leavitt		X	X	X	X	X	
Morgan	X	X	X		X		X
Nadler & Tushman		X	X	X			
Weisbord	X		X	X	X		

Summary of archetypal element research

The research and literature review resulted in a clear articulation of elements common to the most often used management frameworks. These common elements do not represent a mutually exclusive, collectively exhaustive (MECE) set of elements or a framework for all management purposes, just the most common elements of the most common frameworks, and therefore evidence of an enterprise archetype. The following definitions of these elements are not intended to be prescriptive or definitive for any purpose other than establishing a common reference language for the survey and interview recipients in the next phase of the research. This methodology for generalization was used to minimize or eliminate any bias on the part of the participants for a particular embodiment of the elemental terminology or for specific management frameworks or set of elements that may have been in use, previously used, or preferred by the participating CEOs, (Creswell, 2003; Leedy, 1997; Yin, 2014). For

the purposes of conducting the semi-structured interviews, the archetypal elements were defined for the participants as follows:

(1) ***Leadership*** - A formal method of developing and assessing leadership and leadership potential, both current and future, within the enterprise.

(2) ***Organizational Culture*** - A formal method of developing and assessing organizational culture, both current and future, within the enterprise.

(3) ***Development of Personnel*** - A formal method of developing and assessing the skills and capabilities, both current and potential, within the enterprise.

(4) ***Strategic Planning*** - A formal, cross-functional team-based method for planning for the future of the enterprise.

(5) ***Organizational Structure*** - Clear representation of all the organizational structure elements embodied within the enterprise.

(6) ***Control Systems*** - All the visible, demonstrable systems that monitor enterprise performance.

(7) ***Governance*** - The enterprise system used to govern, including the board of directors.

Evidence of archetypal system framework and efficacy

To test the hypothesis that the elements, when assembled into a framework and used systematically led to better enterprise performance, the author conducted semi-structured interviews with owners and chief executive officers.

Semi-structured Interviews with Owners and CEOs

The next phase of the research involved interviewing owners and CEOs of companies known to use one of the common management models, identified in Phase 1 and containing at least five, if not all, of the common elements, found.

Semi-structured Interview Instrument Design and Testing

Interview questions were carefully designed to provide insight into the research questions posed. The instruments were reviewed before use by business owners, CEOs, and business consultants known to utilize commonly used frameworks identified in the literature search to verify language and clarity (Whiting, 2008). Following review by the business advisors, the Institutional Review Board at George Washington University (GWU-IRB) approved the instrument for use.

Semi-Structured Interview Population and Conduct

Utilizing independent business consultants with client bases known to use common business management frameworks including the elements (Leedy, 1997), one hundred and thirty-one contacts were made across all industries, sizes, and ownership types and screened for participation (Creswell, 2003). Thirty-seven CEOs initially agreed to participate and received the survey instrument. Twenty-three semi-structured interviews were conducted (62.1% response rate). Interview participants received an email containing the research instrument and were asked to fill it out in advance and to provide a convenient date and time for the formal interview. Sending the questions in advance helps to eliminate biases and steering that may be introduced by the interviewer in the live interview (Cachia & Millward,

2011). During the conduct of the actual interview, the interviewer verified the respondents' answers and offered the respondents an opportunity to expand upon their answers and clarify any areas of confusion. A secondary benefit of this approach was the development of a fuller and more nuanced understanding of the field of research than is possible with a traditional blind survey (Whiting, 2008).

Design of Research Plan to Eliminate Bias

The researcher must be very careful not to introduce bias into the research, especially when utilizing multi-phase, qualitative, or mixed methods (Creswell, 2007). Careful consideration was given to this concern in the development of this research methodology. Specific safeguards employed to combat the introduction of bias were as follows:

1. Generating the generalized set of elements using multiple search, content, and affinity analysis techniques to ensure veracity and subsequent verification of results with literature research.
2. Utilizing a generalized set of management elements for all research instruments to a) ensure consistency throughout the phases, and b) ensure individual or institutional biases to specific management models or frameworks were avoided (Creswell, 2003).
3. Verifying the practical utility and efficacy of the generalized elements to ensure that later phase research explored reaction to known efficacious elements and not theoretical efficacy only (Leedy, 1997).
4. Utilizing the semi-structured interview method of sending the research instruments in advance to eliminate live survey and interviewer bias (Cachia & Millward, 2011; Whiting, 2008; Yin, 2014).
5.

Findings from Enterprise CEO Interviews

Table 4-8 characterizes the respondents to the semi-structured interviews conducted with CEOs concerning enterprise performance. Categories include title, average tenure, revenue range, and growth rates.

Table 0-3: Management Element Respondent Profile

Representative titles	CEO, Owner, Partner, COO
Average number of years experience in role	14
Revenue Range	$7 Million - $3.5 Billion
Average Revenue Growth Rate	116%
Profit % Range	-106% to 765%
Average Profit Growth Rate	95%
Average Revenue Per Employee Growth Rate	60%

One hundred percent (100%) of the owners and CEOs indicated the common management framework elements helped to optimize their business, and eighty-five percent (85%) said they teach it as a system of management. Seventy-nine percent (79%) indicated they teach it to all of their employees. Eighty-five percent (85%) of the respondents felt the model was generalizable and was applicable across divisions, companies, and industries. On average, they rated the effect on the business of using a defined management system with clearly

defined management elements as *transformative* (Likert Level mode = 5). Table 4-9 below summarizes the results from each element individually.

Table 0-4: Individual Element - Effect on Business

Element Effect on Business					
	Mode	**Med**	**Min**	**Max**	**St Dev**
Leadership	5	5	3	5	0.6
Organizational Culture	5	5	4	5	0.5
Development of Personnel	5	4	3	5	0.7
Strategic Planning	5	5	3	5	0.6
Organizational Structure	4	4	3	5	0.5
Control Systems	4	4	3	5	0.6
Governance	5	4	2	5	1

Echoing the findings in the literature review, the most important elements were found to be those from the soft systems methodology. The lowest scoring individual elements were the more traditional and predictable structural and control elements, yet even here, respondents deemed them to have a large positive effect. While the mode was a five and the median was a 4, one element, Governance, scored a minimum rating of two, *no effect on enterprise performance.* The score was only from two respondents out of twenty-three (9%). Further analysis of these interviews indicates these two respondents are in partnership structures. In such structures the partners represent both leadership and governance (Kumar & Zattoni, 2014) possibly leading to a perceived redundancy in the survey question for these respondents. This duality may explain the low minimum score for the Governance element and hence the larger variability.

Extent of Practice within the Enterprise

The respondents rated the degree to which a defined management system was practiced within the enterprise as *foundational to the business* (Likert Level mode = 5). Table 4-10 summarizes the results for the individual elements.

Table 0-5: Degree of Practice within Enterprise

Element Degree Practiced					
	Mode	**Med**	**Min**	**Max**	**St Dev**
Leadership	5	5	3	5	0.7
Organizational Culture	5	5	4	5	0.5
Development of Personnel	4	4	3	5	0.6
Strategic Planning	5	5	4	5	0.5
Organizational Structure	4	4	3	5	0.7
Control Systems	5	5	4	5	0.5
Governance	4	4	2	5	0.8

Financial Performance and Anecdotal and Expert Opinion of Efficacy

Financial results are the traditional measures used to assess efficacy and performance in a business enterprise. For this research, and using the measures owners and CEOs were willing to share, revenue growth rate, profit growth rate and revenue per employee were the measures used to assess performance. The respondents provided actual revenues, profits (EBIT) and in most cases employee counts. Growth rates were calculated from this information. Respondents were not as precise with employee numbers as with financial data, often giving approximations of staffing. Consequently, only revenue and profit growth rates were used in the statistical analysis. There is considerable debate as to what constitutes performance with respect to management systems (Huselid, 1995) and what and how certain independent variables contribute to enterprise success and performance (Kumar & Zattoni, 2014; Quigley & Hambrick, 2015).

Senge and others have noted that financial measures are not necessarily the best measures of system health and effectiveness, however, they are the most universal (Deming, 1982; Kaplan & Norton, 2008; Rouse, 2011; Senge, 1990b), and in the case of this research, the only non-ordinal data collected.

Anecdotal evidence of efficacy from using the elements is echoed in the financial results and the opinions of the respondents. Over the study period, 2007 to 2013, average revenue growth was reported to be 116%, and average profit growth rate was reported to be 95%. It should be noted this period includes the greatest recession in US history and the participants included companies in real estate, construction, mechanical contracting and leisure and travel, some of the hardest-hit industries. During this same period average growth of US Gross Domestic Product (GDP) was 0.73% (Young, 2013). The respondents reported an average revenue growth rate of 116%. Sample sizes proved to be too small to infer any statistical significance.

Specific comments and opinions advanced by the respondents speak to the efficacy of the common elements in enterprise performance. Below are some representative responses:

> *"The impact on our growth rates is impossible to discern, but I believe using the framework as a system has caused me to focus on the areas where I can have the greatest impact. The elements individually created great value*

for me, but as a system the framework transforms my company's performance."

"Without these elements used as a system, we probably would not have survived."

"The results over the last nine years, especially in the area of profitability, but also in hiring and development of our people and overall quality of programs in marketing, sales and logistics - without a doubt our enterprise has been enhanced by using the elements and the model."

"Using the model, we have excelled comparatively to our peers (growth in the business (enrolments and revenue), growth in net assets, etc. and are consistently identified as the best place to work based on employee surveys."

Conclusions

From the research into the most common elements of the most common enterprise management models, it appears that there is an archetypal set of elements. There are several implications for owners and managers in these findings:

1. There was variability in the descriptions and uses of each element revealed in the research. These slight variations are not problematic firm to firm; however, it is imperative to clearly describe and define the elements chosen within a given firm so that all occupants reach a common language and common mental models.
2. Whether managers choose a named framework, use the one described herein, or create their own, which framework they choose is not as important as assuring that the common elements all have coverage.
3. Managers must view the chosen framework and the elements of that framework as a system and use it consistently in such a manner.
4. Managers must train all system occupants in the language and use of the system for full effectiveness.

Owners and managers should not abandon all past affinity to current models and frameworks. The keys are to assure that the common elemental coverage is in place, and the framework is used as a system.

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DRAFT

Accommodating Heterogeneity in Brand Loyalty Estimation: Application to the U.S. Beer Retail Market

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Abstract

Accurately modeling and measuring a brand loyalty parameter can drastically affect the measurement of consumer impacts in brand-choice models. The most well-known method for brand-loyalty estimation uses a household's shopping history and accounts for habit formation via a single smoothing parameter that represents the weight given to households' recent decisions in comparison to their distant shopping history. In this paper, we introduce a method for estimating time-varying smoothing parameters for heterogeneous households. Using Nielsen Homescan data for the U.S. beer market, we calculate smoothing parameters for American households during the years 2009-2011. Our results show that the smoothing parameter varies significantly not only among households but also for single households during the study period, and that this variation is partially explained by observed household characteristics. We then incorporate a brand-loyalty index based on this method into a brand-choice model of the American beer market and show that our method improves the estimation results.

Keywords: Brand Choice Models, Household Heterogeneity, Nonlinear State Dependent Variables, Past Purchase History, Nielsen Homescan data.

Introduction

Brand loyalty, a state-dependent persistence for a particular brand despite potential price changes, is important not only because of the effect it has on consumers' decision-making processes, but also because firms selling brands with a loyal following enjoy predictable sales and secure consumer demand. Brand loyalty can create an entry barrier (Aaker, 1991), increase customers' willingness to pay (Schmalensee, 1974; Aaker, 1991), decrease customers' price sensitivity (Reichheld & Sasser, 1989), and reduce consumers' motivation to switch brands (Dick & Basu, 1994). Brand loyalty also creates a buffer that protects firms strategically in marketing confrontations and offers valuable time for reacting to competitive moves (Aaker, 1991). Keane (1997) clarifies the importance of household demographics and state dependent variables in brand-choice models. Chaudhuri and Holbrook (2001) examine the influences of loyalty on market share and relative price. In short, brand loyalty toward a firm's products is a strategic asset that can be achieved by long-term marketing activities and/or personal experiences (Kotler, 2000).

With interest from economists, psychologists, and marketing specialists, a wide range of research exists on how state-dependent variables affect choices, enter the decision-making process, and can be modeled and parameterized. Most of this research focuses on how one

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brand competes among other consumer brand choices in a specific product category (Bentz & Merunka, 2000). According to Ballantyne et al. (2006), brands are no longer just representative of products with specific characteristics; they are now regarded as embodying the individualities, personalities, and lifestyle symbols of customers and their environments. For this reason, behavioral economists have shown increased interest in brand-choice investigations. Prior to this recent interest, a brand-choice researcher's main focus was testing the effects of marketing mix variables in a consumer's decision-making process (Bentz & Merunka, 2000; Chib, Seetharaman, & Strijnev, 2004). However, these marketing-mix variables were product related, but not customer related. Because customer behavior matters, this omission motivated brand-choice modelers to add household characteristics to accommodate consumer heterogeneity as well as state dependent variables, such brand loyalty, to fully account for a wide range of elements in the consumer's decision.

One of the first models using a behavioral brand-oriented method featuring individual-level data was developed by Guadagni and Little (1983) who estimated brand loyalty based on a sequence of repeated consumer purchases. This and subsequent research shows that adding a brand-loyalty index to a brand-choice model can improve the model's performance because an exponentially weighted sequence of past purchases adds substantial explanatory power to a model. Other research, however, has explored the possible shortcomings of this well-known index (Ortmeyer, Lattin, & Montgomery, 1991; Fader & Lattin, 1993; Dong & Stewart, 2012), and especially focuses on improving the measurement of the "smoothing" parameter used to construct it. For example, Fader and Lattin (1992) propose a method for linear approximation of the loyalty index with a Taylor expansion. While this method partly resolves the smoothing parameter measurement issue, it relies on a single smoothing parameter for all households during the entire period of the investigation, and it is static in the sense that neglects the effect of time-related variables on the smoothing parameter. Thus, not only is the smoothing parameter identical for all households, but it is also time invariant. Fader and Latin (1993) separately introduce a brand-loyalty index based on a Dirichlet-Multinomial model that could accept sudden preference changes among households. Later, Dong and Stewart (2012) incorporate heterogeneity into the model as well.

In this paper, we develop a method to estimate time-varying and household-varying smoothing parameters that resolves the main shortcomings of the Guadagni and Little's (1983) model by simpler means than by the Dirichlet-multinomial choice model. Our method integrates household-level demographic information and purchase histories so that our estimated brand-loyalty smoothing parameter is revealed to vary considerably across households and over time. While we explain our precise method for estimating the smoothing parameter below, we acknowledge here that for computational reasons we restrict the smoothing parameter to not vary across each individual household but rather across *c* clusters of households in each three-month period.[1] Thus, our brand-loyalty index is based on 72 different smoothing parameters (nine clusters times eight three-month time periods). We then show that incorporation of this brand-loyalty variable improves the estimation of a brand-choice model applied to the U.S. beer market based on AIC and BIC tests.

[1] As we explain in the results section, for each three-month period, cluster analysis determines that *c* = 9 is generally optimal.

For the American the beer market, we estimate smoothing parameter to vary from a minimum of 0.31 to a maximum of 0.92. A low value of 0.31 means that these households place relatively less weight on their prior purchase history than the most recent purchase; whereas a value of 0.92 means the most recent purchase carries a less importance. Variation in the smoothing parameter is associated a number of observable household characteristics, such as periodic consumption amounts, household income, education, and age, some of which vary through time. Results from the brand-choice reveal that price is yet the most important factor in the household decision-making system, though seasonality is important as well.

Model

To model brand choice in the U.S. beer market, we employ an alternative-specific mixed multinomial logit (MML) model (McFadden & Train, 2000) , also called the random-parameters logit model (Cameron & Trivedi, 2005) or the logit kernel model (Ben-Akiva, Bolduc, & Walker, 2001). The MML model extends the standard conditional logit model by allowing one or more of the parameters in the model to be randomly distributed. Like the conditional logit model, the MML model assumes that choice probabilities are related to a combination of the attributes:

$$P_{ijt} = \int_{-\infty}^{+\infty} \frac{e^{(V_{ijt})}}{\sum_{k=1}^{J} e^{(V_{ikt})}} f(\theta) d(\theta) \qquad (1)$$

Where:

P_{ijt}= the probability that household *i* chooses alternative *j* on purchase occasion *t*

v_{ijt} = the deterministic part of utility of the brand *j* to household *i* at purchase occasion *t*.

$= \sum \theta_r x_{ijt}^r + \sum \gamma_r z_{it}^r$

x_{ijt}^r= *r*th explanatory variable of brand *j* and household *i* on purchase occasion *t*

z_{it}^r= *r*th explanatory variable of household *i* on purchase occasion *t*

$\theta_r \; and \; \gamma_r$ = Coefficients to be estimated

$f(\theta)$= the density function of θ

The MML model can incorporate attributes that vary across individuals such as income, educational attainment, and age as well as attributes that vary by alternative or by alternative and individual. To use a MML as our brand-choice model we maintain three main assumptions

as follows: (i) each alternative holds a preference or utility for our consumer; (ii) each household chooses the alternative provides the highest utility; and (iii) each household maximizes its utility.

We estimate a brand-choice model that accounts for the main determinants of a household's choice between beer brands. We refer to a brand as a product of a manufacturer distinguished by unique attributes. A brand can therefore be sold in different containers using different UPC codes, but it still contains the same product attributes. For example, in our model, Bud Light is a brand that is treated differently from Bud Light Platinum, but Bud Light would be treated as the same brand no matter whether a household purchases a bottle or a can. Due to spurious state dependence and to prevent exaggerating the effect of state dependency in our main model, we follow Keane (1997) to control for the heterogeneity across households. However, we also specifically allow for heterogeneity in our brand-loyalty index computation. Hence, we specify household *i*'s utility consuming brand *j* at purchase occasion *t* as follows:

$$U_{ijt} = \alpha_{ij} + \gamma \mathrm{Z_{it}} + \theta X_{ijt} + \mathrm{L_{ijt}}\left(\lambda_{it}(Z_{it}), \mathrm{Y_{ij(t-1)}}\right) + \xi_{\mathrm{jt}} + \varepsilon_{\mathrm{ijt}} \quad (2)$$

Where:

α_{ij} = Beer brand *j*'s specific contribution to household $i's$ utility.

$\mathrm{X_{ijt}}$ = A vector of alternative-variant variables or marketing mix variables such as price, color, taste and availability. Some of these attributes may vary over time; some may not. For example, a brand's style or color may not change over time, but availability or price are likely to change.

ξ_{jt}= unobserved product characteristics that may correlate with price.

ε_{ijt} = An unobservable random brand- and household-specific error term. This is an *iid* disturbance term.

Y_{ij} = A $(\mathrm{t}-1) \times 1$ vector of 0's and 1's with the rth element equal to 1 if household *i* purchased product *j* at time *r* and equal to zero otherwise.

$\mathrm{Z_i}$ = A vector of household characteristics that are not related to beer brand alternatives.

$L_{ijt}(\lambda_{it}(Z_{it}), Y_{ij(t-1)})$ = Our brand-loyalty variable which is based on our alternative-invariant variables $\mathrm{Z_i}$ and past purchase history, $Y_{ij(t-1)}$.

We specify our loyalty variable for individual *i* for brand *j* at purchase occasion *t* as follows:

$$L_{ijt} = \lambda_{it} L_{ij(t-1)} + (1 - \lambda_{it}) Y_{ij(t-1)} \quad (3)$$

Loyalty in this function is defined as a weighted average of past purchase history. In (3), the smoothing parameter λ_{it} shows how a household consumer weighs her past opinion in comparison to her most recent experience. The comparative effect of the last purchase is given by the parameter λ. If it is equal to one, then our household consumer's brand loyalty relies

only on her previous experiences and it would not be affected by her last purchase. In other words, her brand loyalty is a constant which would be set from the initial point and will neither depreciate nor compound through time. In contrast, if λ is equal to zero, then it means that our consumer does not trust her past judgment and is just relying on her most recent experience. Therefore, knowing the correct value of this smoothing parameter is of utmost importance for marketing scientists. As this state-dependent variable has a significant effect on estimating brand-choice models, estimating the correct value of this smoothing parameter becomes even more critical.

Thus, we allow this smoothing parameter to change though time and across households. Both Fader and Lattin (1993) and later Dong and Stewart (2012) define their loyalty variables by using a single smoothing parameter common to all households. Finding that single smoothing parameter is easily computable but causes specific limitations in dealing with heterogeneity and stationarity. To overcome this problem, we are not only calculating the smoothing parameter λ_{it} for households separately, but we are also treating λ_{it} as a time-varying element of the loyalty variable that may change through time due to environmental, demographical, or geographical changes.

To accomplish the estimation of the time- and household-varying smoothing parameter, we make a number of methodological assumptions. The algorithm for calculating the smoothing parameter first requires a starting point (between zero and one). From here, we follow five steps: (1) To help capture heterogeneity across households, we create *c* clusters with similar household characteristics. In our case, we use the *k*-means method for clustering. (2) We follow previous methods to develop a formula for brand loyalty based on a Taylor series expansion. The exact formula for brand loyalty along with its derivative with respect to the initial smoothing parameter is found using a recursive function. (3) We include these two calculated elements (brand loyalty and its derivative) along with all the other variables in an MML model and recover estimated coefficients for both the brand loyalty and its derivative. (4) We then calculate the smoothing parameter based on the estimated coefficients for each of the *c* clusters separately. (5) Finally, we repeat this process until the smoothing parameter converges, at which point we recover the estimated smoothing parameters. As an aside, we investigate how the estimated smoothing parameter associates with household-level demographic variables by estimating a simple linear model. Finally, we use the estimated smoothing parameters to calculate brand loyalty and add this household-specific variable into the brand-choice model. This last task, estimating and evaluating a MNL brand-choice model that incorporates our brand-loyalty variable recovering, is our ultimate goal.

We compute λ_{it} by relying on a modified version of the nonlinear estimation algorithm first introduced by Fader and Lattin (1992). Our modifications accommodate the heterogeneity in the smoothing parameter.

First, we expand $L_{ijt}\left(\lambda, Y_{ij(t-1)}\right)$ in a Taylor series around a starting value or initial point λ_{it}^{0}:

$$L\left(\lambda_{it}, Y_{ij(t-1)}\right) = L\left(\lambda_{it}^{0}, Y_{ij(t-1)}\right) + \frac{dL\left(\lambda_{it}, Y_{ij(t-1)}\right)}{d\lambda_{it}}\left(\lambda_{it} - \lambda_{it}^{0}\right) + \sum_{n=2}^{\infty} \frac{d^{n}L\left(\lambda_{it}, Y_{ij(t-1)}\right)}{d\lambda_{it}^{\,n}} \underline{\lambda_{it}} \qquad (4)$$

If $L\left(\lambda_{it}, Y_{ij(t-1)}\right)$ is a smooth function (i.e., its derivatives with respect to λ_{it} are bounded) in an interval containing both λ_{it}^{0} and the maximum likelihood estimate (MLE) value

of λ_{it}, then the second- and higher–order terms in (4) will approach 0 as λ_{it}^{0} approaches its MLE value.

If we now rename $\frac{dL(\lambda_{it},Y_{ij(t-1)})}{d\lambda_{it}}$ as $L'(\lambda_{it},Y_{ij(t-1)})$, we can rewrite our estimation for $L(\lambda_{it},Y_{ij(t-1)})$ as:

$$L(\lambda_{it},Y_{ij(t-1)}) \cong L({\lambda_{it}}^{0},Y_{ij(t-1)}) + L'({\lambda_{it}}^{0},Y_{ij(t-1)})\,(\lambda_{it}-{\lambda_{it}}^{0}) \quad (5)$$

This approximation will become exact when the second part converges to zero. Using a time-varying smoothing parameter that changes not only through time but also among different households is the main characteristic of our model and that which makes it different from the previous research in this field.

Because extreme heterogeneity, where every household has a different smoothing parameter, may require too much information for our data to handle, we assume that similar household types can be grouped or clustered. By using the K-means method of data clustering, we can create *C* household clusters and calculate the smoothing parameter for each cluster separately. We estimate the number of clusters by the elbow point method (Kodinariya & Makwana, 2013) using a number of demographic characteristics and time-varying household characteristics to identify the clustering in each period. Appendix A explains this method in detail. For each cluster, similar to each household, we can write the loyalty function using (5) as a starting point, but replacing λ_{it} with $\lambda_{c(it)}$, which is the smoothing parameter for the cluster that household i belongs to at time t .

If we treat (5) as an equality and replace $L(\lambda_{c(it)},Y_{ij(t-1)})$ with $L({\lambda_{it}}^{0},Y_{ij(t-1)}) + L'({\lambda_{it}}^{0},Y_{ij(t-1)})\,(\lambda_{it}-{\lambda_{it}}^{0})$ within a mixed multinomial logit model with a utility function as (2) for each cluster separately using a rich data set with frequent buyers, we can estimate the following coefficient, β, which partially determines $\lambda_{c(it)}$:

$$\beta L(\lambda_{c},Y_{ij(t-1)}) \cong \beta L({\lambda_{c}}^{0},Y_{ij(t-1)}) + \beta L'({\lambda_{c}}^{0},Y_{ij(t-1)})\,(\lambda_{c}-{\lambda_{c}}^{0}) \quad (6)$$

We then use (6) to replace $L(\lambda_{c},\mathrm{Y}_{\mathrm{jt-1}}^{\mathrm{i}})$ in our mixed multinomial logit model:

$$\beta L(\lambda_{c},Y_{ij(t-1)}) \cong \beta L({\lambda_{c}}^{0},Y_{ij(t-1)}) + \beta' L'({\lambda_{c}}^{0},Y_{ij(t-1)}) \quad (7)$$

where

$$\beta' = \beta(\lambda_{c}-{\lambda_{c}}^{0}), \quad (8)$$

meaning the new smoothing parameter for each cluster is calculated as:

$$\lambda_{c} = {\lambda_{c}}^{0} + \frac{\beta'}{\beta} \quad (9)$$

In this way, we can accurately estimate different smoothing parameters for different clusters at any point in time.

To replace $L(\lambda_{c},Y_{ij(t-1)})$ using (6) we need both $L({\lambda_{c}}^{0},Y_{ij(t-1)})$ and $L'({\lambda_{c}}^{0},Y_{ij(t-1)})$. Calculating the loyalty variable based on the initial smoothing parameter is a simple recursive

function similar to what we described in (2). Here, can rewrite our function based on the new parameters as:

$$L_{ijt} = \lambda_c L_{ij(t-1)} + (1 - \lambda_c) Y_{ij(t-1)} \tag{10}$$

And if we replace $L^{i}_{j(t-1)}$ by its definition, (10) becomes:

$$L_{ijt} = \lambda_{c(it)}\left(\lambda_{c(i(t-1))} L_{ij(t-2)} + \left(1 - \lambda_{c(i(t-1))}\right) Y_{ij(t-2)}\right) + \left(1 - \lambda_{c(it)}\right) Y_{ij(t-1)} \tag{11}$$

As long as t and (t-1) are in the same period of time (i.e., the same three-month season), $\lambda_{c(it)} = \lambda_{c(i(t-1))}$ and we can rewrite (11) as:

$$L_{ijt} = \lambda_c\left(\lambda_c L_{ij(t-2)} + (1 - \lambda_c) Y_{ij(t-2)}\right) + (1 - \lambda_c) Y_{ij(t-1)} \tag{12}$$

Continuing this process and simplifying the results will lead us to:

$$L_{ijt} = (\lambda_c)^{t-1} L_{ij(1)} + (1 - \lambda_c)\left[\sum_{s=0}^{t-2} (\lambda_c)^s Y_{ij(t-1-s)}\right] \tag{13}$$

The initial period, or starting point, presents another analytic problem that requires one more assumption: Based on the definition we accepted for the loyalty variable, we assume that at the starting point the consumer has a similar brand loyalty toward all brands or:

$$\left(L_{ij(1)} = \frac{1}{n}\right) \quad , \tag{14}$$

where n is the number of brands. While our initialization is different from Guadagni and Little (1983), it is in line with Fader and Lattin (1992). Using (12) as a general form of (2) we can now estimate brand loyalty for any household at any point in time. In this paper, we are using (12) as the base of our calculations while Fader and Lattin (1992) have used a more restricted form of it. To estimate $L'\left({\lambda_c}^0, Y_{ij(t-1)}\right)$ we can now use (12) and find the first derivative of $L\left({\lambda_c}^0, Y_{ij(t-1)}\right)$ with respect to the smoothing parameter λ_c:

$$DL_{ijt} = \lambda_{cp} DL_{ij(t-1)} + L_{ij(t-1)} - Y_{ij(t-1)} \tag{15}$$

We can rewrite (14) using the same recursive form as:

$$DL_{ijt} = \sum_{s=0}^{t-2} (\lambda_c)^s L_{ij(t-1-s)} - \sum_{s=0}^{t-2} (\lambda_c)^s . Y_{ij(t-1-s)} \tag{16}$$

Using (15), we can calculate the derivative based on all these known elements. Equation (15) is similar to (12), and both are computable recursively based on the initial conditions and the available data. Thus, we can compute a smoothing parameter for each household and each period.

As an aside, it is now possible to investigate how the smoothing parameter just obtained is related to household characteristics by specifying an auxiliary equation of the following form:

$$\lambda_c = \gamma_0 + \gamma_1 Z_c + \gamma_2 S_c + \gamma_3 G_c + \gamma_4 X_c + \varepsilon\,, \quad (17)$$

where Z_c is a vector of cluster demographic characteristics and, S_c is a vector of seasonality and environmental variables, and G_c is another vector control for market location variables.

With our smoothing parameter calculated, we are now armed with an accurate brand-loyalty index, which we can then use in a brand-choice MML.

Based on (2), endogeneity arises when the unobserved ξ_{jt} correlate with price. We use the control function approach by Petrin and Train (2010) to correct for this potential price endogeneity bias. To implement the correction we first regress observed brand prices on the explanatory variables of our model and instrumental variables. Then, in the next stage, we use the residuals from the first-stage pricing regressions as proxies for any unobserved factors in each brand's demand that may be correlated with the respective brand's price. Here, we use Hausman instruments, i.e., the mean of prices of the purchased brand and other brands in markets from an outside region at the same time period.

Data

We use the Nielsen Homescan panel data on alcohol and cigarette purchases for this study. Our sample period runs from 2009 through 2010. Nielsen picks its sample of U.S. households to be geographically and demographically representative. Households use a home scanner to record purchases of food and related items, including the quantities purchased, the price paid, and the date. Purchases consumed before returning home are generally not scanned and thus missing from the data. Einav, Leibtag, and Nevo (2008) analyze the accuracy of the Homescan data but note that its shortcomings and errors are of the same order of magnitude as many other collected datasets.

The Homescan data provide detailed information on every transaction and a wide array of demographic characteristics for participating households. During 2009-2010, the data contain transactions for more than 2,700 different beer brands. Despite the great diversity among brands, 65% of transactions are related to the top 24 brands. Mostly for computational convenience, we focus on these 24 brands plus an outside option composed of all other brands.

Table 6: Alternatives and Marketing Variables

Brand Names	Full Sample			Frequent Buyers		
	Average Price/Oz	Discount	Market share	Average Price/Oz	Discount	Market share
Outside Option	$0.072	0.180	34.82%	$0.078	0.207	21.35%
BUD LIGHT	$0.064	0.220	9.96%	$0.067	0.310	4.93%
MILLER LITE	$0.062	0.228	7.60%	$0.065	0.126	7.65%
BUDWEISER	$0.067	0.187	6.84%	$0.077	0.149	11.16%
COORS LIGHT	$0.063	0.214	6.58%	$0.073	0.307	3.01%
NATURAL LIGHT	$0.047	0.161	4.86%	$0.054	0.181	9.40%
BUSCH LIGHT	$0.047	0.172	3.53%	$0.052	0.181	4.05%
MILLER HIGH LIFE	$0.049	0.156	3.32%	$0.058	0.284	3.63%
BUSCH	$0.049	0.140	3.11%	$0.054	0.199	4.70%

KEYSTONE LIGHT	$0.046	0.153	2.97%	$0.053	0.119	5.98%
MICHELOB ULTRA LIGHT	$0.076	0.167	2.69%	$0.083	0.199	1.50%
MILWAUKEE'S BEST LIGHT	$0.043	0.111	2.27%	$0.054	0.098	4.15%
HEINEKEN	$0.103	0.221	1.92%	$0.115	0.289	1.63%
MILLER GENUINE DRAFT	$0.065	0.238	1.90%	$0.073	0.010	0.77%
NATURAL ICE	$0.047	0.122	1.61%	$0.048	0.150	3.04%
MILLER GDL	$0.064	0.228	1.46%	$0.064	0.291	0.89%
MILWAUKEE'S BEST	$0.045	0.130	1.30%	$0.056	0.188	1.64%
MILWAUKEE'S BEST ICE	$0.043	0.117	1.04%	$0.054	0.125	2.08%
OLD MILWAUKEE	$0.048	0.064	0.57%	$0.053	0.018	0.85%
HAMM'S	$0.043	0.083	0.42%	$0.047	0.004	2.00%
STEEL RESERVE 211 HGL	$0.053	0.111	0.41%	$0.066	0.178	1.51%
MOLSON CANADIAN	$0.070	0.207	0.35%	$0.073	0.125	1.22%
KING COBRA MALT LIQUOR	$0.046	0.110	0.22%	$0.056	0.128	1.27%
OLYMPIA	$0.090	0.022	0.13%	$0.078	0.000	1.09%
HURRICANE HGL	$0.054	0.041	0.11%	$0.067	0.022	0.49%

Table 6 lists these brand choices and some summary statistics of the data. For our mixed logit model used to estimate the smoothing parameter, we need the full vector of prices faced by each consumer on each purchase occasion for all brands in the choice set. The Homescan dataset, however, records only the price paid by the household for the purchased brand. To overcome this empirical difficulty, we look for a series of matching prices. First, we look for purchases by other households from a similar store in the same region at the exact same week for each specific brand among our alternatives. If we fail to find a match with this method, we use the week's average state price for that brand for each purchase occasion. For our outside option, we similarly use the week's weighted-average price in each state.

In addition to a number of household characteristics collected directly from Homescan, we construct a number of transaction variables based on the Homescan purchase data. We record the price for each brand and construct variables related to beer type (or flavor), purchased volume, amount purchased on promotion, product container information, and ultimately a brand-loyalty variable.

Table 7 shows household characteristics that we use for clustering. Euclidean distance between clusters is used in k-means clustering. As the scales of product characteristics are different, we normalize the data so as not to artificially induce different weights for the characteristics. These variables identical to those used to control for the heterogeneity of the smoothing parameter.

Table 7: Household Variables

Variable	Mean	Std. Dev.	Min	Max
Household size	2.20	1.07	1	7
Household income ($)	44331	27549	0	+200000
Age of female head	39.60	23.97	0	+65
Age of Male head	48.93	17.73	0	+70
Female head employment (hours per week)	14.29	18.02	0	+40

Male head employment (hours per week)	23.79	18.74	0	+40
Male Head Education (if college education gained =1 if not=0)	0.59	0.49	0	1
Female Head Education	0.42	0.49	0	1
Marital Status (Married=1 not married=0)	0.31	0.46	0	1
Hispanic (Hispanic =1 not Hispanic=0)	0.06	0.24	0	1
Amount of beer per season (Floz per season)	7943	5744	72	40992
Amount of wine per season (Floz per season)	137	492	0	4844
Cigarettes per season (Total count per season)	893	1525	0	8000

We have some concerns that the reconfiguration of clusters could be the source of variation for the smoothing parameter, so we investigate this possibility. More specifically, we pick some of the clusters with a wide range of estimated smoothing parameters and look at them through time without allowing the cluster composition to change. As an example, we find similar results after identifying cluster number seven from season one and examining it over the next three seasons without changing the cluster members.

It is worth mentioning that to use time-varying, household-specific variables for the clustering algorithm, we first construct some variables from the Homescan data because many household characteristics directly found in the raw data are essentially constant (such as race or ethnicity) and still others would not change drastically among all the households during a period of two years (variables such as income, education or employment). So, to have a better understanding of behavioral changes among households, we construct household-specific, time-varying variables reflecting the amount of beer purchased per season, the amount of wine (as a substitute) purchased per season, and finally the amount of cigarettes (as a potential complement) purchased per period for each household.

Results

Brand loyalty index. To provide a sense of how our method results in smoothing parameters that vary across both households and time, we present a small sample of results, chosen randomly. Table 3 shows how the smoothing parameters for nine randomly chosen households with different characteristics vary over the eight three-month seasons, S1 – S8. Both these sample results and more complete tables in Appendix B show how households' loyalty behavior change through time and how the weight of the most recent purchases change over time. Lower magnitudes of smoothing parameters show suggest that a household would weight its recent experience more than its previous opinions across all households. For all households, the average value for the smoothing parameter is 0.7; yet Table 3 shows that individual households can exhibit strong deviations from this average value.

Table 8: A random sample of households' smoothing parameters through time

Household Id	S1	S2	S3	S4	S5	S6	S7	S8
1009	0.67	0.74	0.71	0.76	0.73	0.74	0.71	0.70
15039	0.7	0.73	0.66	0.73	0.74	0.78	0.73	0.69
4045	0.66	0.73	0.69	0.75	0.67	0.73	0.72	0.70
1007	0.66	0.73	0.69	0.76	0.67	0.73	0.72	0.70

1016	0.81	0.74	0.55	0.61	0.69	0.73	0.70	0.63
15231	0.74	0.81	0.72	0.80	0.75	0.75	0.75	0.71
4149	0.31	0.73	0.30	0.73	0.69	0.77	0.90	0.69
15030	0.71	0.67	0.72	0.76	0.74	0.71	0.65	0.74
15243	0.62	0.73	0.69	0.76	0.67	0.73	0.72	0.70
⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮
Mean	**0.66**	**0.73**	**0.68**	**0.73**	**0.72**	**0.75**	**0.72**	**0.73**
Min	0.31	0.66	0.30	0.61	0.65	0.71	0.62	0.63
Max	0.81	0.81	0.84	0.80	0.83	0.80	0.91	0.84

To investigate the smoothing parameters' relation to household characteristics, we estimate equation (17) and present the results in Table 4. As expected, the smoothing parameter is significantly associated with household demographics. Table 4 shows a significant negative association between the smoothing parameter and the marital status and household's average annual income. There is also a significant positive association between household size, age and education. We also find evidence of seasonal effects on the smoothing parameters and of how geographical location can affect how households weigh their previous experiences in comparison to their recent understandings of a brand. Drawing on Table 4's results, a marketing manager might conclude, for example, that a multi-membered, highly educated household living in the Northeast purchasing beer in the fall would be predicted to have a much higher smoothing parameter than single-member, poorly educated household from "other races" who lives in the South purchasing beer during summer.

Brand Choice. To fully understand the importance of heterogeneous smoothing parameters, we construct a comparison between our proposed brand-choice model that uses our new method and an alternative model that relies on common, constant smoothing parameters. Thus, we define two separate models on our beer market data of 2009-2010. Our preferred model uses our newly estimated smoothing parameters to calculate brand loyalty of every household for each household in every purchase date and adds this loyalty index to the MML brand-choice model. We compare this preferred model to a restricted model that incorporates a loyal index that relies on a constant smoothing parameter of 0.7, which was the constant in our regression, and the average of all smoothing parameters calculated through the two-year study period.[1] To account for potential price endogeneity, both the preferred and restricted models also include the estimated residuals from the auxiliary price equation that is part of the control function approach. For both our preferred model (Model I) and the restricted version (Model II), Table 10 shows the parameter estimates for the alternative variant variables and the value of the log likelihood function of these two models. (Parameter estimates for the alternative invariant variables are reported in Appendix B, Tables B1 and B2. Many of these alternative invariant variables are significant at the 1% level, including household size, income, age and education, among others. The effects of these variables on the probabilities vary among the brands.)

Models I and II lead to comparable results: Both models show the importance of including the brand-loyalty index in the choice model, along with the marketing-mix variable.

[1] This alternative model is in line with what most previous research. As Fadder and Lattin (1992) mentioned, simply choosing a suitable value of λ (usually between 0.7 and 0.9) and not to attempt to refine it has been a common procedure in this line of study. Examples include Lattin (1987), Gupta (1988), Kalwani et al. (1990) and Ortmeyer, Lattin and Montgomery (1991).

We also find that the residual terms are significant, thus showing the importance of accounting for price endogeneity. The negative price coefficient can be interpreted as a substitution effect among the brands (Krishnamurthi & Raj, 1988). The discount coefficient, significant and negative, which may seem unexpected, could be interpreted as a quality signal. Perhaps consumers consider promoted brands as not being fresh or of lower quality than non-promoted brands (Simonson, Carmon, & O'curry, 1994; Jacobson & Obermiller, 1990). Our coefficient of interest, on the brand-loyalty index, is significant with positive sign, and thus it increases the probability of the brand being chosen.

Table 9: Smoothing parameters and household characteristics correlation

Dependent variable:	Coefficient	Std. Err.
Household Size	0.076025***	0.0003484
Log of household average annual income	-0.0889941***	0.0006988
Max age in household	0.0007133***	0.0000301
Max education in Household	0.0688016***	0.0004199
Max working hours per person in Household	0.0010077***	0.0000125
Marital Status	-0.0645765***	0.0005793
Hispanic	-0.2613218***	0.0029278
Beer purchased per season (oz)	0.0000121***	5.29E-08
Black/ African American	-0.1554299***	0.0009408
Other races	-0.1400643***	0.0018311
Spring	0.025352***	0.0000933
Summer	-0.0161213***	0.0001186
Fall	0.0131471***	0.0000965
North East (Region 1)	-0.1838315***	0.001408
Central (Region 2)	-0.0912194***	0.0007899
South (Region3)	-0.1537506***	0.0009083
_cons	1.233973***	0.0059884
R-squared	0.398	
# Observations	1,454,675	

Note: Asterisks: (*) indicates significance at 10% level.
(**) indicates significance at 5% level. (***) indicates significance at 1% level.

While Models I and II lead to similar results, we next investigate in more detail the question of whether our preferred model performs better than the restricted version in a statistical sense. As an extra check, we also investigate the performance of a third, naive model, Model III, that omits the brand-loyalty index altogether.

Table 10: Brand choice models (Alternative Variant Variables) - Marketing Mix Variables

Models	Price	Loyalty	Discount	Can	Volume	IV Residuals	Normal SD (Price)	Likelihood	AIC	BIC
Model I : Varying λ										
	-31.00***	5.73***	-0.442***	1.317***	0.0574***	-1.91***	18.67***	**-40,324**	**81,095**	**83,813**
	(1.1E+0)	(2.1E-2)	(2.1E-2)	(3.2E-2)	(1.5E-3)	(8.4E-1)	(6.1E-1)			
Model II : Constant λ=0.7										
	-31.42***	5.52***	-0.47***	1.33***	0.059***	-1.48**	18.26***	**-41,305**	**83,056**	**85,775**
	(1.1E+0)	(2.3E-2)	(2.1E-2)	(3.2E-2)	(1.5E-3)	(8.3E-1)	(5.9E-1)			
Model III : No Brand Loyalty										
	-27.82***	-	-0.49***	1.9***	0.154***	-0.89*	17.08***	**-117,506**	**235,456**	**238,162**
	(7.4E-1)	-	(1.3E-2)	(2.2E-2)	(1.8E-3)	(4.9E-1)	(6.2E-1)			

Notes: Standard errors are in parentheses.

Asterisks: (*) indicates significance at 10% level.

(**) indicates significance at 5% level. (***) indicates significance at 1% level.

Number of Observations : 1,454,662

More specifically, we estimate goodness of fit statistics for the three different models. Table 10 shows that Models I and II, which include a brand-loyalty index, both outperform Model III, the naïve model. More importantly, we are interested in how Model I compares with Model II, and here we find that we have strong support for Model I. We focus mostly on the Akaike Information Criterion (AIC) and Bayesian Information Criterion (BIC), which test the additive explanatory power of the new brand loyalty variable. We find that the difference of 1962 in both AIC and BIC provides very strong support for Model I.

For the rest of the paper, our discussion focuses on Model I, the best-performing model. Using the results of Model I, we estimate the average elasticities of beer brand choice probabilities for household related variables. Table 11 presents the elasticities of choice probabilities with respect to various household-level variables. These figures can be interpreted as the percentage change in the probability that household *i* chooses brand *j* for a one percentage point increase in each variable. Based on our results, while higher income would result in higher likelihood for choosing the popular imported brand, Heineken, and the outside option, it decreases the likelihood of picking many of the top brands. Table 6 also reveals how age and employment are important factors in beer brand choices. An increase in employment hours and household size generally increases the likelihood of choosing one of these best-selling brands. We might interpret employment and household size as indicators of "business" that push consumers toward not searching and becoming less sensitive toward less well-known products like the outside options. On the other hand, it is interesting to observe how an increase in household education increases the possibility of picking an outside option. In other words, income and education are factors that can motivate searching for other options while more working hours and bigger households discourage this search.

Prices, promotional deals and brand-loyalty further determine which brand a household chooses. We estimate the probability elasticities for own and cross prices, discount and brand-loyalty and full set of results are provided in the Appendix B Tables B.3-B.5. The elasticities in these tables are best interpreted as the percentage changes in the probability of buying a particular beer brand following a one percent change in price, brand-loyalty, or promotional deals.

We summarize these elasticities by presenting, in Table 12, the average own elasticities with respect to price, loyalty and promotion. The results show that all brands have negative own-price elasticities, with the probability of change being the least elastic for OLYMPIA and the most elastic for the outside option and then BUDWEISER. Precisely, a 1% increase in the price of OLYMPIA would decrease the probability of choosing that brand by only around 0.1%, whereas a 1% increase in the price of BUDWEISER would decrease that choice probability by 3.6%. Most studies find the demand for beer in the United States to be relatively price inelastic, at around -0.3 (Ornstein & Levy, 1983; Ruhm, 2012), but when it comes to substitutes in the retail market, it seems the elasticity is much higher, as expected (Rojas & Peterson, 2008).

Based on the cross-price elasticities, the outside option captures most of the consumers who shift away from another brand due to an increase in the price of that brand. Although this is true, the distribution pattern is interesting. For example, a 1% increase in the price of Bud Light would decrease the probability of households buying Bud Light by 3.14% and, in turn, increase the probability of households buying the outside option by 0.56%. In this case the second place belongs to Budweiser with an increase of around 0.5%. But when looking at

slightly different product like Heineken, where we observe a 2.04% decrease as result of that one percent increase in price, the distribution changes drastically. This time the outside option captures more than one-third of the available market share (0.65%) and the second place goes to Bud Light, which is far behind (0.15%).

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Table 11: Elasticities of Choice Probability with Respect to Household Variables (Model I)

Variable	BUD LIGHT	MILLER LITE	BUDWEISER	COORS LIGHT	NATURAL LIGHT	BUSCH LIGHT	MILLER HIGH LIFE	BUSCH	KEYSTONE LIGHT	MICHELOB ULTRA LIGHT	MILWAUKEE'S BEST LIGHT	HEINEKEN	Outside option
Hhsize	0.0058***	-0.0072*	4.26E-03	0.0115***	-6.26E-04	0.0145***	-0.001***	6.85E-03***	-0.013***	1.8E-03***	8.21E-04	3.80E-05	-6.11E-03
LogIncome	0.017***	9.50E-03	5.63E-03	-0.027***	-0.014***	5.04E-03	-0.024***	-8.45E-03***	-6.39E-04	-2.12E-04	1.13E-02***	2.64E-03***	0.12***
Max age	-0.0006***	0.0015*	-0.0018***	8E-04***	1.20E-04	-1.00E-04	-0.0006**	-5.67E-04***	4.47E-04*	2.40E-05	-3E-04*	-4.44E-04***	3.13E-04
Max Emp	-4.40E-05	1.20E-04	8E-04***	9E-04***	-1.57E-04	-7E-04***	5.4E-04***	-6.50E-05	8.18E-04***	1.4E-04***	3.8E-04***	1.34E-04***	-1.31E-03***
Max Edu	-0.009***	-0.0172***	8.52E-04	-2.58E-03	3.6E-03*	-9.6E-03***	0.007***	0.01***	-0.013***	-3.40E-05	-3.44E-03**	-1.70E-05	5.04E-03
Summer	-2.28E-04	-6.31E-03	-1.75E-03	-6.10E-03*	0.0135***	5.62E-04	-4.96E-03	-2.96E-03	-1.80E-03	7.09E-04*	6E-03**	-2.14E-04	8.04E-03
African American	1.03E-01	1.86E-01	1.09E-01	1.28E-01	8.18E-02	0.070588	9.24E-02	6.93E-02	-1.53E-02	6.39E-03	6.25E-02	2.11E-02	4.24E-01
South Region	2.33E-02	-1.39E-02	4.57E-02	2.65E-02	6.27E-02	0.017526	5.78E-03	3.26E-02	1.81E-02	3.66E-03	1.14E-02	5.28E-03	1.10E-02

Notes: Elasticities for dichotomous variables are the percentage change in the choice probabilities when a variable changes from 0 to 1.
Asterisks: (*) indicates significance at 10% level. (**) indicates significance at 5% level. (***) indicates significance at 1% level.

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Table 12. Own Elasticities of Choice Probability.

Brands	Price	Loyalty	Promotion
BUDWEISER	-3.602	0.492	-0.0378
NATURAL LIGHT	-2.788	0.328	-0.0252
MILLER LITE	-3.003	0.360	-0.0277
KEYSTONE LIGHT	-1.986	0.305	-0.0235
BUD LIGHT	-3.139	0.292	-0.0225
BUSCH	-2.105	0.350	-0.0269
MILWAUKEE'S BEST LIGHT	-1.275	0.217	-0.0167
BUSCH LIGHT	-1.913	0.233	-0.0179
MILLER HIGH LIFE	-1.781	0.252	-0.0194
NATURAL ICE	-1.749	0.326	-0.0251
COORS LIGHT	-1.638	0.149	-0.0115
MILWAUKEE'S BEST ICE	-1.080	0.249	-0.0192
HAMM'S	-0.306	0.078	-0.0060
MILWAUKEE'S BEST	-1.212	0.104	-0.0080
HEINEKEN	-2.040	0.055	-0.0043
STEEL RESERVE 211 HIGH GVTY LG	-1.333	0.151	-0.0116
MICHELOB ULTRA LIGHT	-1.206	0.020	-0.0015
KING COBRA MALT LIQUOR	-0.309	0.004	-0.0003
MOLSON CANADIAN	-0.468	0.001	-0.0001
OLYMPIA	-0.092	0.002	-0.0001
MILLER GENUINE DRAFT LIGHT	-0.605	0.005	-0.0004
OLD MILWAUKEE	-0.696	0.061	-0.0047
MILLER GENUINE DRAFT	-0.887	0.039	-0.0030
HURRICANE HIGH GRAVITY LAGER	-0.866	0.062	-0.0047
Outside Option	-11.747	0.931	-0.0717

Note: All the elasticities are significant at the level of 0.01 or above.

Looking at the brand-loyalty elasticities, we see how intensely this variable affects the choices. In comparison to price and promotion elasticities, losing even 1% of a customer's loyalty can enormously harm a brand's sales.

Conclusion

We have shown that adding more heterogeneity to the smoothing parameter, which serves as the basis for a brand-loyalty index, is computationally feasible and adds to the explanatory power of an estimated brand choice model. Having an accurate way of estimating and measuring brand loyalty among households may primarily help manufacturers and retailers by allowing them to better target their customer base and estimating the impacts of brand loyalty. However, it may also help policy makers by allowing for more precise welfare estimation due to mergers that change the availability of brands.

We also believe that our model can be extended to other situations that require similar heterogeneity of state-dependent variables. For instance, enhanced heterogeneity could

facilitate polling by political parties, or simplify risk assessment for insurance companies, banks, and lenders. Thus, an important implication of our work is that it supports adding heterogeneity to other state-dependent variables in a very different empirical setting.

When it comes to the application of the model in the U.S. beer market, we see how brand loyalty strongly affects brand choices. Therefore, having an accurate measure of brand loyalty and knowing how it changes through time would help them optimizing their segmentation and targeting plans. In line with previous research, we find a strong impact from marketing mix variables like price, discount and volume.

The smoothing parameter is by definition the way households weigh their experiences through time. Using such a parameter can identify those who will remember and those who will forget. Here, more accurate information creates an invaluable tool for marketers, either for segmentation, targeting, launching a new product or even for rebranding.

While identifying a new time-varying smoothing parameter helped us achieve a higher accuracy, this achievement comes with costs. Estimating these new smoothing parameters is computationally time consuming and needs high processing power, especially when dealing with big data. Increasing the time period, the number of brands, or households under investigation, would all require additional computing power. However, if Moore's law holds and computing technology continues to improve in speedy fashion, then this burden will decrease in near future.

Appendix A: Clustering method and cluster analysis

The K-means clustering method (MacQueen, 1967) is an unsupervised learning clustering method. The algorithm classifies a given dataset based on a certain number of clusters. The main goal is finding groups in data with similarities in characteristics. Researchers started using K-means and other hierarchical cluster analysis for market segmentation during 1960s and early 1970s (Punj & Stewart, 1983). As a simple and efficient method of data clustering, it is yet popular among researchers for market segmentation (Huang, Grunert, Lu, & Zhou, 2015; Qin, 2010).

The first step is to define the number of groups (k) through some preliminary steps. Using an iterative algorithm, we assign each data point (in our case each household per season) to one of the groups based on their characteristics. Finally, we end up with the centroids of k clusters and the cluster members. Investigating the centroid characteristics, we can qualitatively interpret what kind of group each cluster represents. This way, instead of defining groups before looking at the data, we let a learning method create the groups in the data. The k-means method minimizes an objective function, in this case a squared error function. The objective function is:

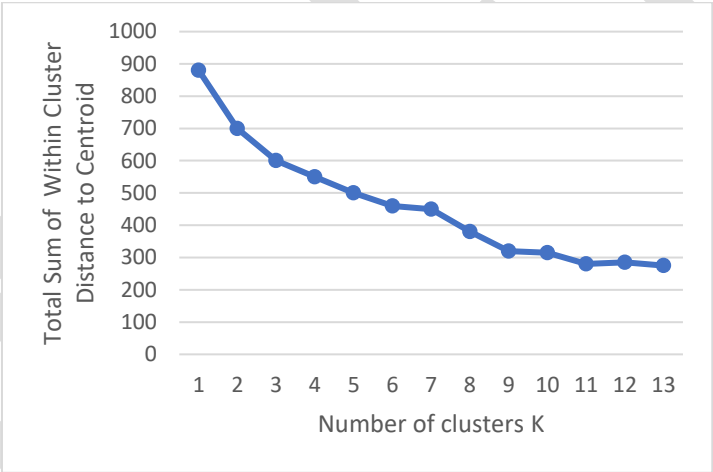
$$J = \sum_{j=1}^{k} \sum_{i=1}^{n} \left\| x_i^j - c_j \right\|^2$$

Where $\left\| x_i^j - c_j \right\|^2$ is the distance between a data point (a household) x_i^j and the centroid c_j. This function is a measure of distance of the *n* data points from their respective

centroids. Once the process is done and the clusters are defined, any new household can be easily assigned to the correct group.

Defining the number of clusters (*k*) is the critical starting point in this method. Generally, there is no short cut for finding the optimal *k*. The researcher should run the *k*-means method for a range of different values and compare the results. Here, we used a technique which is well-known as the "Elbow Point". One of the common metrics for comparing the results for different *k*values is total sum of distances (TSD) between data points and their cluster centroids\. Increasing the number of clusters always results in a lower TSD to the extreme of reaching zero and that is when *k* becomes equal to the number of data points (number of households per season in our case). This means trying to minimize the TSD will always result in choosing *k* to be equal to the number of data points. Instead, if we look at the marginal improvement on a graph where we plot TSD as a function of *k*, we might be able to define a *k* where the rate of improvement decreases sharply. This would be our optimal *k*. In graph A.1 a plot for our data indicates that optimal *k* would be either 6 or 9. As increasing the number of clusters is helpful, we choose *k* = 9 for our analysis.

Figure (A.1) TSD as a function of K



The next step is to assign each data point to the nearest *k* centroids, based on the squared Euclidean distance. We re-calculate the position of our centroids based on each potentially cluster membership. An iterative process compares distances of each successively new cluster membership, and this process continues until a stopping criteria is met. Stopping criteria include when no data points (household) change clusters, when the total sum of the distances is minimized, or when some maximum number of iterations is reached. It can be proven that no matter where you put the original centroids the algorithm will eventually converge, but the result might be just a local optimum and not the most optimal configuration, corresponding a the global objective function minimum. Divergence between local and global optimums can be reduced by running the algorithm multiple times. In our case we ran the algorithm 15 times to find the best local optimum.

We created a multidimensional space based on household demographic variables, seasonal amount of beer and wine consumption per household and household location. Categorical variable must be converted to binary variables. For example, our race variable is a binary variable if the household head is African American or not. In each season (every three

months starting January 2009) we divided our households into 9 clusters using the k-means clustering algorithm. Table A.1 shows the results of this segmentation. Here we are showing where the centroids of our clusters are standing in the household's characteristics multidimensional space. In every season we have formed nine different clusters with different members. The main characteristics that were changing through time were households' beer and wine consumption and in some cases income.

Table A.1: Cluster centroid's characteristics in eight different seasons

Season	Cluster	Num Of HH	Hhsize	Hhinc	Agef	Agem	Femp	Memp	Med	Fed	Race	Beer/ Season	Wine/ Season	Cigar/ Season	Division
1	1	56	0.58	0.76	0.76	0.78	0.28	0.30	0.82	0.91	0.05	0.26	0.14	0.26	0.25
	2	34	0.17	0.52	0.00	0.83	0.00	0.29	0.87	0.00	0.07	0.21	0.04	0.24	0.30
	3	23	0.52	0.55	0.88	0.90	0.25	1.00	0.72	0.88	0.04	0.14	0.16	0.13	0.21
	4	11	0.42	0.71	1.00	0.97	1.00	1.00	0.88	0.99	0.00	0.33	1.00	0.02	0.14
	5	16	0.19	0.12	0.87	0.00	0.59	0.00	0.00	0.94	0.08	0.66	0.02	0.28	0.25
	6	39	0.66	0.55	0.80	0.74	1.00	0.31	0.72	0.83	0.16	0.43	0.14	0.32	0.33
	7	4	0.00	0.48	0.00	0.92	0.00	0.58	0.90	0.00	1.00	0.22	0.16	0.02	1.00
	8	11	0.08	0.32	0.00	0.95	0.00	1.00	0.75	0.00	0.02	0.19	0.08	0.01	0.48
	9	12	0.74	0.12	0.93	0.88	1.00	1.00	0.64	0.82	0.10	0.22	0.00	0.20	0.39
2	1	12	0.07	0.24	0.00	0.96	0.00	1.00	0.75	0.00	0.12	0.32	0.12	0.03	0.52
	2	22	0.69	0.66	0.72	0.72	0.26	0.32	0.71	0.82	0.00	0.37	0.03	0.53	0.23
	3	39	0.15	0.52	0.00	0.83	0.00	0.30	0.87	0.00	0.12	0.19	0.03	0.19	0.34
	4	28	0.76	0.68	0.77	0.73	1.00	0.31	0.72	0.95	0.05	0.15	0.23	0.12	0.28
	5	23	0.52	0.43	0.98	0.93	1.00	1.00	0.76	0.90	0.05	0.35	0.36	0.10	0.26
	6	34	0.46	0.80	0.80	0.82	0.30	0.29	0.91	0.97	0.09	0.17	0.15	0.06	0.25
	7	11	0.49	0.45	0.84	0.75	1.00	0.31	0.72	0.70	0.27	1.00	0.00	0.72	0.30
	8	23	0.50	0.56	0.87	0.90	0.26	1.00	0.73	0.88	0.04	0.16	0.14	0.14	0.23
	9	16	0.20	0.10	0.86	0.00	0.63	0.00	0.00	0.93	0.10	0.74	0.01	0.21	0.25

Season	Cluster	Num Of HH	Hhsize	Hhinc	Agef	Agem	Femp	Memp	Med	Fed	Race	Beer/ Season	Wine/ Season	Cigar/ Season	Division
3	1	36	0.15	0.53	0.00	0.83	0.00	0.30	0.87	0.00	0.06	0.20	0.03	0.16	0.30
	2	23	0.58	0.55	0.86	0.90	0.26	1.00	0.73	0.87	0.04	0.17	0.17	0.14	0.27
	3	9	0.13	0.00	0.90	0.05	1.00	0.03	0.08	0.86	0.29	0.55	0.03	0.08	0.56
	4	11	0.08	0.31	0.00	0.93	0.00	1.00	0.75	0.00	0.02	0.31	0.08	0.04	0.40
	5	56	0.57	0.74	0.77	0.78	0.28	0.30	0.81	0.91	0.06	0.29	0.09	0.23	0.24
	6	38	0.60	0.58	0.82	0.78	1.00	0.31	0.73	0.85	0.12	0.39	0.20	0.28	0.29
	7	4	0.00	0.68	0.00	0.89	0.00	0.45	0.98	0.00	1.00	0.00	0.08	0.01	0.92
	8	23	0.53	0.43	0.97	0.92	1.00	1.00	0.76	0.91	0.04	0.42	0.25	0.09	0.24
	9	9	0.30	0.21	0.83	0.00	0.30	0.00	0.00	0.98	0.06	0.41	0.00	0.33	0.11
4	1	12	0.09	0.34	0.00	0.94	0.00	1.00	0.75	0.00	0.11	0.39	0.08	0.02	0.50
	2	18	0.80	0.67	0.69	0.67	1.00	0.32	0.70	0.97	0.05	0.21	0.15	0.09	0.13
	3	50	0.58	0.74	0.76	0.77	0.27	0.31	0.82	0.92	0.01	0.36	0.09	0.27	0.21
	4	17	0.15	0.05	0.90	0.00	0.67	0.00	0.00	0.92	0.14	0.56	0.03	0.18	0.27
	5	23	0.54	0.44	0.97	0.93	1.00	1.00	0.77	0.92	0.04	0.44	0.27	0.10	0.21
	6	39	0.13	0.50	0.00	0.83	0.00	0.30	0.86	0.00	0.11	0.18	0.07	0.13	0.34
	7	23	0.61	0.53	0.84	0.89	0.25	1.00	0.75	0.87	0.04	0.22	0.15	0.12	0.24
	8	9	0.65	0.76	0.85	0.81	0.55	0.30	0.76	0.80	0.59	0.48	0.04	0.11	0.52
	9	18	0.40	0.39	0.96	0.87	1.00	0.29	0.74	0.69	0.07	0.48	0.15	0.37	0.37
5	1	19	0.46	0.43	0.98	0.93	1.00	1.00	0.76	0.93	0.06	0.37	0.23	0.10	0.21
	2	4	0.00	0.62	0.00	0.89	0.00	0.50	0.97	0.00	1.00	0.12	0.15	0.00	0.90
	3	49	0.59	0.77	0.76	0.79	0.29	0.30	0.84	0.90	0.08	0.19	0.01	0.07	0.25
	4	37	0.56	0.59	0.85	0.80	1.00	0.31	0.74	0.85	0.12	0.38	0.06	0.22	0.29
	5	11	0.81	0.24	0.84	0.90	0.25	1.00	0.69	0.73	0.00	0.14	0.07	0.02	0.24
	6	17	0.13	0.03	0.90	0.00	0.64	0.00	0.00	0.90	0.13	0.54	0.02	0.21	0.21
	7	7	0.59	0.61	0.80	0.74	0.25	0.33	0.65	0.83	0.00	0.72	0.02	1.00	0.12
	8	12	0.35	0.79	0.87	0.89	0.25	1.00	0.83	1.00	0.07	0.31	0.05	0.16	0.35
	9	45	0.13	0.50	0.00	0.85	0.00	0.44	0.84	0.00	0.04	0.17	0.02	0.14	0.38
6	1	14	0.49	1.00	0.89	0.88	1.00	0.30	0.85	0.96	0.19	0.51	0.17	0.06	0.44
	2	56	0.57	0.74	0.77	0.77	0.29	0.31	0.82	0.89	0.06	0.28	0.01	0.25	0.24
	3	19	0.46	0.46	0.99	0.93	1.00	1.00	0.78	0.93	0.06	0.41	0.25	0.09	0.22
	4	38	0.13	0.53	0.00	0.83	0.00	0.30	0.88	0.00	0.10	0.18	0.03	0.15	0.33
	5	23	0.48	0.65	0.86	0.89	0.27	1.00	0.74	0.93	0.05	0.27	0.04	0.10	0.24
	6	17	0.15	0.06	0.89	0.00	0.63	0.00	0.00	0.92	0.12	0.39	0.01	0.17	0.23
	7	14	0.38	0.18	0.95	0.83	1.00	0.31	0.67	0.66	0.06	0.30	0.01	0.29	0.31
	8	9	0.92	0.56	0.62	0.63	1.00	0.33	0.60	0.95	0.08	0.18	0.00	0.22	0.03
	9	11	0.08	0.34	0.00	0.99	0.00	1.00	0.77	0.00	0.13	0.19	0.00	0.00	0.62
7	1	19	0.46	0.45	0.99	0.94	1.00	1.00	0.78	0.94	0.05	0.36	0.20	0.09	0.22
	2	17	0.12	0.00	0.92	0.00	0.64	0.00	0.00	0.91	0.13	0.47	0.00	0.21	0.24
	3	37	0.57	0.61	0.85	0.81	1.00	0.31	0.74	0.87	0.12	0.32	0.08	0.20	0.28
	4	4	0.00	0.50	0.00	0.90	0.00	0.57	0.94	0.00	1.00	0.19	0.10	0.00	0.90
	5	23	0.54	0.62	0.87	0.89	0.26	1.00	0.75	0.91	0.04	0.28	0.03	0.13	0.21
	6	56	0.60	0.75	0.77	0.78	0.29	0.31	0.81	0.88	0.07	0.30	0.01	0.23	0.23
	7	21	0.07	0.19	0.00	0.84	0.00	0.29	0.77	0.00	0.09	0.12	0.01	0.15	0.49
	8	10	0.08	0.37	0.00	0.99	0.00	1.00	0.78	0.00	0.01	0.13	0.01	0.04	0.55
	9	14	0.22	0.96	0.00	0.84	0.00	0.30	1.00	0.00	0.00	0.24	0.01	0.12	0.00
8	1	13	0.59	0.53	0.74	0.70	0.26	0.32	0.67	0.76	0.00	0.56	0.01	0.64	0.13
	2	19	0.46	0.46	0.98	0.94	1.00	1.00	0.78	0.91	0.06	0.28	0.09	0.12	0.27
	3	11	0.10	0.34	0.00	1.00	0.00	1.00	0.77	0.00	0.13	0.15	0.02	0.00	0.54
	4	37	0.12	0.55	0.00	0.84	0.00	0.29	0.89	0.00	0.08	0.14	0.01	0.08	0.28
	5	17	0.13	0.01	0.91	0.00	0.62	0.00	0.00	0.92	0.16	0.40	0.01	0.20	0.22
	6	10	1.00	0.96	0.60	0.60	0.26	0.33	0.79	0.99	0.00	0.09	0.05	0.00	0.46
	7	37	0.57	0.59	0.85	0.80	1.00	0.31	0.72	0.87	0.13	0.27	0.18	0.18	0.31
	8	33	0.50	0.83	0.84	0.87	0.30	0.29	0.89	0.95	0.12	0.11	0.01	0.06	0.20
	9	22	0.52	0.67	0.85	0.88	0.26	1.00	0.75	0.94	0.05	0.26	0.07	0.12	0.19

Note: Clustering has been done for every season seperately.this means, there is no relation between cluster one in the first season and cluster one in the second season and they are totally two different

Using different variables for male and female education, employment and age enables us to form some clusters in which we have single member households with more similarities. In table A.1, we have normalized all variables to be in a bracket of zero and one, where the interpretation zero and one in these variables is similar to minimum and maximum of that variable in that season. This way we could visualize the differences better. If we observe a centroid with zero household size it means in that season all the members of that cluster have had the minimum household size possible, which is one. In other words, all households in this cluster are single-member households. Our age variable has different empirics: a zeros for age means the household does not include either a male or female member, which happens most frequently for the single member households.

Appendix B: Estimated coefficients for alternative-invariant variables and elasticities

In the main body of this paper, Table 10 presents a partial set of estimated coefficients for alternative-variant variables from our mixed multinomial logit brand-choice model for the U.S. beer market, and Table 11 presents elasticities of beer-choice probabilities with respect to household-specific variables. In this appendix, we report additional results. More specifically, for our preferred model with heterogeneous smoothing parameters, Table B.2 presents estimated coefficients for alternative-invariant variables.

Table B.2 shows that how the effects of these alternative invariant variables vary among brands. For instance, while an increase in household size would increase the likelihood of Michelob Ultra to be chosen, alongside, the same growth will decrease the likelihood of Budweiser to be picked. Comparing the top 24 brands with the outside option, we found out how our results show a significant positive effect of education and income on picking the outside option. On the contrary, we see the significant negative effect of household size and employment on choosing the outside option. If we accept that household size and employment means less shopping time, that might explain how households might not brows different beer brand before shopping and rely on their previous knowledge of the market.

For comparison sake, we also present results from a similar model with a constant smoothing parameter. These results, presented in table B.3, are qualitatively very similar to those in table B.2. The main improvement in the first model is the significance of the estimated coefficients. For example, while based on table B.2 employment has a significant negative effect on picking the outside option, what we observe in Model II (Table B.3) is not a significant effect.

Tables B.4 presents a full set of own- and cross price demand elasticities. The elasticities in these two tables are the percentage change in in the quantity of the column brand with respect to a 1%change in the price of the row brand. In sum, all own-price elasticities are negative and statistically different from zero. The least elastic demand is for Molson and the most elastic for Budweiser.

From Table 10 and Table , we calculated the elasticities of beer choice probabilities for all the variables over all the households. The results ae presented in Table 11 and Table 12. The results in table B.4 and B.5 present the price and brand loyalty elasticities. We calculated the elasticities for own and cross brand. The results show that all brands have negative own price elasticities with probability of patronage being the least elastic for Canadian beer Molson and the most elastic for the Budweiser, if we set aside the outside option. Specifically, a 1% increase in the price of Molson would decrease the probability of picking that brand by just 0.0054%, where as a 1% increase in the price of Budweiser would decrease the probability of choosing that brand by around 1.9%. It is important to interpret these figures based on their market shares. In other words, if we observe a 10% increase in the price of Molson Canadian, the probability of choosing that brand will decrease from 1.22% to 1.2193% (0.054% decrease). Similarly, a 10% increase in the price of Budweiser would decrease that brand choice probability from its current probability of 11.16% to 9.03% (19% decrease). Looking at cross-price elasticities, we see that outside option captures most of the consumers who shift away from another brand due to an increase in the price. For example, a 1% increase in price of Bud Light would decrease the proportion of households buying that brand by 1.13% and, in turn, increase the proportion of households purchasing any outside option by 0.25% and those substituting Budweiser for Bud light by around 0.12%. Simultaneously, the proportion of households purchasing other beer brands would increase between only 0.0003% and 0.08%. These results follow from the fact that the probabilities that a household patronizes each brand for a given purchase must always sum to one. This implies that the sum of the elasticities across brands are zero.

Table B.1: Brand Names and their relative numbers

1	BUDWEISER	9	MILLER HIGH LIFE	17	MICHELOB ULTRA LIGHT
2	NATURAL LIGHT	10	NATURAL ICE	18	KING COBRA MALT LIQUOR
3	MILLER LITE	11	COORS LIGHT	19	MOLSON CANADIAN
4	BUD LIGHT	12	MILWAUKEE'S BEST	20	OLYMPIA
5	KEYSTONE LIGHT	13	MILWAUKEE'S BEST ICE	21	MILLER GENUINE DRAFT
6	BUSCH	14	HAMM'S	22	MILLER GENUINE DRAFT LIGHT
7	BUSCH LIGHT	15	STEEL RESERVE 211 HIGH GVTY LG	23	OLD MILWAUKEE
8	MILWAUKEE'S BEST LIGHT	16	HEINEKEN	24	HURRICANE HIGH GRAVITY LAGER

Table (B.2) Model I: Brand choice model with varying λ (Alternative Invariant Variables)

Variable	BUDWEISER	MILLER LITE	BUSCH	NATURAL LIGHT	KEYSTONE LIGHT	MILLER HIGH LIFE	BUSCH LIGHT	MILWAUKEE'S BL	MICHELOB UL	COORS LIGHT	HEINEKEN	Outside Option
Probability	9.80%	6.94%	6.74%	6.29%	5.82%	4.75%	4.38%	4.07%	3.59%	2.76%	1.00%	21.26%
Hhsize	-0.1788***	-0.04399	0.0647	-0.1152**	0.144**	-0.3156***	0.0512	-0.424***	0.406***	-0.07556	-0.1015*	-0.134***
	(6.2E-2)	(5.9E-2)	(5.7E-2)	(5.5E-2)	(5.8E-2)	(5.7E-2)	(6.3E-2)	(6.8E-2)	(6.9E-2)	(6.2E-2)	(6.1E-2)	(4.4E-2)
LogIncome	-0.214**	-0.23**	-0.712***	-0.5310*	-0.224**	-0.8102***	-0.5041***	-0.327***	-0.37***	0.099447	-0.0478	0.2393***
	(9.7E-2)	(9.2E-2)	(9.6E-2)	(9.1E-2)	(1.0E-1)	(9.7E-2)	(9.6E-2)	(1.0E-1)	(1.2E-1)	(1.3E-1)	(1.1E-1)	(7.3E-2)
Max age	0.0271***	-0.0142**	0.0232***	0.0132**	0.0095	-0.00165	-0.00164	0.0223***	0.0179**	0.000521	-0.0329***	0.0128***
	(6.1E-3)	(6.2E-3)	(6.4E-3)	(5.7E-3)	(6.2E-3)	(7.6E-3)	(6.3E-3)	(7.4E-3)	(7.9E-3)	(7.2E-3)	(7.9E-3)	(4.8E-3)
Max Emp	0.002003	-0.0106***	0.0138***	-0.00171	-0.011***	0.0121***	-0.00068	0.021***	0.0407***	0.0146***	0.0141***	-0.0054**
	(3.3E-3)	(3.3E-3)	(3.9E-3)	(3.3E-3)	(3.8E-3)	(4.1E-3)	(3.9E-3)	(4.3E-3)	(8.0E-3)	(5.2E-3)	(5.1E-3)	(2.8E-3)
Max Edu	-0.00852	0.1798***	0.129**	0.2254***	0.0028	0.3165***	0.4009***	-0.1506**	0.1578*	0.042984	0.1657**	0.1911***
	(6.3E-2)	(6.5E-2)	(6.6E-2)	(5.8E-2)	(6.7E-2)	(6.8E-2)	(6.7E-2)	(7.4E-2)	(8.4E-2)	(7.7E-2)	(8.0E-2)	(5.5E-2)
Summer	-0.06027	-0.02115	-0.0863	0.2184**	0.0137	-0.1001	-0.06353	-0.0403	0.2016	0.2247*	-0.0172	0.0419
	(9.6E-2)	(1.0E-1)	(1.1E-1)	(9.9E-2)	(1.1E-1)	(1.1E-1)	(1.1E-1)	(1.2E-1)	(1.4E-1)	(1.2E-1)	(1.2E-1)	(8.3E-2)
African/	0.05092	-0.273*	0.04518	-0.5485***	-0.636***	0.0961	-0.26392	-2.223***	-0.0683	0.41355**	0.2546	0.1477
American	(1.5E-1)	(1.6E-1)	(1.6E-1)	(1.5E-1)	(1.5E-1)	(1.6E-1)	(1.9E-1)	(4.3E-1)	(2.1E-1)	(1.6E-1)	(1.8E-1)	(1.3E-1)
South Reg.	-0.5612***	0.238**	-0.027	0.5761***	-0.11841	-0.2977**	0.3247***	0.0255	0.601***	-0.00782	0.1067	-0.3674***
	(9.8E-2)	(9.6E-2)	(1.0E-1)	(9.7E-2)	(9.8E-2)	(1.2E-1)	(1.0E-1)	(1.2E-1)	(1.5E-1)	(1.2E-1)	(1.2E-1)	(7.7E-2)
Constant	1.390672	2.995***	5.095***	3.811***	1.495	7.143***	3.101***	2.534**	-2.088	-2.05442	0.799	-2.895***
	(9.0E-1)	(9.5E-1)	(9.3E-1)	(8.9E-1)	(9.8E-1)	(9.4E-1)	(9.2E-1)	(1.0E+0)	(1.4E+0)	(1.3E+0)	(1.2E+0)	(7.4E-1)

Note: Standard errors are in parentheses.

Asterisks: (*) indicates significance at %10 level. (**) indicates significance at %5 level. (***) indicates significance at %1 level.

Table (B.3) Model II: Brand choice model with constant λ=0.7 (Alternative Variant Variables)

Variable	BUDWEISER	MILLER LITE	BUSCH	NATURAL LIGHT	KEYSTONE LIGHT	MILLER HIGH LIFE	BUSCH LIGHT	MILWAUKEE'S BL	MICHELOB UL	COORS LIGHT	HEINEKEN	Outside Option
Probability	10.05%	7.20%	6.79%	6.81%	5.92%	4.93%	4.61%	3.72%	3.66%	2.89%	1.05%	19.47%
Hhsize	-0.1056*	0.0248	0.162***	-0.014	0.198***	-0.21***	0.128**	-0.349***	0.419***	0.0039	-0.0333	-0.0341
	(6.1E-2)	(5.8E-2)	(5.6E-2)	(5.3E-2)	(5.7E-2)	(5.6E-2)	(6.2E-2)	(6.7E-2)	(7.0E-2)	(6.1E-2)	(5.9E-2)	(4.4E-2)
LogIncome	-0.237**	-0.284***	-0.785***	-0.586***	-0.207**	-0.817***	-0.601***	-0.331***	-0.33***	0.0822	-0.048	0.1642**
	(9.6E-2)	(9.0E-2)	(9.6E-2)	(9.0E-2)	(9.9E-2)	(9.5E-2)	(9.4E-2)	(1.0E-1)	(1.2E-1)	(1.3E-1)	(1.1E-1)	(7.3E-2)
Max age	0.0368***	-0.002	0.0322***	0.018***	0.012**	0.0088	0.006	0.028***	0.018**	0.0083	-0.023***	0.018***
	(6.0E-3)	(6.1E-3)	(6.3E-3)	(5.6E-3)	(6.1E-3)	(7.5E-3)	(6.3E-3)	(7.5E-3)	(7.8E-3)	(7.2E-3)	(7.8E-3)	(4.7E-3)
Max Emp	0.007**	-0.006*	0.0169***	0.00003	-0.01***	0.014***	0.0008	0.018***	0.04***	0.0169***	0.017***	-0.0029
	(3.3E-3)	(3.2E-3)	(3.9E-3)	(3.2E-3)	(3.7E-3)	(4.0E-3)	(3.9E-3)	(4.3E-3)	(7.9E-3)	(5.1E-3)	(5.0E-3)	(2.7E-3)
Max Edu	-0.0323	0.194***	0.145**	0.279***	-0.0003	0.32***	0.465***	-0.174**	0.231***	0.0661	0.17**	0.233***
	(6.2E-2)	(6.4E-2)	(6.6E-2)	(5.7E-2)	(6.6E-2)	(6.7E-2)	(6.6E-2)	(7.4E-2)	(8.5E-2)	(7.6E-2)	(8.0E-2)	(5.4E-2)
Summer	-0.0702	-0.0269	-0.1526	0.1628*	-0.0268	-0.1007	-0.0774	-0.082	0.2076	0.198	-0.04	0.00076
	(9.4E-2)	(9.9E-2)	(1.1E-1)	(9.8E-2)	(1.1E-1)	(1.1E-1)	(1.1E-1)	(1.2E-1)	(1.4E-1)	(1.2E-1)	(1.2E-1)	(8.2E-2)
African/	0.14652	-0.2652*	0.0586	-0.34**	-0.471***	0.163	-0.219	-2.18***	0.0812	0.5125***	0.353**	0.18
American	(1.5E-1)	(1.6E-1)	(1.6E-1)	(1.5E-1)	(1.5E-1)	(1.6E-1)	(1.9E-1)	(4.3E-1)	(2.1E-1)	(1.6E-1)	(1.8E-1)	(1.3E-1)
South Reg.	-0.593***	0.193**	-0.0913	0.4214***	-0.1306	-0.329***	0.2507**	0.147	0.479***	-0.0738	0.0015	-0.334***
	(9.6E-2)	(9.4E-2)	(1.0E-1)	(9.5E-2)	(9.6E-2)	(1.2E-1)	(1.0E-1)	(1.2E-1)	(1.5E-1)	(1.1E-1)	(1.2E-1)	(7.7E-2)
Constant	0.9254	2.59***	4.982***	3.70***	1.027	6.36***	3.25***	2.188**	-2.795**	-2.594**	0.0595	-2.92***
	(9.0E-1)	(9.3E-1)	(9.2E-1)	(8.8E-1)	(9.7E-1)	(9.3E-1)	(9.0E-1)	(1.0E+0)	(1.4E+0)	(1.2E+0)	(1.1E+0)	(7.3E-1)

Note: Standard errors are in parentheses.
Asterisks: (*) indicates significance at 10% level. (**) indicates significance at 5% level. (***) indicates significance at 1% level.

Table (B.4) Price Elasticities of Choice Probability for model I , part 1 (brands 1-12)

Brands	1	2	3	4	5	6	7	8	9	10	11	12
1	-3.602***	0.192***	0.157***	0.49***	0.159***	0.351***	0.135***	0.126***	0.128***	0.274***	0.096***	0.089***
2	0.138***	-2.788***	0.147***	0.141***	0.141***	0.169***	0.308***	0.152***	0.122***	0.185***	0.14***	0.101***
3	0.142***	0.194***	-3.003***	0.319***	0.136***	0.139***	0.138***	0.118***	0.18***	0.116***	0.093***	0.07***
4	0.475***	0.183***	0.32***	-3.139***	0.291***	0.119***	0.137***	0.073***	0.163***	0.083***	0.083***	0.06***
5	0.103***	0.139***	0.097***	0.194***	-1.986***	0.105***	0.094***	0.068***	0.067***	0.079***	0.144***	0.083***
6	0.238***	0.168***	0.103***	0.087***	0.111***	-2.105***	0.11***	0.114***	0.125***	0.097***	0.068***	0.061***
7	0.093***	0.309***	0.106***	0.103***	0.098***	0.11***	-1.913***	0.061***	0.073***	0.101***	0.065***	0.057***
8	0.077***	0.142***	0.083***	0.051***	0.066***	0.102***	0.057***	-1.275***	0.053***	0.066***	0.034***	0.064***
9	0.087***	0.122***	0.138***	0.128***	0.071***	0.119***	0.073***	0.058***	-1.781***	0.061***	0.04***	0.158***
10	0.169***	0.181***	0.085***	0.061***	0.083***	0.095***	0.096***	0.074***	0.059***	-1.749***	0.034***	0.079***
11	0.087***	0.179***	0.091***	0.082***	0.197***	0.091***	0.087***	0.049***	0.053***	0.045***	-1.638***	0.028***
12	0.057***	0.096***	0.05***	0.041***	0.083***	0.056***	0.054***	0.064***	0.15***	0.075***	0.02***	-1.212***
13	0.062***	0.071***	0.056***	0.037***	0.05***	0.059***	0.049***	0.048***	0.059***	0.079***	0.02***	0.057***
14	0.023***	0.021***	0.013***	0.012***	0.019***	0.022***	0.013***	0.013***	0.012***	0.016***	0.007***	0.008***
15	0.082***	0.091***	0.057***	0.04***	0.06***	0.072***	0.071***	0.053***	0.066***	0.091***	0.028***	0.042***
16	0.101***	0.117***	0.104***	0.15***	0.104***	0.094***	0.084***	0.075***	0.067***	0.067***	0.066***	0.042***
17	0.057***	0.076***	0.058***	0.075***	0.106***	0.064***	0.101***	0.048***	0.042***	0.041***	0.083***	0.02***
18	0.04***	0.012***	0.031***	0.026***	0.026***	0.017***	0.01***	0.004***	0.015***	0.013***	0.017***	0.006***
19	0.012**	0.016**	0.022**	0.018**	0.019**	0.016**	0.041**	0.007**	0.01**	0.012**	0.009**	0.003**
20	0.007	0.006	0.005	0.002	0.005	0.004	0.004	0.002	0.002	0.010	0.001	0.004
21	0.101***	0.039***	0.133***	0.042***	0.038***	0.045***	0.03***	0.029***	0.04***	0.035***	0.022***	0.02***
22	0.024***	0.033***	0.041***	0.111***	0.025***	0.027***	0.049***	0.025***	0.012***	0.014***	0.03***	0.011***
23	0.032***	0.121***	0.025***	0.049***	0.026***	0.03***	0.024***	0.019***	0.054***	0.017***	0.015***	0.013***
24	0.035***	0.06***	0.037***	0.023***	0.038***	0.048***	0.046***	0.043***	0.028***	0.057***	0.016***	0.044***
25	0.891***	0.882***	1.022***	0.766***	0.797***	0.788***	0.609***	0.423***	0.661***	0.641***	0.481***	0.495***

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Table (B.4) Price Elasticities of Choice Probability for model I, part 2 (brands 13-25)

Brands	13	14	15	16	17	18	19	20	21	22	23	24	25
1	0.101***	0.036***	0.109***	0.067***	0.053***	0.06***	0.012**	0.011	0.122***	0.024***	0.047***	0.044***	0.714***
2	0.075***	0.023***	0.087***	0.059***	0.05***	0.012***	0.011**	0.006	0.028***	0.025***	0.119***	0.053***	0.49***
3	0.082***	0.019***	0.074***	0.065***	0.05***	0.05***	0.02**	0.007	0.134***	0.039***	0.034***	0.047***	0.733***
4	0.055***	0.019***	0.052***	0.097***	0.063***	0.04***	0.016**	0.003	0.043***	0.101***	0.072***	0.029***	0.555***
5	0.052***	0.021***	0.054***	0.047***	0.067***	0.028***	0.012**	0.004	0.026***	0.018***	0.026***	0.032***	0.417***
6	0.065***	0.025***	0.068***	0.044***	0.041***	0.018***	0.011**	0.004	0.034***	0.02***	0.03***	0.042***	0.415***
7	0.055***	0.015***	0.069***	0.04***	0.066***	0.011***	0.029**	0.003	0.022***	0.037***	0.023***	0.043***	0.318***
8	0.048***	0.013***	0.046***	0.032***	0.029***	0.004***	0.004**	0.002	0.019***	0.017***	0.018***	0.036***	0.202***
9	0.068***	0.013***	0.063***	0.032***	0.029***	0.015***	0.006**	0.002	0.03***	0.009***	0.051***	0.025***	0.374***
10	0.086***	0.018***	0.086***	0.032***	0.026***	0.014***	0.008**	0.008	0.025***	0.01***	0.017***	0.05***	0.343***
11	0.028***	0.011***	0.036***	0.04***	0.071***	0.027***	0.008**	0.001	0.022***	0.03***	0.021***	0.019***	0.325***
12	0.057***	0.008***	0.037***	0.018***	0.012***	0.006***	0.001**	0.003	0.014***	0.007***	0.012***	0.037***	0.244***
13	-1.08***	0.013***	0.059***	0.018***	0.013***	0.007***	0.005**	0.005	0.018***	0.005***	0.013***	0.024***	0.242***
14	0.013***	-0.306***	0.013***	0.008***	0.004***	0.001***	0.004*	0.000	0.008***	0.003***	0.007***	0.003***	0.05***
15	0.068***	0.016***	-1.333***	0.019***	0.028***	0.011***	0.008**	0.004	0.011***	0.011***	0.024***	0.078***	0.291***
16	0.041***	0.02***	0.036***	-2.04***	0.045***	0.012***	0.021**	0.001	0.054***	0.019***	0.041***	0.025***	0.646***
17	0.022***	0.008***	0.044***	0.032***	-1.206***	0.003***	0.015*	0.000	0.017***	0.053***	0.013***	0.035***	0.185***
18	0.007***	0.001***	0.01***	0.005***	0.002***	-0.309***	0**	0.001	0.006***	0.001***	0.002***	0.001***	0.046***
19	0.009**	0.006*	0.01**	0.015**	0.014*	0**	-0.468**	0**	0.017**	0.005*	0.009*	0.007**	0.181**
20	0.006	0.000	0.004	0.000	0.000	0.001	0**	-0.093	0.003	0.000	0.000	0.000	0.015
21	0.027***	0.013***	0.014***	0.031***	0.014***	0.009***	0.016**	0.004	-0.887***	0.003***	0.02***	0.005***	0.147***
22	0.008***	0.005***	0.014***	0.012***	0.046***	0.001***	0.005*	0.000	0.003***	-0.605***	0.004***	0.007***	0.087***
23	0.014***	0.007***	0.025***	0.018***	0.008***	0.002***	0.006*	0.000	0.014***	0.003***	-0.696***	0.005***	0.158***
24	0.031***	0.004***	0.083***	0.013***	0.025***	0.002***	0.005**	0.000	0.004***	0.005***	0.006***	-0.866***	0.204***
25	0.485***	0.111***	0.509***	0.627***	0.248***	0.088***	0.247**	0.029	0.231***	0.135***	0.272***	0.308***	-11.747***

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Table (B.5) Loyalty Elasticities of Choice Probability for model I, part 1 (brands 1-12)

Brands	1	2	3	4	5	6	7	8	9	10	11	12
1	0.2919***	-0.0303***	-0.0208***	-0.0085***	-0.0043***	-0.0031***	-0.0021***	-0.0058***	-0.0034***	-0.0001	-0.0194***	-0.0214***
2	-0.0303***	0.4916***	-0.0367***	-0.0150***	-0.0077***	-0.0054***	-0.0038***	-0.0103***	-0.0060***	-0.000	-0.0343***	-0.0378***
3	-0.0208***	-0.0367***	0.3496***	-0.0103***	-0.0053***	-0.0037***	-0.0026***	-0.0071***	-0.0041***	-0.0001	-0.0236***	-0.0260***
4	-0.0085***	-0.0150***	-0.0103***	0.1494***	-0.0021***	-0.0015***	-0.0010***	-0.0029***	-0.0017***	-0.0000	-0.0096***	-0.0106***
5	-0.0043***	-0.0077***	-0.0053***	-0.0021***	0.0779***	-0.0007***	-0.0005***	-0.0015***	-0.0008***	-0.0000	-0.0049***	-0.0054***
6	-0.0031***	-0.0054***	-0.0037***	-0.0015***	-0.0007***	0.0552***	-0.0003***	-0.0010***	-0.0006***	-0.0000	-0.0035***	-0.0038***
7	-0.0021***	-0.0038***	-0.0026***	-0.0010***	-0.0005***	-0.0003***	0.0389***	-0.0007***	-0.0004***	-0.0000	-0.0024***	-0.0027***
8	-0.0058***	-0.0103***	-0.0071***	-0.0029***	-0.0015***	-0.0010***	-0.0007***	0.1038***	-0.001***	-0.0000	-0.0066***	-0.0073***
9	-0.0034***	-0.0060***	-0.0041***	-0.0017***	-0.0008***	-0.0006***	-0.0004***	-0.001***	0.0612***	-0.000	-0.00***	-0.0043***
10	-0.0001	-0.000	-0.0001	-0.0000	-0.0000	-0.0000	-0.0000	-0.0000	-0.000	0.0018	-0.0001	-0.0001
11	-0.0194***	-0.0343***	-0.0236***	-0.0096***	-0.0049***	-0.0035***	-0.0024***	-0.0066***	-0.00***	-0.0001	0.3279***	-0.0243***
12	-0.0214***	-0.0378***	-0.0260***	-0.0106***	-0.0054***	-0.0038***	-0.0027***	-0.0073***	-0.0043***	-0.0001	-0.0243***	0.3595***
13	-0.01***	-0.025***	-0.017***	-0.0073***	-0.003***	-0.0026***	-0.0018***	-0.0050***	-0.0029***	-0.0000	-0.0166***	-0.0183***
14	-0.0125***	-0.0221***	-0.0152***	-0.0062***	-0.0032***	-0.0022***	-0.0015***	-0.0043***	-0.0025***	-0.0000	-0.0142***	-0.015***
15	-0.0000**	-0.0001**	-0.0000**	-0.0000**	-0.000*	-0.0000**	-0.000**	-0.0000**	-0.0000*	-0.000	-0.0000**	-0.0000**
16	-0.0002***	-0.0003***	-0.0002***	-0.0001***	-0.0000***	-0.0000***	-0.0000***	-0.0000***	-0.0000***	-0.00000	-0.0002***	-0.0002***
17	-0.0135***	-0.0238***	-0.0164***	-0.006***	-0.0034***	-0.0024***	-0.0017***	-0.0046***	-0.0027***	-0.0000	-0.0153***	-0.0169***
18	-0.0002***	-0.0004***	-0.0003***	-0.0001***	-0.0000***	-0.000***	-0.0000***	-0.0000***	-0.0000***	-0.00000	-0.0003***	-0.0003***
19	-0.0180***	-0.0317***	-0.0218***	-0.0089***	-0.0046***	-0.0032***	-0.0022***	-0.0061***	-0.0036***	-0.0001	-0.0203***	-0.0225***
20	-0.0145***	-0.0256***	-0.0176***	-0.0072***	-0.0037***	-0.0026***	-0.0018***	-0.0049***	-0.0029***	-0.0000	-0.0164***	-0.0181***
21	-0.0193***	-0.034***	-0.0234***	-0.0095***	-0.0049***	-0.0034***	-0.0024***	-0.006***	-0.003***	-0.0001	-0.0218***	-0.0241***
22	-0.0011***	-0.0019***	-0.0013***	-0.0005***	-0.0002***	-0.00***	-0.0001***	-0.000***	-0.0002***	-0.00000	-0.0012***	-0.0013***
23	-0.008***	-0.0152***	-0.0104***	-0.0043***	-0.0022***	-0.0015***	-0.0010***	-0.0029***	-0.0017***	-0.0000	-0.0097***	-0.0108***
24	-0.0034***	-0.0061***	-0.0042***	-0.0017***	-0.0008***	-0.0006***	-0.000***	-0.0011***	-0.0006***	-0.0000	-0.0039***	-0.0043***
25	-0.0657***	-0.1159***	-0.0797***	-0.0326***	-0.0168***	-0.0118***	-0.0083***	-0.0225***	-0.0131***	-0.0003	-0.0744***	-0.0821***

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Table (B.5) Loyalty Elasticities of Choice Probability for model I, part 2 (brands 13-25)

Brands	13	14	15	16	17	18	19	20	21	22	23	24	25
1	-0.01***	-0.0125***	-0.0000**	-0.0002***	-0.0135***	-0.0002***	-0.0180***	-0.0145***	-0.0193***	-0.001***	-0.008***	-0.0034***	-0.065***
2	-0.025***	-0.0221***	-0.0001**	-0.0003***	-0.0238***	-0.0004***	-0.0317***	-0.0256***	-0.034***	-0.002***	-0.0152***	-0.0061***	-0.116***
3	-0.017***	-0.0152***	-0.0000**	-0.0002***	-0.0164***	-0.0003***	-0.0218***	-0.0176***	-0.0234***	-0.001***	-0.0104***	-0.0042***	-0.08***
4	-0.0073***	-0.0062***	-0.0000**	-0.0001***	-0.006***	-0.0001***	-0.0089***	-0.0072***	-0.0095***	-0.001***	-0.0043***	-0.0017***	-0.032***
5	-0.003***	-0.0032***	-0.000*	-0.0000***	-0.0034***	-0.0000***	-0.0046***	-0.0037***	-0.0049***	-0.000***	-0.0022***	-0.0008***	-0.016***
6	-0.0026***	-0.0022***	-0.0000**	-0.0000***	-0.0024***	-0.000***	-0.0032***	-0.0026***	-0.0034***	-0.00***	-0.0015***	-0.0006***	-0.011***
7	-0.0018***	-0.0015***	-0.000**	-0.0000***	-0.0017***	-0.0000***	-0.0022***	-0.0018***	-0.0024***	-0.000***	-0.0010***	-0.000***	-0.008***
8	-0.0050***	-0.0043***	-0.0000**	-0.0000***	-0.0046***	-0.0000***	-0.0061***	-0.0049***	-0.006***	-0.000***	-0.0029***	-0.0011***	-0.022***
9	-0.0029***	-0.0025***	-0.0000*	-0.0000***	-0.0027***	-0.0000***	-0.0036***	-0.0029***	-0.003***	-0.000***	-0.0017***	-0.0006***	-0.013***
10	-0.0000	-0.0000	-0.000000	-0.00000	-0.0000	-0.00000	-0.0001	-0.0000	-0.0001	-0.000	-0.0000	-0.0000	-0.0003
11	-0.0166***	-0.0142***	-0.0000**	-0.0002***	-0.0153***	-0.0003***	-0.0203***	-0.0164***	-0.0218***	-0.001***	-0.0097***	-0.0039***	-0.074***
12	-0.0183***	-0.015***	-0.0000**	-0.0002***	-0.0169***	-0.0003***	-0.0225***	-0.0181***	-0.0241***	-0.001***	-0.0108***	-0.0043***	-0.082***
13	0.251***	-0.0107***	-0.0000**	-0.0001***	-0.0115***	-0.0002***	-0.0153***	-0.0124***	-0.0165***	-0.001***	-0.0073***	-0.0029***	-0.056***
14	-0.0107***	0.2171***	-0.0000**	-0.0001***	-0.009***	-0.0002***	-0.0131***	-0.0106***	-0.0141***	-0.001***	-0.0063***	-0.0025***	-0.048***
15	-0.0000**	-0.0000**	0.0014**	-0.000000*	-0.0000**	-0.00000*	-0.0000**	-0.0000**	-0.0000**	-0.000*	-0.000**	-0.0000**	-0.0003**
16	-0.0001***	-0.0001***	-0.00000*	0.0037***	-0.0001***	-0.0000***	-0.0002***	-0.0001***	-0.0002***	-0.00***	-0.0001***	-0.0000***	-0.00***
17	-0.0115***	-0.009***	-0.0000**	-0.0001***	0.2328***	-0.0002***	-0.0141***	-0.0114***	-0.0152***	-0.001***	-0.0068***	-0.002***	-0.051***
18	-0.0002***	-0.0002***	-0.00000*	-0.0000***	-0.0002***	0.0050***	-0.0002***	-0.0002***	-0.0003***	-0.000***	-0.000***	-0.0000***	-0.001***
19	-0.0153***	-0.0131***	-0.0000**	-0.0002***	-0.0141***	-0.0002***	0.3049***	-0.0152***	-0.0202***	-0.001***	-0.0090***	-0.0036***	-0.068***
20	-0.0124***	-0.0106***	-0.0000**	-0.0001***	-0.0114***	-0.0002***	-0.0152***	0.2494***	-0.0163***	-0.001***	-0.0073***	-0.0029***	-0.055***
21	-0.0165***	-0.0141***	-0.0000**	-0.0002***	-0.0152***	-0.0003***	-0.0202***	-0.0163***	0.3255***	-0.001***	-0.0097***	-0.0038***	-0.073***
22	-0.0009***	-0.0008***	-0.00000*	-0.0000***	-0.0008***	-0.0000***	-0.0011***	-0.0009***	-0.0012***	0.02***	-0.0005***	-0.0002***	-0.004***
23	-0.0073***	-0.0063***	-0.000**	-0.0001***	-0.0068***	-0.000***	-0.0090***	-0.0073***	-0.0097***	-0.001***	0.1512***	-0.0017***	-0.033***
24	-0.0029***	-0.0025***	-0.0000**	-0.0000***	-0.002***	-0.0000***	-0.0036***	-0.0029***	-0.0038***	-0.000***	-0.0017***	0.0616***	-0.013***
25	-0.0562***	-0.0481***	-0.0003**	-0.00***	-0.0517***	-0.0010***	-0.0688***	-0.0556***	-0.0738***	-0.004***	-0.0330***	-0.0132***	0.9310***

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How the Small Business Institute Program® Helped Spark Entrepreneurial Interest at Two Universities

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Abstract

This article opens an exploration of how entrepreneurship programs in many universities got their start from the Small Business Institute® (SBI) student team consulting programs. It is a case study that documents the role played by the SBI programs at two schools, which resulted in the creation of an entrepreneurship major, a Center of Excellence, a named school, and many other activities. It discusses the kind of impact the Small Business Institute® has had on the overall entrepreneurial ecosystem, as the structure of the SBI program brings together local businesses, students, and faculty members, and the relationships that have formed have an influence on all participants. Using these two cases as examples, we argue that this interconnection between students, the institution, and the local entrepreneurial ecosystem is worthy of greater attention, and propose a method to do that.

Keywords: Entrepreneurship programs, Small Business Institute, Ecosystem

Introduction

With this article, we seek to open an exploration of how entrepreneurship programs in many universities got their start from the Small Business Institute® (SBI) student team consulting programs. We will begin by documenting the role played by the SBI programs at two schools, Rider University and East Carolina University, in the creation of an entrepreneurship major, a Center of Excellence, a named school, and many other activities.

The SBI was created by the US Small Business Administration (SBA) in 1973, and at its largest, involved more than 500 colleges and universities. Funded by the SBA, it proved to be a successful program not only helping small businesses with free consulting done by students under the guidance of business faculty, but also introducing many students to real-world entrepreneurship. Still, in fiscal year 1996, the SBA stopped the funding, and many institutions dropped out of the program (Heriot & Campbell, 2002).

In the early years, under the SBA, SBI assistance could only go to existing for-profit firms (who had to be over 2 years old) and who were in the University's SBA district. This was due to a contractual relationship between the SBA and school, and the schools received a fee for helping these firms. If a school wanted to help a non-profit, startup or a business in another SBA district, a school could do that, but would be doing so without compensation from the SBA for those projects. As the SBA was providing funding to the school's SBI to help approved companies (clients), these clients were not charged any fee (Heriot & Campbell, 2002).

When support by the SBA ended in fiscal year 1996, SBI schools were on their own to continue this type of outreach in some fashion, or discontinue it. By 2001, about only 115 institutions

were still members of the Small Business Institute® Directors' Association (SBIDA) which took over national responsibility for the program (Heriot & Campbell, 2002).

The loss of formal SBI programs had three major causes. First, without funding, some schools no longer did this type of activity, as the funding paid for the support staff needed to coordinate it as well as provided incentives for faculty to supervise student SBI projects. Second, since the value of this type of experiential learning (its focus on engagement and impact in the business community) was not emphasized by the premier business accrediting body, the Association to Advance Collegiate Schools of Business (AACSB) until much later, business colleges who either had that accreditation or aspired to it, would focus their attention on accreditation standards. Indeed, engagement and impact were not emphasized by AACSB until the 2013 changes to the AACSB Standards. Only then did they become two of the three pillars of accreditation (Abdelsamad, et.al, 2015)

Ironically, SBI programs were providing engagement and impact in the community, decades before 2013, and continue to create opportunities for institutions to demonstrate engagement, impact and innovation (AACSB International, 2018). One could argue that the SBI was way ahead of the profession in recognizing the importance of this type of learning.

Third, faculty at some schools continued/developed experiential learning programs in their classes without creating an SBI or belonging to SBIDA, so some of this experiential learning still occurred but it was "under the radar", as it was not formerly tracked.

However, our main focus of this article is not on if schools should have continued the SBI program after the loss of funding but instead, suggest how much of the growth of entrepreneurship discipline in colleges and universities can be traced to SBI funding that provided the seed for this discipline. We do so by focusing on case studies of two schools, one which was part of the initial SBI funding in the mid-1970s, and another that began shortly before funding was lost in the mid-1990s.

Rider University

Rider University's Small Business Institute® (SBI) program began in 1994. In the two years it existed before the SBA funding cut, the program proved its worth by offering students the opportunity to apply their classroom knowledge in the field by helping area small firms, and generating interest and good will between the University and the business community. When SBA funding was lost, Rider's SBI program continued, not only because of the proven value to firms and students, but because the student consulting activity had been built into a separate consulting class. The loss of federal support actually had some benefits as Rider's SBI could now address all types of firms in all stages of development, regardless of location (Rider is located in NJ but is only seven miles from PA, and PA is in a different SBA district).

The positive impact of sending Rider students to assist small firms in the area led to the first step towards creating an entrepreneurship program and center: developing an undergraduate entrepreneurship concentration. It began when one of the authors won an internal grant to develop additional entrepreneurship courses in 1996 (only 2 entrepreneurship classes existed prior to 1996, with one being the consulting class). This grant application noted the SBI's impact

as justification for the award. As a result, the entrepreneurial concentration was created. Demand for this concentration started to grow and further visibility of Rider's SBI helped in this process. For example, in 1999, a Rider SBI project became national champion in a student consulting project of the year competition conducted by the SBIDA. The resulting publicity generated more interest in entrepreneurship by students, and led to the creation of the undergraduate major in entrepreneurship, and the addition of more new undergraduate entrepreneurship classes in 2000.

In 2001, a new SBI class was created for the Masters in Business Administration and Masters in Accounting students. This expansion allowed Rider to help additional businesses and compete in more SBIDA-sponsored national student project of the year competitions. At approximately the same time, Rider began asking SBI client to make a donation to Rider's SBI program if they were satisfied with the students' analyses. Most of the firms did donate small amounts ($300-$500), which helped provide a small revenue stream that could be used to advance entrepreneurship. For example, during the 2000-09 time period, Rider participated in the annual New Jersey Collegiate Entrepreneur of the Year competition, and used these funds to support the entries. This competition recognized undergraduates who were running ventures while in college. Rider students placed or won this competition a number of times, resulting in further visibility for Rider.

This visibility helped the fledging entrepreneurship program fit into a broader College of Business Administration (CBA) theme. In 2005, the dean of the CBA created a defining message for the CBA and used the acronym "LIFE." LIFE stood for Leadership, International, Forensics, and Entrepreneurship, the four areas targeted in the CBA for growth. There were four centers of excellence created around each area and therefore, in 2005, Rider's Center for Entrepreneurial Studies was born. This umbrella structure housed the academic entrepreneurship curriculum and all the co-curricular activities/programs. New classes were created in international and green entrepreneurship. A unique class (to Rider) was developed, called Student Venture Experience (SVE), where the main purpose of the class was to launch a venture for academic credit. Further, this class had a seed venture fund tied to it, providing financial support for students to test their ideas.

These cumulative changes meant that students could now major in entrepreneurship, develop their ideas, and if they were ready, launch them while still in school. This "idea to launch" pathway was viewed as the ultimate entrepreneurial experience. The seed venture fund operated as a no-interest loan fund and was used as one of the three pillars to support student ambition: knowledge (coursework), resources (venture fund) and mentoring. The mentoring pillar also began when the Center was created. Volunteer business mentors would work with student entrepreneurs as they launched their venture ideas through this SVE class. Several of these entrepreneur-mentors were former clients of the SBI program.

All along this entrepreneurship evolution, the SBI program was an integral part of the process and a catalyst for change. A required fee structure was added to the SBI program, which guaranteed a small stable revenue stream to fund activities separate from the University's budget structure. This proved to be critical as the activities of the Center for Entrepreneurial Studies could easily outstrip the small operating budget provided by the University. Further, a former

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SBI student, now president of a local bank, became a corporate sponsor of the SBI. This was a five year commitment and was critical to providing additional revenues.

By 2010, nationally, the entrepreneurship discipline had grown and was often found outside of business colleges (Center for Entrepreneurial Excellence, 2014). Rider's program also evolved and in 2011, an entrepreneurship minor for non-business students was created. Simultaneously, while Rider's entrepreneurship program grew, its SBI program was continuing its excellence. For example, in 2014, Rider's student SBI teams, graduate and undergraduate, won national titles in their respective categories in the student consulting project of the year competition.

By fall 2013, the Center for Entrepreneurial Studies was growing steadily and it was time to create an advisory board. A recent survey of business advisory councils at AACSB member institutions found that these bodies have increased greatly over the last years as more and more institutions recognized the great value that they can deliver (Barillas, 2019). The Rider Center's board consisted of eight individuals, external to the institution, who had been active with Rider's entrepreneurship program. Most of the members were alumni. Not only were they available to entrepreneurial students, they were instrumental in determining another big initiative of the center: the High School Pitch competition. Each high school student entrant submitted a new business concept and all were evaluated by faculty and mentor judges. Finalists were brought to the campus to compete for prizes in front of business leader judges in a Shark Tank-like program. This competition increased the visibility of the Center and of Rider.

At roughly the same time (January 2014), Rider's SBI corporate sponsor (the aforementioned bank president) was interested in increasing its assistance to veterans. He reached out to the Center to see if Rider and the bank could cooperate and create an entrepreneurship program for the veteran community. With sponsorship from the bank, a veteran entrepreneurship training program was developed by the Center and was first offered in summer 2014 (Brown, 2014). Another valuable contribution from the advisory board was for these individuals to serve as mentors to the veterans in the program. This outreach activity was the first one offered by the Center where participants were not Rider students. This program continues today and has been helping veterans for 6 years.

By 2017, the high school competition had been running for 3 years, and it attracted the attention of an engaged alumnus, who was very impressed by the quality of the competition and decided to fund a full-tuition, four-year scholarship to Rider to the high school winner. With a full scholarship as the grand prize, a significant publicity push resulted in doubling the entrants and further increasing Rider's visibility.

The success of the high school competition then led to the idea that the Center should do this for existing Rider students. Hence, the Center created the collegiate concept competition, and followed the same format as the high school competition, but eligibility was current Rider undergraduate students. The first collegiate competition occurred in 2018, followed by another one in 2019. The popularity of the 2019 event (the number of entrants tripled and about half of entrants were non-business students) increased substantially, and the Center was able to find a sponsor who covered all costs for both years.

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As our programs grew, the Center also worked to increase the entrepreneurial ecosystem in New Jersey. Along with other New Jersey universities, a statewide competition was created, called U-pitch. Each participating school could send one student (or team) to this competition to pitch a new business concept. In 2018, Rider's entrant, Dowie Corp, won the Best Early Stage Startup category (Martinelli, 2018).

This consistent level of entrepreneurial growth brought the Center to the attention of an area entrepreneurship mentoring foundation, the Uncommon Individual Foundation (see UIF.org). The Foundation was interested in partnering with universities who had dynamic entrepreneurship programs. They decided to make Rider a satellite branch of the Foundation and sponsored two interns who worked on projects for the Foundation, and supported the Center activities. They also provided a technology grant that allowed the Center to create a Makerspace, now equipped with two 3-D printers.

The interest and excitement in entrepreneurship at Rider then prompted the alumnus who sponsored the high school competition scholarship to become even more engaged. He team-taught a class in entrepreneurship in the academic year 2018-2019, and in the fall of 2018, took six students and two Rider staff to the Inc 5000 conference, at his expense. It was such a successful activity that he will be doing it again in the Fall 2019.

Most recently, the Center got an opportunity to partner with St. Stephens Hall at Oxford University for an Innovation Intensive workshop, which happened in summer 2019. This program allows 25 CBA students to spend a week at Oxford, learning innovation and entrepreneurship practices from industry leaders, at no cost to them.

East Carolina University

A similar success story can be found at the East Carolina University Small Business Institute® Program (ECU-SBI). Like Rider's SBI, the ECU-SBI is an engagement program in the College of Business that provides specialized management assistance to small business owners, while providing senior level entrepreneurship students valuable practical experience. The ECU-SBI is one of the original SBI programs, having begun at the start of the SBA support in 1974. It is conducted through ECU's Small Business Management course, and students in this program have assisted over 620 clients since 1974.

The ECU-SBI's long running success has resulted in numerous national titles in the Project of the Year competition, placing nationally in the top three consistently over the past two decades. Hence, the college has long touted the success of our SBI as a way that ECU can help area businesses. As result, much like Rider's situation, the work of the ECU-SBI program help provide the foundation for the creation of the Miller School of Entrepreneurship in 2015, made possible by a five million dollar gift from an area entrepreneur, J. Fielding Miller, and his wife, Kim Grice Miller. The Miller School of Entrepreneurship serves as a regional hub for preparing students to take an entrepreneurial mindset and skillset into their communities. It's the only named school of entrepreneurship in North Carolina. In addition to its unique entrepreneurship curriculum, the Miller School links with key strategic partners to offer co-curricular programs that help serve as a catalyst for regional transformation. Having a named school of

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Entrepreneurship was the catalyst for a number of curriculum improvements and programs that are beginning or under development.

For example, starting fall 2019, the Miller School will offer the BS in Entrepreneurship (BSE), only the third university in North Carolina to offer this degree. The experiential nature of the ECU-SBI program drove the curriculum planning for this new degree. The BSE degree has a high level of engaged learning and is designed to provide students with a strong foundation in the entrepreneurial skillset and mindset needed to develop and launch a new venture. The primary target audience is students with a strong interest in entrepreneurship and related activities. These may include students involved in venture creation, product/service commercialization, or a career in an entrepreneurial organization.

Students completing the BSE in entrepreneurship will demonstrate knowledge of the entrepreneurial process to include opportunity and market assessment, entrepreneurial finance, marketing and strategy, and new venture launch. They will be able to separate ideas from opportunities, and develop the skills and knowledge to create new ventures and become involved in entrepreneurial organizations. They will also have opportunities to apply their entrepreneurial knowledge through experiential learning activities. This may include work on team-based projects, consulting opportunities, and internships.
Experiential learning will be featured substantially in this curriculum. Multiple courses, such as entrepreneurial strategy, small business management, and family business will feature interactive projects with regional clients, expanding the ECU-SBI model of engagement with the business community. Other courses, such as innovation and opportunity assessment, entrepreneurial business planning, and new venture launch, are based on engaging experiences where students create plans around their own entrepreneurial ideas and learn the process of launching a new venture. All of these interactive experiences will allow our students to develop the necessary entrepreneurial mindset and skillset to act on their ideas and create viable enterprises.
Upon graduation, the Miller School expects some of our students to become viable entrepreneurs and start new businesses. Others will use their skills and knowledge to forge an entrepreneurial career in either small businesses, family businesses, or even large corporations.

In addition to the BSE, the Miller School offers an Entrepreneurship Certificate available to any undergraduate student at ECU. This Certificate has been available since 2015, and has over 100 students enrolled. Having the Miller School has provided the catalyst for numerous other activities, including the Pirate Entrepreneurship Pitch Competition (with over $100K in prizes), the Summer Innovation Academy for high school students, and the Small Business Resource Center. The Center was recently endowed as the Crisp Small Business Resource Center, and it will provide students and the surrounding community with best practices and proven knowledge required to start and sustain enterprises in eastern North Carolina. Distinct Center activities include specialized research reports and grants, community workshops, and executive education offerings. In addition, the Crisp Center helps convert curricular programs in the Miller School into actionable ideas and ventures created by students from all academic fields. Efforts will focus on working collaboratively across campus and with regional partners to sponsor events for both the research and business communities.

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The Miller School is scheduled to move into the new 15,000 square feet Van and Jennifer Isley Innovation Hub in the heart of campus in 2021, which should further its appeal on campus. Other programs co-sponsored by the Miller School include the NSF-sponsored I-Corps program at ECU and the $1 million Golden Leaf grant that supports microenterprise development in eastern North Carolina. The Miller School also started an Entrepreneurs-in-Residence program in 2018 and now has three entrepreneurs serving in that role. All of these programs combine to make the Miller School a comprehensive School of Entrepreneurship, with a focus on experiential learning that has been embedded in our programs since the inception of the SBI in 1974.

Conclusion

These two cases are samples of the kind of impact the Small Business Institute® has had on the overall entrepreneurial ecosystem. The structure of the SBI program brings together local businesses, students, and faculty members, and the relationships that form have an influence on all participants.

In Rider's circumstance, the SBI program was the seed that grew into an entrepreneurship curriculum, programs, outreach and student success. Without that catalyst it would have been more difficult to get noticed; without SBI providing seed money, some of the other entrepreneurial initiatives would not have happened; without a solid foundation of success provided by the SBI, Rider's entrepreneurial program would likely not have gotten off the ground. It was an evolutionary process that was built, step by step.

At East Carolina University, the ongoing success of their SBI was the spur that helped convince a donor to create a school of entrepreneurship. This surge of support was more revolutionary than Rider's, and the end result is an explosion of new initiatives. However, although creating a new school appears to be a very sudden and dramatic event, having ECU-SBI as an economic force in the area for over 40 years laid the groundwork. Without the ECU-SBI, there would be fewer success stories for the University to tout, and less for the donor to notice. Further, the founding director of the Miller School was the ECU-SBI director from 2000-2019. This opportunity and honor would not likely be offered to him unless there was a good reason: the success of the ECU-SBI.

We hope that these examples will prompt other institutions to look back at the course of events related to their SBI programs. As Stephen Drew found in his review of centers in business school development, the largest number of centers in business schools are those associated with entrepreneurship (Drew, 2011). We agree with his observation that, "This likely reflects a concern of many US business schools with outreach to local economies and business communities" (ibid, p. 800). This interconnection between students, the institution, and the local entrepreneurial ecosystem is worthy of greater attention. We will be conducting a survey of SBI programs, and will capture the results in a follow-up article.

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An Overview of Typical Business Courses that Provide AACSB's Required Impact and Engagement

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Text

The Association to Advance Collegiate Schools of Business (AACSB) has developed new pillars of impact, engagement, and technological agility in its standards (A collective vision, 2017: AACSB Website, 2019). Many schools and colleges of businesses are attempting to discern what these mean and how to measure them. The authors did a survey of all their business courses at their college to determine what courses provide which of these pillars. Some courses provide both impact and engagement because they have high student engagement and have an external client or contact of some kind where the students are accountable to a person, client or entity other than their instructor. Courses at our college that meet this criteria include the SBI consulting class, internships, auditing (of a real client internal or external to the university), human resource management classes with a client, marketing research, service learning, personal selling, and volunteer income tax preparation.

Courses with high levels of student engagement include honors classes, global entrepreneurship, personal selling, social entrepreneurship, sustainability, and systems analysis and design.

As each school prepares for its periodic AACSB review, a survey of similar courses helps provide the data to verify how that school is meeting the criteria.

Conclusion

The current AACSB standards now require schools to determine their impact and engagement. This paper examines how our College of Business' various programs provide these elements. It is hoped that other schools will add to this discussion as our programs continue to evolve, develop programs with these elements, and broaden the discussion of how to measure them.

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Love of Work or Love and Work? Workaholism among Small Business Owners

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Abstract

Workaholism is a condition that can have jarring effects on business owning families. Workaholism is defined not by the number of hours worked, but by a set of behaviors that drive a business owner to work. Small business owners were classified as "workaholic" and "non-workaholic" using cluster analysis. A logit regression was used to determine what owner, family, and business characteristics were associated with workaholism in business owners. The probability of being a workaholic increased with household size, a male primary caregiver, and business first philosophy. Older and women business owners were less likely to be workaholics.

Keywords**:** workaholism, gender, work-family balance, small business

Introduction

Workaholism is an addiction that is not exclusive to one industry or one structure of business. Workaholism can occur in family businesses, small businesses, and large and small corporations. Stereotypes and previous research of successful business owners have a tendency to portray them as workaholics (Akande, 1994; Smilor, 1997; Gorgievski et al., 2010). However, there is scant research focused on small business owners and workaholism in the literature. Entrepreneurship literature has focused on how personal values orientation versus profit growth orientation affects performance, but few researchers have focused on workaholism (Gorgievski et al. (2011).

Measuring workaholism has evolved over time and with that, many scales exist. However, researchers agree that workaholism is an addiction (Oates, 1971), an addiction that is abundantly deeper than the number of hours worked (Spence and Robbins, 1992). Workaholism can be measured in terms of working excessively and compulsively (Bakker et al., 2014; Caesens et al., 2014; Gillet et al., 2017; Kravina et al., 2014). It can also be measured on the three following components: work involvement, drive to work, and work enjoyment (Andreassan et al., 2013).

Workaholism has effects on the family as well as the workaholic himself or herself (Bakker et al., 2009). Families are affected in negative ways by having a member who is a workaholic (Andreassen et al., 2013; Huang and Wang, 2013; Levy, 2015). Workaholism has different effect on men and women (Andreassen et al., 2013), just as wage effects are experienced differently between male and female parents (Bakker and Geurts, 2004; Benard and Correll, 2010; Budig and Hodges, 2010; Firestone et al., 1999; Gangl and Ziefle, 2009; Marshall and Flaig, 2014). The integration of the family and the business in small and family businesses has been studied in small and family businesses, but workaholism in relation to copreneurs and small business owners has received little attention. This study fills that gap by exploring the effect that family, business, and owner characters have on the proclivity of workaholism among small business owners. Specifically, small business owners were grouped by workaholism behaviors and hypotheses were formed to test if copreneurial structure, family/business functionality, household size, and gender were associated with workaholism among small business owners.

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Literature Review

Who Is A Workaholic?

The definition of a workaholic has transformed through research and new findings. Mosier (1983) characterized workaholics as those individuals working over 50 hours a week. However, being a workaholic is driven by more than the number of hours worked; it is a set of behaviors that classifies an individual as a workaholic (Spence and Robbins, 1992).

Workaholism is tied to family life and private life (Bakker et al., 2009). Spence and Robbins (1992) define workaholism "in terms of high scores on measures of work involvement and driveness and low scores on a measure of enjoyment of work" (pp. 160). Andreassen et al. (2013) measured workaholism based on the three components of work involvement, drive, and work enjoyment. Many studies measure workaholism by utilizing the Dutch workaholism scale (DUWAS), which consists of two separate subscales that measure working excessively and working compulsively (Bakker et al., 2014; Caesens et al., 2014; Gillet et al., 2017; Kravina et al., 2014). At the intersection of high activation and low pleasantness is workaholism, while burnout is found at the intersection of low pleasantness and low activation (Innanen et al., 2014). Some other studies measure workaholism by use of either the Compulsive Tendencies subscale of the Work Addiction Risk Test (WART) (Bakker et al., 2009; Huang and Wang, 2013), the Workaholism Battery developed by Spence and Robbins (WorkBAT; Spence and Robbins, 1992; Levy, 2015), or the Scale of Workaholism as Behavioral Tendencies (SWBT) (Hauk and Chodkiewicz, 2013). Aziz et al. (2013) created the Workaholism Analysis Questionnaire (WAQ), which was derived from the WART. The WAQ focuses on the imbalance between work and family resources, which is often caused by workaholism.

The WorkBAT (Spence and Robbins, 1992) was developed to categorize individuals as workaholics, work enthusiasts, relaxed workers, unengaged workers, enthusiastic workaholics, and disenchanted workers. The scales were based on driveness and work enjoyment and involvement and were further validated by McMillan et al. (2002). Spence and Robbins' (1992) measures of the workaholism triad are used in this study to define workaholism in small business owners.

Dumas and Perry-Smith (2018) measured work absorption from Rothbard's engagement scale. Being driven to work hard was found to differ between senior positions and junior positions (Innanen et al., 2014), as was the motivation behind feeling driven to work hard (Jackson et al., 2016). It seems while those in senior positions work hard to achieve more gains, those in lower level positions work hard to "avoid punishment" (pp. 118). Innanen et al. (2014) found similar results; finding high levels of workaholism at the beginning of educated persons' careers. However, workaholism was found to taper off as careers progress.

There are two ways of investigating workaholism; either by looking at variables that influence workaholism or looking at individuals' profiles to see what makes each of them a workaholic or not (Gillet et al., 2017). In their multinomial logistic regression, Gillet et al. (2017) identified four profiles that are different in terms of workaholism (very high, moderately high, moderately low, and very low). "Most desirable outcomes" (pp. 571) were found among lower levels of workaholism, characterized by less work-family conflict and more harmony in health and wellness. Well-being was inversely related to workaholism in studies by Caesens et al. (2014) and Shimazu et al. (2011). Other studies found that job stress (Spence and Robbins, 1992) and anxiety (Robinson, 1999) were higher in workaholics than in non-workaholics.

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The working definition of workaholism used in this study was premised on Spence and Robbins' (1992) measures of the workaholism triad. The workaholism triad includes work involvement, driveness, and work enjoyment. The variables used to place business owners into the categories of workaholic or non-workaholic were the extent to which: (1) family hinders the owner's progress at work, (2) the owner's work demands spill over into his or her family and hinder family time, and (3) business demands keeps the owner from participating equally in household responsibilities and activities. These three factors indicate workaholism and an imbalance between family and work.

Workaholism and Gender

There is little consensus in the literature related to the association between gender and workaholism. Andreassen et al. (2013) found that men and women experienced different effects from the spillovers that occurred between family and work. Women experienced "less negative family-to-work spillover and more positive family-to-work spillover" when compared to men (Andreassen et al., 2013, 81). However, Bakker et al. (2009) found no gender differences between workaholism and relationship satisfaction. They did find slightly higher work family conflict levels in male workaholics, but both genders reported more work family conflict when workaholism was present. Males and females who were categorized as workaholics had higher levels of job stress than their non-workaholic counterparts (Spence and Robbins, 1992). Male workaholics had higher levels of work-family conflict and emotional distress than female workaholics (Shimazu et al., 2011). Shimazu et al. (2011) also found higher levels of workaholism among men than women.

Literature surrounding workaholism and gender has not reached consensus. However, there is a body of literature surrounding marriage tax and fatherhood premium that has consistent findings (Astone et al., 2010; Hall and MacDermid, 2009; Bianchi et al 2000; Mattingly and Bianchi, 2003). This literature explores the wage advantages and disadvantages for men and women after marriage. For example, Marshall and Flaig (2014) found that married women worked more hours than did single women. They also found that married women made lower wages than married men; demonstrating that women paid the "marriage tax" more so than their male spouses (Flaig and Marshall, 2010). The marriage tax and fatherhood premium research may indicate that women perform a higher proportion of household tasks and childcare. These gendered roles around household tasks may also play a role in workaholism. Thus, we hypothesize that women are less likely than men to be workaholics (H1).

Workaholism and Household Size

Previous research has found a positive association between family status and workaholism. More negative spillover between the family and work units was present when there were children living at home (Andreassen et al., 2013). Individuals without a spouse and without children were less absorbed by work (Dumas and Perry-Smith, 2018). Dumas and Perry-Smith (2018) also posited the possibility that married individuals with children had a greater set of non-work demands, thus pushing those individuals to maximize their time at work. Thus, individuals with families and children, in order to maintain their positions at work, had to maximize their efficiency and focus both in and away from work.

A study of wage differences by Marshall and Flaig (2014) showed that self-employed women with children made 6% less wages than childless self-employed women. This phenomenon can be referred to as the "motherhood penalty" (Bakker and Geurts, 2004; Benard and Correll, 2010; Budig and Hodges, 2010; Firestone et al., 1999; Gangl and Ziefle, 2009; Marshall and Flaig, 2014). Comparing men and women with children yielded the result of a wage decrease for women with children but no such discussion was present for men (Flaig and Marshall, 2010). A study by Budig and Hodges (2010) found that mothers who made lower wages were more heavily "penalized' for having children, most likely due

to low wage jobs having lower levels of sick time and health benefits. However, women of all levels of income experienced some sort of motherhood penalty. Aranda and Glick (2014) found that while the motherhood penalty was present, it could be counteracted by placing priority on work (instead of family). In the same way that mothers receive a penalty for having children, men receive a wage premium for having children (Glauber, 2018). These premiums were found to be highest for the highest-earning fathers, while they were much lower for low- and middle-earners (Glauber, 2018). The literature related to family status and workaholism has led us to hypothesize that business owners with larger household sizes (more children) are more likely to be workaholics (H2).

Workaholism and Family Functionality

The issue with workaholism is that although it causes problems in business owning families, it is socially acceptable. In fact, workaholics are often perceived as hard workers (Yaniv, 2011). Work-family spillover and family-work spillover were correlated with work involvement, drive, and work enjoyment (Andreassen et al., 2013). Workaholism contributed to negative spillover from work to the family unit (Andreassen et al., 2013) and drove work-family conflict in both women and men (Bakker et al., 2009; Bakker et al., 2014). Huang and Wang (2013) found a stronger relationship between work-family conflict and workaholism in men than in women. Family satisfaction decreased as work-family conflict increased among couples studied by Bakker et al. (2014). Evaluating work-family conflict from an economics perspective where are scarce (labor, time, money) one would expect that workaholism would exacerbate the conflict between competing systems. Thus, as workaholics are completely engulfed in their work, the few resources available for the family continue to shrink and workaholism progresses (Bakker et al., 2009).

Workaholism is much larger than an individual issue; the problem can extend to a workaholic's spouse and family (Levy, 2015). Delving deeper into the literature reveals the vicious circle that often exists between marital estrangement and workaholism. One may come first, but then the two (marital estrangement and workaholism) feed off each other to create a deeper problem. For example, when marital estrangement exists, then work may come as a break from the marriage, adding to the workaholism and also placing more strain on the marriage. The opposite can also hold true; workaholics may push away their spouse by working, thus causing marital estrangement (Yaniv, 2011). Marital satisfaction is neutrally or negatively related to workaholism (Levy, 2015).

Camaraderie among coworkers had a negative effect on workaholism (Caesens et al., 2014). Workaholics have lower job satisfaction (Caesens et al., 2014) and life satisfaction (Innanen et al., 2014) than their non-workaholic counterparts. "Long working hours can lead families to become dysfunctional" (Kravina et al., 2014, pp. 880). Fisher et al. (2009) found that spillover from work into one's personal life caused high levels of conflict. High drive in employees was also found to be associated with higher levels of work-family conflict (Shkoler et al., 2017).

Gorgievski et al. (2010) found that business owners were more likely to have higher work engagement and work excessively than employees, but found no differences in their compulsion to work. Farm business-owning couples experienced high levels of tension surrounding work/family conflict. High levels of tension were also generated in regards to the distribution of family and business resources (Danes and Lee, 2004). Workaholics were more prone to work-family conflict and a compromised well being than relaxed workers (Shimazu et al., 2011). We hypothesize that copreneurial business owners are more likely than married, non-copreneurial business owners to be workaholics (H3).

The family and the business are ever-competing entities in both time, energy, and resources. There is no doubt that the household and the family overlap (Miller et al., 1999). The differences between

work and non-work factors are not the same as the differences between work and family factors (Fisher et al., 2009). Fisher et al. (2009) found that work spillover into personal life caused high levels of stress in workers and suggested that organizations have the power to limit the amount that work spills into employees' personal lives.

Tensions and family functionality are very closely related. Family functioning (measured by the family APGAR, (Smilkstein et al, 1982) and tension are negatively related (Danes and Lee, 2004). Rha and Stafford (2001) expanded on the use of the family APGAR scale by applying it to measure family satisfaction among business-owning families. Business owners who view the business as a lifestyle had different characteristics that drove family satisfaction than owners who viewed the business as an income source (Rha and Stafford, 2001). Lifestyle business owners worked more hours but also reporter higher family satisfaction than owners who viewed the business as an income source.

Workaholism affects the family unit, including spouses and children of workaholics (Robinson, 2001). While workaholism is not genetic, there are familial influences that can be passed down through generations. Kravina et al. (2014) found that adult children who grew up with fathers who worked excessively were more likely to work excessively themselves. However, the same was not true of working compulsively and of work engagement.

Nonetheless, workaholism and its effect on family functionality has been vastly understudied (Robinson, 2001). The effect on family functionality is far-reaching and can be present even after the workaholic tries to resist the addiction. For example, the workaholic's spouse may become immune to his or her absence after years of complaining. If the workaholic then tries to break his or her addiction to work, there may be growing pains of reincorporating the spouse back into the family's routine. Family and business functionality can be measured utilizing the FB-BRAG (Wiatt and Marshall, 2017), which is a combination of the family APGAR and work APGAR (Smilkstein et al., 1982). The "FB-BRAG measures family business balance, resolve, adaptability, and growth" (Wiatt and Marshall, 2017, pp. 1). Businesses are categorized as highly functional, moderately functional, or dysfunctional. We hypothesize that family/business functionality is inversely related to the probability of a business owner being a workaholic (H4). In other words, business owners with a highly functional FB-BRAG score are less likely to be workaholics.

Summary of Hypotheses

After review of the literature, the authors put forth the following hypotheses to be tested.

H1: Women are less likely than men to be workaholics.

H2: Business owners with larger household sizes (more children) are more likely to be workaholics.

H3: Copreneurial business owners are more likely than married (non-copreneurial) business owners to be workaholics.

H4: Family/business functionality is inversely related to the probability of being a workaholic.

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Methods and Data

Methods

Cluster analysis was used in order to place individuals into two groups, workaholic and non-workaholic. Cluster analysis creates K groups (as specified by the executor) and places individual observations into those groups. The groups are created based on the variables chosen by the researcher and are constructed so that variation or sum of squared errors within each cluster is minimized (Heng and House, 2018; Columbia University Mailman School of Public Health, n.d.). For this analysis, we classified business owners into two groups (workaholics and non-workaholics) and clustered them based on the extent to which: (1) family hinders the owner's progress at work, (2) the owner's work demands spill over into his or her family and hinder family time, and (3) business demands keeps the owner from participating equally in household responsibilities and activities. The workaholic indicator was subsequently used as the dependent variable in a logit model to analyze the owner, family, business, and family/business functionality characteristics associated with being a workaholic. The binary variable that was created from the k-means cluster analysis was then re-classified so that "1" indicated workaholics and "0" indicated non-workaholics.

(1) P (y = 1|**x**) = $G(\beta_0 + \beta_1 x_1 + \ldots + \beta_k x_k) = G(\beta_0 + x\beta)$, *where G is the linear probabilty function where 0<G(x)<1* (Woolridge, 2012).

A generalized logit model takes the form:

(2) $G(z) = \frac{\exp(z)}{[1+\exp(z)]}$ which represents the cumulative distribution function. This logistic function *G* takes on values such that $0<G(z)<1$.

Specifically, our workaholic logit model takes the following form:

(3) P (*workaholic= 1*) = $\alpha + \beta Owner\ demographics + \gamma Family\ characteristics + \omega Business\ characteristics + \mu Work/Family\ Balance$

Data

The data used are from the 2019 Small Business Values Survey (SBVS, Marshall and Wiatt, 2019). The SBVS surveyed small business owners in the United States on the topics of business and owner demographics, copreneurial activity, family and business functioning, work/family balance, and financial information. The SBVS was conducted in April 2019. The survey was built in Qualtrics and distributed through a third-party database company (Kantar formally LightSpeed). The 20-minute online survey was sent to business owners through Kantar.

The respondents were located using a database owned by LightSpeed Research (Kantar) for business owners in the United States for a total of 953 respondents. To qualify for the survey, respondents had to own their business, regardless of if it was a family business or a non-family business. From this

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sample of 953 respondents, the sample was initially drawn down to 910 respondents because 43 businesses were uncooperative or abandoned. From the cooperative sample of 910 businesses, 35 were not eligible because they were not business owners, leaving 875 qualified business owners. Two "attention check" questions were included in the survey to help enhance the quality of the collected data. The first attention check question dropped 312 respondents and the second attention check question dropped 52 respondents. The final sample consisted of 511 complete surveys.

The response rate was 58%. The response rate reported here is based on the number of completed surveys divided by the total number of people who started the survey, minus the number of uncooperative, abandoned, and ineligible cases. Due to use of LightSpeed's proprietary database, the total number of business owners in the sample and their rate of pay for survey completion is unknown.

This study's objective is to investigate how family, business, work traits, and owner variables interact to determine whether a business owner is a workaholic. To that end, only married business owners were included in the analysis. After culling for marital status and non-responses, there were 360 usable observations for the current study.

Cluster Analysis

Table 1 provides the variables and variable definitions for the cluster analysis. A cluster analysis was conducted and resulted in two clusters that resulted in a binary dependent variable for the logit analysis. The workaholic clusters were derived from the following three workaholic behavior indicators scaled from zero to four, where zero was 'not at all' and four was 'extremely': (1) To what extent do you feel as though your family hinders your progress at work?; (2) To what extent do you feel as though your work demands spill over into your family and hinder/prohibit your family time?; (3) To what extent do business demands keep you from participating equally in household responsibilities and activities? Thus, the dependent variable *workaholic* had two outcomes: workaholic or non-workaholic.

The two groups were statically different based on all three workaholism behaviors. The non-workaholic group was less likely (0.33 on a 5-point Likert-type scale) to state that family hindered progress at work compared to the workaholic group (2.42). The non-workaholic group was also less likely to state that family demands spilled over into their family and hindered their family time or that business demands kept them from participating equally in household responsibilities and activities. These statistically significant differences provided adequate evidence that these were two distinct groups of business owners.

Table 1. Descriptive Statistics for Clusters Base on Workaholism Behaviors

	Non-Workaholic Group (n=165)		Workaholic Group (n=195)		T-Test Significance Level
Cluster Variables	**Mean**	**Standard Error**	**Mean**	**Standard Error**	
family hinders progress at work	0.33	0.05	2.42	0.08	***
work spills into family time	0.79	0.06	2.70	0.07	***
business keeps owner from family demands	0.83	0.06	2.57	0.06	***

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Logit Model

The logit model consists of independent variables representing owner characteristics, family characteristics, business characteristics, and family/business functionality. Table 2 displays the independent variables and variable definitions. Owner characteristics consist of age, gender, education, and number of hours spent working. Family characteristics include number of children in the household and whether the primary caregiver the children is male or female. Business characteristics incorporate business age, business income, legal form of ownership and copreneurship.

Other variables included in the model are family business functionality (*FB-BRAG)* and the proportion of time that the business came before the family. Family business functionality is a scale that consists of the following four, 5-point Likert-type, questions: (1) satisfied you can turn to people at home and work for help when something is troubling you; (2) satisfied others in your family and business accept and support your ideas or thoughts; (3) satisfied with the way others in your family and business share time together; and (4) satisfied with the outcome when a decision has to be made in favor of what is best for the family versus the business.

Table 2. Definitions of Variables

Dependent Variable	**Definition**
workaholic	1 if workaholic behaviors cluster; 0 if non-workaholic behaviors cluster
Independent Variables	
age	owner age in 2019 (continuous)
female	1 if owner is female; 0 if owner is male
post-secondary education	1 if owner attended post-secondary school; 0 otherwise
number of hours worked (weekly)	number of hours the owner spends working or on work-related activities in an average week (continuous)
number of children at home	number of children living in the house under the age of 19 (continuous)
female primary caregiver	1 if the female is the primary caregiver for the children; 0 otherwise (including no children)
male primary caregiver	1 if the male is the primary caregiver for the children; 0 otherwise (including no children)
business age	business age (continuous)
business income	natural log of 2018 gross business income (continuous)
LLC, corporation or trust	1 if the business has a legal business structure of limited liability corporation, other corporation, or trust; 0 if the business is a sole proprietorship or a partnership
copreneur	1 if the owner and his or her spouse are copreneurs; 0 otherwise
FB-BRAG	scale from 1 to 5 measuring business functionality, where 1 is highly dysfunctional and 5 is highly functional

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business comes first percentage	percentage of the time that the business comes first (continuous between 0 and 100%)

Table 3 contains the descriptive statistics on the non-workaholic group and the workaholic group. Independent t-tests were conducted on the means of each variable for both the non-workaholic and the workaholic groups; significance levels are reported below. Statistically significant differences were vast among the means for the workaholic indicator variables between the workaholic group and the non-workaholic group. The age of non-workaholics was roughly 6 years higher than that of workaholics. Sixty- five percent of non-workaholics were female, while only 42% of workaholics were female. On average, workaholics worked roughly 6 more hours per week than non-workaholics. Workaholics had on average more children in the house, 2.17 children compared to 0.91 for non-workaholics. Workaholics were more likely to be copreneurs that non-workaholics. Non-workaholics had higher mean FB-BRAG scores than workaholics (higher levels of family/business functioning) and put the business first less than workaholics. Interestingly, there were not statistically significant differences in business age or business income.

Table 3. Descriptive Statistics for Variables in Logit Model

	Non-Workaholic Group (n=165)		**Workaholic Group (n=195)**		
	Mean	**Standard Error**	**Mean**	**Standard Error**	**T-Test Significance Level**
age	46.77	1.09	40.74	0.87	***
female	0.65	0.04	0.42	0.04	***
post-secondary education	0.84	0.03	0.88	0.02	
number of hours worked (weekly)	58.10	1.38	64.31	1.43	***
number of children at home	0.91	0.09	2.17	0.28	***
female primary caregiver	0.28	0.04	0.27	0.03	***
male primary caregiver	0.07	0.02	0.19	0.03	
business age	14.22	1.01	13.51	0.85	
business income	11.58	0.17	11.50	0.21	
LLC, corporation or trust	0.18	0.03	0.22	0.03	
copreneur	0.51	0.04	0.60	0.04	*
FB-BRAG	4.08	0.06	3.89	0.05	***
business comes first percentage	34.82	1.67	43.48	1.52	***

*T-tests were performed on means of workaholic and non-workaholic groups. Significance of those tests are indicated by 1%, 5%, and 10% levels; respectively (***, **, and *).*

Results and Discussion

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The logistic regression results of being a workaholic are shown in table 4. The logit consists of independent variables representing owner demographics, family characteristics, business characteristics, and family/business functionality. Business owner characteristics, family characteristics, and family/business functionality were associated with workaholism.

Business owner characteristics. The age of the business owners was negative and statistically significant. Older business owners were less likely to be workaholics. Gender was also statistically significant. As hypothesized, women were less likely to be workaholics (H1 supported). Past research among dual-earner Japanese couples found that males were more likely to be workaholics than females (Shimazu et al., 2011). The number of hours worked was statistically significant and increased the probability of being a workaholic. Workaholism is an inherent drive to work, both excessively and compulsively (Bakker et al., 2014; Caesens et al., 2014; Gillet et al., 2017; Kravina et al., 2014). Small business owners are likely to have fewer resources when compared to larger businesses and less ability to delegate (Akande, 1994). Thus, it is plausible that small business owners would have a proclivity to become addicted to work (Smilor, 1997).

Family characteristics. The number of children in the household was positive and statistically significant. Thus, the probability of being a workaholic increases as the number of children in the house increases (H2 supported). This result concurs with previous literature that fount a positive association between family status and workaholism. A result that warrants further investigation is the gendered primary caregiver variable. *Male primary caregiver* was positive and statistically significant, but *female primary caregiver* was not statistically significant. In other words, our results showed that when a primary caregiver is male, that business owner is more likely to be a workaholic. However, when the primary caregiver in the family is a female, that business owner is neither more nor less likely to be a workaholic.

Table 4. Logistic Regression Results for Being a Workaholic

Workaholic vs Non-Workaholic	**Coefficient**	**Standard Error**
age	-0.03***	0.01
female	-0.90***	0.25
post-secondary education	0.06	0.35
number of hours worked (weekly)	0.02**	0.01
number of children at home	0.23***	0.09
female primary caregiver	-0.07	0.28
male primary caregiver	0.77*	0.41
business age	0.01	0.01
business income	-0.03	0.05
LLC, corporation or trust	0.44	0.30
copreneur	0.11	0.25
FB-BRAG	-0.35*	0.18
business comes first percentage	0.02***	0.01
constant	1.45	1.25
Logistic regression (N=360)		
Log likelihood = -206.16		

Pseudo R2 = 0.1696

Business characteristics. We hypothesized that copreneurial owners would be more prone to workaholism because of the blurred line between work and family. However, the results showed that copreneurial owners were not any more or less likely to be workaholics. Our analysis did not return a statistically significant result for the variable "copreneur", although the sign was positive (H3 partially supported). These results concur with research by McDonald et al. (2017) that found that copreneurs had higher levels of relationship satisfaction than non-copreneurial couples. Higher levels of relationship satisfaction among copreneurs could indicate higher levels of family/business functioning. No other business characteristics such as business age or business income were statistically significant.

Family/business functionality. Business and family balance had a statistically significant impact on workaholism. *FB-BRAG* (a measure of family/business functionality) was negative and statistically significant as hypothesized. As FB-BRAG scores increase, the likelihood of being a workaholic decreases (H4 supported). Business owners were more likely to be workaholics, the more they chose to put the business before the family. As the proportion of time spent on the business versus the family increases, so did the probability that the business owner was a workaholic. This further demonstrates that having a positive family and business balance is crucial to avoiding workaholism. Work family conflict and other negative spillover can stem from workaholism and leach into the family unit (Andreassen et al., 2013; Bakker et al., 2009; Bakker et al., 2014; Huang and Wang, 2013). A summary of the hypotheses is as follows:

H1: Women are less likely than men to be workaholics. (Supported)

H2: Business owners with larger household sizes (more children) are more likely to be workaholics. (Supported)

H3: Copreneurial business owners are more likely than married (non-copreneurial) business owners to be workaholics. (Partially supported, sign is positive but not statistically significant)

H4: Family/business functionality is inversely related to the probability of being a workaholic. (Supported)

Conclusions

This study aimed to investigate family, business, and owner characteristics and their ties to workaholism among small business owners. Cluster analysis and logistic regressions were used to place small business owners into two groups (workaholic and non-workaholic), then to analyze the probability of individuals being in each of those two groups. This study makes significant contributions to the literature by exploring workaholism tendencies in regards to copreneurs and small business owners.

Our study among small business owners found that males were more likely to be workaholics than females. Traditional gender roles dictate that women are primary caregivers of the household and children. When women are primary caregivers for the children, fewer resources remain for work-related pursuits. Our results also show that when men are primary caregivers for their children their spouses are more likely to be workaholics, where when women are primary caregivers their spouses are not any more

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or less likely to be workaholics. Glauber (2018) found that fatherhood premium was the highest for higher earners. In other words, high-earning fathers benefitted more from having children (in regards to higher wages) than did low-earning fathers. Our results seem to further indicate that gendered specialization of household and childcare tasks continue to benefit men. Women may not only experience a marriage tax in terms of lower income but also may experience a higher tendency to be workaholics if they are the primary source of household income.

Business owners with lower business functionality are more likely to be workaholics, which poses the "chick or egg" conundrum. Workaholism often causes an imbalance of work and family for the individual affected (Aziz et al., 2013; Spence and Robbins, 1992). Owners with higher functioning business are less likely to be plagued by workaholism. Thus, it is in the small business owner's best interest to maintain a healthy work/life balance and to promote higher business functionality.

Delegating responsibilities is an important characteristic that can deter someone from becoming a workaholic (Spence and Robbins, 1992). Mean income was found to be higher among the non-workaholic owners than the workaholic individuals. This begs the question: why drive yourself to workaholism if the returns are not present? As a business owner, individuals may feel as though working long hours, putting work before family, and sacrificing family for work are the only ways to achieve success. However, family and business balance is very important to work and family harmony as well as overall owner/employee health (Caesens et al., 2014; Gillet et al., 2017).

Businesses can influence how much the business spills into employees' personal lives (Fisher et al., 2009). Moreover, business owners have significant power to influence the balance that they achieve. Putting the business first more often increases an owner's likelihood of being a workaholic, so it is in his or her best interest to try to find a balance between family and business demands. Higher functioning businesses also have lower chances of producing workaholic owners. As this study confirms, having a healthy work and family balance is imperative to avoiding workaholism.

Research has long identified that a healthy balance between the family and work is important. Workaholism is at the pinnacle of work and life imbalance. Businesses (and small business owners alike) have the ability to influence work-life balance for themselves and their employees (Fisher et al., 2009). A healthy work-life balance is imperative for small business owner wellbeing and business functionality as much stands to be lost in the wake of workaholism.

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Why Musicians Need Entrepreneurship Education
(After the Conservatory: Now What Do I Do?)

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Abstract

The classical music industry is over-saturated with extremely talented, highly-trained, conservatory and music school graduates. Very few salaried jobs or positions exist in the twenty-first century for a performance major, and most musicians are creating their own careers out of many different kinds of self-employed work. The particular focus of this paper is the entrepreneurial mindset and extra-musical skills musicians need and are using in their professional careers. This paper first briefly overviews the present-day music industry and then explores current research about the music industry and the perceived need for more skills amongst music graduates.

Keywords: Entrepreneurship, Entrepreneurship Education, The Arts

Over-Saturation in the Classical Music Industry

Every year, thousands of young musicians graduate from music conservatories and schools into an industry that is already fully saturated with employed musicians and overly saturated with musicians seeking employment. (For proof, one must only observe an orchestra audition, at which hundreds of highly trained and qualified musicians vie for a single – and often low-paying – position.) These conservatory-trained graduates in music performance have spent at least four years developing masterful technique on their instrument while studying the complexities of music by way of music theory and music history courses. This formulaic training regime, which has existed in current form since the late nineteenth century, may have been sufficient to ensure a sustainable career sixty years ago, but much has changed since then as a result of technological advances, ease of travel, speed of communication, and shifts in culture in the twenty-first century United States. Today, in a market where one is likely to encounter many highly qualified violinists competing for a single position in a low salaried orchestra, the chances of a musician being supported in her performance pursuits by an organization is speculative at best. How are these young musicians to support themselves and build careers in an industry that does not need one more violinist? Do these young musicians have any non-musical skills that will enable them to create new positions and new forms of income streams? It's clear that, moving forward, musicians will have to forge their own niches of opportunity.

Background

The conservatory of music today can trace its lineage back to the *conservatorio* of the sixteenth century – Italian orphanages at which music training was an educational focus. Over centuries, the notion of a school meant for preparing and training musicians into what we now consider a Conservatory of Music. The basic curriculum in contemporary conservatories has remained the same since the nineteenth century; performance, ear training, harmony, and sight-singing were the main areas of study then and remain so in the curriculum at present. In the twentieth century, additions to the curriculum included the history of Western music, the history of non-Western musical cultures (ethnomusicology), liberal arts courses, and various other non-musical electives (languages, art history, history of pop music, etc.).

Established curricula for the major conservatories in the United States include the following degree requirements, accompanied by the required number of credits in each category:

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Table 13

Degree requirements and range of credits required for graduation at conservatories

Subject	Range of credits
Major Instrument	16-28
Music Theory	14-21
Music History	7-14
Ear Training	4-8
Liberal Arts	12-24
Ensemble Studies (orchestral and chamber music)	10-22
Electives	6-17
Recital	0-1
Annual Jury	0

This information, collected from the catalogs of five of the most prestigious music conservatories in the world – The Juilliard School, the Manhattan School of Music, the Cleveland Institute of Music, the New England Conservatory, and the Eastman School of Music – illustrates the overall curriculum requirements for undergraduate string students attending one of these schools. The core requirements at these five conservatories are: individual lessons, music theory, music history, liberal arts, orchestra participation, and chamber music ensemble performance. Several elective credits are also required at each school, but these electives must often be fulfilled within the liberal arts, music theory, or music history departments. The amount of time students devote to practicing their instrument (range of 2-8 hours per day) (Ondracek-Peterson, 2013) is determined by each individual's needs and is not regulated in any way by the conservatories (individual teachers may attempt to regulate daily practice time through studio policies); another 15-30 hours per week for ensemble rehearsals is expected (Ondracek-Peterson, 2013) and in the case of the symphony orchestra requirements, is mandated by the degree program.

While it's clear that conservatories and schools of music recognize the importance of orchestral and chamber music, careers in these areas are most likely not realistic for the majority of degree-seeking musicians, even those attending these top conservatories in the nation. In my study, only 24% of graduates admit that an orchestral job is likely, but 50% believe this would be a very successful career for a musician (Ondracek-Peterson, 2013). How are students learning to prepare press kits, make recordings, organize concerts, and receive funding – the business fundamentals of a performance career? What additional, extra-musical skills are needed by conservatory graduates in the twenty-first century? Self-employment skills are essential to musicians since research shows (Bennett, 2008; Poklemba, 1995) that the likelihood of being a full-time music employee of a large organization, such as an orchestra, throughout an entire career is poor.

The Industry

In as broad a market as the music industry, it is first necessary to determine what constitutes a successful career for a wide range of conservatory students and the tools or skills they will need to achieve that career. Beckman (2006) states that higher education's most pressing issue in the arts is not how efficient and streamlined the production of new artists can occur, or simply fully employing the artists we train, or addressing bloated degree plans. Rather, the pressing issue is developing and nurturing an accomplished and successful artist who, through a reinvigorated sense of art's power to transform, can apply their talents to both strengthen communities and be financially solvent (Beckman, 2006). In a study that included interviews and surveys with 159 musicians, Bennett (2008) discovered that 82% of the participants teach, 70% perform, and 27% conduct ensembles. On average, the musicians engaged in 2.2 different roles, i.e. as both performer and teacher.

At the crux of the entire issue of careers in music is the fact that the job market is completely saturated (Beckman, 2004; Drapkin, 2006; Holland, 1985; Polisi, 2005; Gowen, 1986; Rogers, 1988;

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Tsung, 1991; Burge, 1988). The flooding of the job market in the classical music industry is not a new phenomenon, but rather has been a concern for the past thirty years, as is evidenced by articles written for publications such as the *New York Times, the College Music Symposium, Klavier, and Piano Quarterly*. Rogers (1988) states that a well-trained musician with a Bachelor of Music degree has about a one-in-three chance of possessing a *part-time* position, and it is very unlikely for musicians to hold full-time employment. Over the course of several articles published in the *New York Times*, Holland (1985) suggests that many more people are trained for "the top" than can be accommodated, creating an increase in the supply of trained musicians while the demand for them has remained the same, if not decreased (Holland, 1985). Conservatory graduates have recommended that current students be made aware of the limited job opportunities in the music performance field (Tsung, 1991).

The United States Department of Labor (2018) provides the following highlights of the occupation of musicians, singers, and related positions:

- Employment of musicians and singers is projected to show little or no change from 2018 to 2028. Growth will be due to increases in demand for musical performances. However, there will be tough competition for jobs because of the large number of people who are interested in becoming musicians and singers.
- The median hourly wage of musicians and singers is $28.39 as of May 2018 (was $22.39 in May 2011).

Career development among musicians has been a topic often discussed and presented at national and international music conferences over the last forty years, which indicates that scholars recognize the need for investigation in this field. However, very little research has been conducted, and even less is built upon previous research; this indicates that conservatories do not have in place graduate tracking mechanisms (unlike other professional schools) (Bennett, 2008; Poklemba, 1995; Beckman, 2004). Many advocacy articles exist that state the need for changes in curriculum or the addition of business courses or the acceptance of fewer students, but actual studies containing data acquired through quantitative or qualitative data collection tools are far fewer and scattered throughout myriad fields of research.

The Need for Inclusion of Entrepreneurship Courses

In an effort to combat the market saturation facing conservatory students upon graduation, a movement for the inclusion of entrepreneurship courses (Beckman, 2004; Drapkin, 2006; Mithaug, 2004) in arts education is gaining momentum. Although in the early stages of policy discussion, the need for entrepreneurs in the arts is fast earning recognition and supporters. Beckman, at the forefront of this movement, states:

> Music permeates our culture even more today than just ten years ago, due to technological advances alone. The challenge is to prepare students to operate within these underutilized and already existing markets. They should be taught not only to channel their natural creativity to meet this market need, but given the tools to develop new markets, which can translate into meaningful careers (Beckman, 2004, pg. 16).

Mithaug (2004) describes musicians as loosely fitting into two career approaches– those musicians looking for jobs within established organizations and those who prefer to create their own positions. Drapkin affirms the need for artists to create new demand for their art and to further that goal, he is working to develop a curriculum for music schools based on a business school model of entrepreneur courses (Drapkin, 2006).

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Bennett (2008) states that musicians of the twenty-first century need a broad base of skills and a certain amount of flexibility to "build and sustain" their careers:

> Holistic practice enables musicians to create and sustain intrinsically satisfying careers with the flexibility to meet changing personal and professional needs. Whether these realities are greeted by fear of the unknown or with excitement and preparedness is largely determined by informal and formal training experiences. However, the education and training of classical instrumental musicians is an unenviable task, occurring without a clear understanding of what it is that musicians do. How do musicians spend their time? Do they change roles, and if so, why, and how often? How much do they earn? Are music careers different for women and men? Is performance the only, or the ultimate, mark of success? (Bennett, 2008, p.1).

Topics presented and analyzed include worldwide cultural industries, cultural practice in the visual and performing arts, performance-based music education and training, and dilemmas and opportunities.

The music industry and the current musical culture, along with the actual roles of conservatory trained musicians actively engaged in the profession of music-making, must be investigated to determine what skills and non-musical knowledge string musicians require to thrive in the highly competitive music business. Bennett (2008) states,

> The requirement for musicians to have a broad base of skills has been widely accepted for some time; indeed, professional musicians have always engaged in multiple roles to remain financially viable, or for increased job satisfaction. Defining the composition of such a base of skills, though, requires understanding of the performance and non-performance roles of musicians and the extent to which music-related activities occur or are supported within the wider cultural environment (Bennett, 2008, p. 36).

Arts organizations, on the whole, function as non-profit entities, requiring external funding for the majority of their operations. Bennett (2008) states that many artists do not possess the skills and political knowledge to write budgetary proposals and fundraising asks, in addition to having inadequate training in community development and social improvement with which to successfully manage and maintain the funding requirements. Due to the self-employed nature of many musical careers and the fact that the majority of arts organizations are incorporated as not-for-profits, understanding the basics of raising funds and developing niches within geographical and cultural communities is a critical skill. Critics of conservatory education do recognize the difficulties in preparing graduates for careers outside of the conservatory, stating that achieving a balance between education and job training within a conventional education environment is unclear at best (McCarthy, Brooks, Lowell, & Zakaras, 2001).

Career development and support for conservatory students is a recognized need (as previously illustrated) and consequently most conservatories in the United States have an office of career development in some form. However, as suggested in the aforementioned research, an increasing number of musicians are graduating from conservatories and entering into their careers as professional musicians only to discover that their conservatory education appears to have failed to equip them with the knowledge and experience to help them be self-sufficient in the event that they are not employed by an organization such as a full-time professional orchestra (which appears to be a very unlikely outcome in the early twenty-first century).

In answer to the need for research and data regarding the non-musical education of musicians in the United States, Dr. Ondracek-Peterson (2013) conducted research that revealed information gathered from professional musicians who are graduates of conservatories, a hitherto unresearched professional population in the United States. The design of the study was a mixed-methods study,

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with both qualitative and quantitative data gathered, and a total number of 142 (survey = 122; interviews = 22) conservatory graduate participants. The results highlight those extra-musical skills that professional musicians in the 21st century recognize as vital to their careers. The remainder of this paper will focus on the results gathered from Ondracek-Peterson's research.

What skills are graduates learning on their own?

To delve further into the heart of the issue at hand – the creation and development of a successful and sustainable career as a musician in the twenty-first century – the graduates shared the skills they view as necessary for success, which parallel those same skills illuminated in the survey and highlighted throughout the literature (Beeching, 2010; Bennett, 2008; Highstein, 2003; Usher, 1995):

- Networking
- All the same skills needed to run a small business
- Marketing skills
- Fundraising skills
- Educational skills (outreach and pedagogy)
- Being well-rounded
- Being creative and knowing how to make one's own opportunities
- How to create a website
- Knowing how much musicians are worth (what they are being paid in the current economy for various jobs)
- People skills
- How to play well with others
- Self-promotion
- Learning from others and a willing to learn new things yourself
- Writing skills
- How to be efficient and organized
- Knowing how to fit your skills and interests into a niche for yourself in order to create a career
- Understanding how to structure legal entities such as for-profit and non-profit organizations
- Understanding how artist management works and how to develop a concert career
- How to make people excited about what you (as a musician) are doing
- Knowing what concert presenters want or need from the performers they hire, and how to parlay that into booking a concert

An important question to consider when discussing these extra-musical skills is, "Why are these extra-musical skills important? Don't I just need to be able to play my instrument well?" In the twenty-first century, instrumental virtuosity is unquestionably not the sole factor or skill needed for success. One participant explained his rationale for obtaining proficiency in these extra-musical skills:

> What if you're a musician who says, "I just want to play my instrument? Good luck. Yes, the days of just playing your instrument was when the orchestra world was just owned by a few people and those people owned radio stations, record companies, orchestras, artists, and the artist management. And it would be one person who had all those. So that was the age when they would pick somebody out and say, "You're great. We're going to make you a star." And the reason that worked is because they owned everything. They could make you a star overnight. And that was the era of the lucky break. Now it's a series of lucky breaks that build on each other to make a career. If you don't have an understanding of what's behind that, you're just being used. You might not think so for the first couple of years, but you'll figure it out sooner or later that you're just being

> used. That can happen and be a very positive thing if you have a background in understanding in how things work and are able to create a career and control things to a certain degree so that it keeps your options to do what you love open, rather than have you built into someone else's definition of success.

A significant refrain of Bennett's (2008) research is the need for artists to understand and engage in careers that fit within the broader context of the "cultural industries," which basically encompasses "The Arts" as a whole. An awareness of local, national, and international cultural environments will aid in the development of a successful and sustainable career in music (Bennett, 2008). Some of the conservatory-trained musicians interviewed for the study went further than Bennett to suggest that, from their perspective, classically-trained musicians need to understand how their skills and profession fit within the larger context of a national and international economy. The music industry is a business, and conservatory-trained musicians need to possess some understanding of the current consumer needs in the music industry and the economy in general in order to market their product. In another participant's opinion, the large majority of people simply do not care about classical music – the genre on which all conservatory-trained string players focus:

> The first thing is that we need to get over the fact that the vast majority [of the public] does not really care about classical music. You have to acknowledge that you have dedicated your life to something that billions of people don't care [about]. It's not a life-saving major. And you need to realize where classical music fits within the overarching music that exists in the world today. If you don't start from that place of taking away, "Oh, well, classical music is more special or pure," if you can approach it with your eyes open, you start to be able to make more realistic determinations about where you fit it within the overall scheme.

If the general consumer does not care about what conservatory-trained musicians are producing, these classically-trained musicians then must consider how they will earn a living. One frustrated musician's response is, "People need to stop [complaining] and do stuff. Yes, we are the most highly trained workforce in America in some ways, you know." Conservatory-trained musicians may be one of the most highly trained workforces in America, but again it comes down to one point: "How to make a sustainable career with a living wage within a profession that few people choose to support financially and have little interest in consuming?" There is the thought that work does indeed exist, but musicians in the twenty-first century must create the work themselves. As one musician comments:

> In essence, we're all running our own little businesses. There's a lot that goes into that, from working with the biggest philanthropists in the community to giving an outreach concert to people who have never heard a classical music concert before. There's such a wide range of skills needed to communicate with those different demographics […] There are accounting and money skills that come with this. Musicians have to do their own taxes […] Marketing, of course, we market ourselves for whatever we do, whether it's for orchestra or teaching or doing marketing for other people, there's a wide variety of skills outside of just performing that almost all musicians need.

This yet again leads back to the importance of identifying and developing those skills that are necessary to a musician in the twenty-first century.

What jobs are available to conservatory graduates?

Two types of salaried positions exist for conservatory graduates with degrees in instrumental performance (no additional skills or training required): professional orchestras and positions in higher education. Other salaried occupations, such as music therapist or K-12 educator, are not obtainable with

an instrumental performance degree alone and require further training. Considering the extremely high competition to secure a position in a professional orchestra or in higher education, developing extra-musical skills and not only acknowledging the challenges of the music industry, but fully internalizing the potential outcomes, is the only responsible path for young musicians.

Interestingly, when asked, musicians come up with lists of jobs that musicians can do, including: teaching, recording, arranging, music administration, performing, music therapy, composition, producing, freelancing/gigging, etc. However, they nearly always fail to realize that the actual skill set that is taught in the conservatory (or as part of any performance degree at a music school) is limited to performance, music theory, music history, and ensemble playing. A performance degree in music is not career training; instead, the degree creates serves highly-skilled individuals who must then figure out how to make themselves and their skills profitable.

Unless a musician procures one of the very few salaried positions, the likelihood is extremely high that they will be self-employed – freelancing, teaching, or piecing multiple different jobs together. Each musician becomes a small-business owner and the creator of her own career.

Entrepreneur

The current trend for graduates seems to be the creation of a new ensemble of one kind or another. Many of these groups are non-traditional in some way, whether it is instrumentation or the type of music they perform. As one musician points out, "There's a trend towards creating a sort of group that does something that's not traditional chamber music which is very exciting and often involves composition. But that's something that is really just beginning." This trend towards the creation of something new circles once again back to the idea of entrepreneurship in music and the skills needed to be an entrepreneur. Without the proper skills, the realization of these ensembles, no matter how well intentioned, cannot reach their full potential.

Many of the musicians defined "entrepreneur" as someone who makes their own job opportunities and uses their skills to find new or innovative ways to create work for themselves. Hannah took the view of an economist or business leader and urged musicians to look at how their skill sets can fit within a larger scheme, namely the U.S. and global economies: "Looking at the skills that you have while also looking at the need in an area in the community or in the business or in a group of people and trying to put those together."

A working knowledge of the job market and current industry trends are vital to the efficient use of any of these extra-musical skills. The graduates agree that the financial stability is simply not prevalent in today's job market and none of them perceive the market to be favorable for musicians. "It's hard – very hard. Just to make a living. I think there are plenty of opportunities…If you're looking for a pre-made job that you just apply for on the internet, then there aren't many" (Ben). Others stated that they would not advise anyone to go into a conservatory and expect that they could earn an income exceeding $100,000.

Hindering the Entrepreneur

Responses in Brodsky's (2006) study of orchestral musicians in England discovered that the musicians only learned about the music profession once they had graduated from music school and were immersed in trying to create a career, supporting the idea that students do not know of what life after school will offer. Why are students not presented with more knowledge about the world outside of the conservatory bubble? One musician believes private teachers (within the conservatory) themselves need to adjust their own perspectives and aid rather than hinder their students in their pursuit of successful and fulfilling careers (Ondracek-Peterson, 2013):

> My fear is that the biggest thing holding them [the students] back are the teachers, because you go to a conservatory and everyone I've talked to goes to their school because of the teacher…And if their primary teacher said to do this or that and forget about

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> everything else, that's what they'll do. And I've seen very few people very successfully throughout their school period keep up their own idea of what they should do if their private teacher has a strong idea of what they should do that is different. So, I think for it to really have the impact it really needs, it needs to come from them… And they have to learn how to communicate to their students the importance of learning these things, and the excitement and creativity and joy they'll find. Until that happens, it will be on the periphery and a real struggle, I think.

Highstein (2003) corroborates and identifies that musicians are not only inadequately prepared to meet the demands of the professional world, but are additionally handicapped by their teachers – teachers, and the general conservatory culture, only want students to focus on their art and practicing and to avoid thinking about other things, such as preparing for a career and life in music. In the Ondracek-Peterson (2013) study, all of the interviewed musicians admit that convincing current conservatory students of the need to more carefully consider their career paths while in school will be a challenge. Bennett (2008) argues that students need to understand why extra-musical and non-performance related skills are relevant to their careers in music, which would have to coincide with a change in the view of success not being based solely on being a performer. However, without full support and mentorship, the vast majority of students will graduate without even a small part of the requisite knowledge and extra-musical skills that graduates and working music professionals deem so invaluable to their careers.

Entrepreneurial Skills

Considering the list of extra-musical skills presented earlier, how many are entrepreneurial skills? One broad category that is often suggested by musicians is "business skills." Skills in this broad but basic category include: resume writing, bios, press kits (photographs, recordings, reviews, etc.), contract writing, and networking.

As small business entities, musicians need to possess the skills and abilities to conduct business in a monetarily positive, efficient, and legal manner. These skills include the following:

- Contracts
- Budgeting
- Organizational Skills
- Tax preparation and knowledge
- Establishing legal business entities

Other necessary extra-musical skills for the entrepreneurial musician include:

- Marketing/Advertising – Self-promotion
- Communication
- Website Design and Maintenance
- Fundraising
- Copyright and Trademark Law
- Grant-writing
- Graphic Design
- Social Media skills

These extra-musical skills take the talent of the musician and expands the possibilities of what can be done with that talent. Without fundraising skills, recordings of the musician will likely not be made. Without marketing and advertising, no one will know about the musician, her performance style, or her recordings. For both primary and supplemental income, a large majority of musicians teach in some

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capacity. To do this, they must have both pedagogical skills and the extra-musical skills to run a teaching business.

What are you worth?

Evaluating one's worth, especially in an industry where many professionals do not feel valued by society (Ondracek-Peterson, 2013), is challenging. Some musicians believe they should not go to a conservatory and expect that they could earn an income exceeding $100,000 (Ondracek-Peterson, 2013); others believe that earning $50,000 in annual income implies a successful career while representing difficult milestone to achieve (Ondracek-Peterson, 2013). There appears to be an imbalance between the level of training and skill required to be a conservatory-trained professional musician and the correlating monetary value, an issue that appears to require further research. Without an expanded skillset, particularly extra-musical skills, and without the vision of an entrepreneur, very highly-trained musicians are handicapped by both an extremely limited skillset and a mindset that undervalues the skills they do have.

Filling the Gaps:

Developing the Entrepreneurial Mindset

Every conservatory-trained music performance major is an entrepreneur, in the sense that they have accepted and assumed the risk, likely unknowingly, of investing in a business startup (their career in music) that may or may not succeed. Because this is the new reality of the classical music industry in the twenty-first century, music students must begin developing an entrepreneurial mindset by discovering that their talent and ability in music and instrumentally is not enough for a sustainable career. These musicians must become open to developing those extra-musical skills that will make a sustainable career in music possible.

Collaborating Across the Educational Landscape and Finding the Learning Gaps

Conservatories and most music schools are segregated in the sense that the degree programs do not allow for or include cross-discipline collaborations within the degree sequence. Students interested in other fields must either develop their own connections or declare a minor. Within the landscape of higher education, educators and administrators could discover or create meaningful opportunities to develop an entrepreneurial mindset through cross-discipline offerings and collaborations as well as consistently encouraging students to explore all of their interests while connect these interests with their personal and career goals.

Goals and aspirations must have some equal footing in reality. In addition to learning about music history, students must learn the history of the music industry – shifts in trends, technological advances, societal interest, cultural values, the relationship of appreciation for skill within societal education and awareness, etc. Without this understanding of the music industry in the twenty-first century, musicians will be challenged to find a niche or need that they could fulfill (Ondracek-Peterson, 2013).

The music profession is a profession that can bring fame and glory to some performers and bitterness and misery to others. Having the knowledge and understanding of the reality of being a professional musician before and during one's education may aid in a successful transition from the conservatory bubble into the real musical world.

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Learning Management Systems for Training New Global Employees

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Abstract

Learning Management Systems are becoming more prominent in the world of business. These platforms are used to link global teams in the pursuit of common organizational training and collaboration goals. Leadership can leverage Learning Management Systems to foster development, communication, and collaboration of global teams through training of new employees. Organizations can build or outsource the development of their Learning Management System. Considerations for key factors to promote global leadership and team development include the objectives of management and leaders, supports for global networks and teams, and facilitating team building and group interactions. These categories represent considerations for a minimum standard to successfully implementing a Learning Management System for a global company. The three LMS examined are examples of each type of system that the authors have experience using. The tools are considered options for supporting the chosen LMS system.

Keywords: Learning Management System, global leadership, team training

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Learning Management Systems for Training New Global Employees

In simple terms, a Learning Management Systems (LMS) is a software application or Web-based technology that is used to plan, create, deliver and assess specific learning content. Learning management systems may provide students with the ability to use interactive features such as blogs, discussions forums or video conferencing calls. With the wider acceptance of LMS platforms, they have evolved from simple technology to cloud-based systems that employees in an organization located anywhere in the world are able to access and interact with.

Training of employees has become very important for organizations in order to keep up with the rapidly changing business environment. In order to remain relevant and competitive, organizations have begun to realize the importance of offering training and upgrading courses via a "learn at your own pace" solution to their employees. Talent development is an integral part of a good LMS. A good LMS will offer solutions to meet the increasingly diverse workforce. 95% of employees would stay with a company longer if the organization invested in their career development, according to LinkedIn's Learning's 2018 Workplace Learning Report. In the same report, and shown in Figure 1, it stated that 68% of employees prefer to learn at work and 58% preferred to learn at their own pace (LinkedIn Learning with Lynda.com Content, 2018).

Figure 1: Workplace Learning Report (LinkedIn Learning, 2018)

According to Kumar (2018), a good LMS should be able to offer what the future holds for e-learning:

- Adaptive learning;
- Artificial Intelligence (AI),
- Virtual Reality (VR) and Augment Reality (VR) learning,
- Social learning,
- Micro-learning;
- Gamification;
- Content Curation.

Other areas to review include ease of navigation, deployment, good 24-hour technical support, pricing and flexibility, adequate storage, and the ability to provide data analytics. The system should be customizable with availability in multiple languages to cater to a global audience.

There is no doubt that an online, interactive e-learning system will improve the education experience. However, there are many LMS available and choosing one that caters to an organization's needs is vital. This is a white paper that explores three broad based types of LMS with an example of each that the authors have experience using. Moodle is an open source system offering downloadable and modifiable software that can be used free of charge. The Defence Learning Network (DLN) was self-developed by the Canadian Armed Forces. Docebo is a commercial system with closed architecture and a fee for its usage. The paper compares their capabilities, customer and administrators' experiences, the business areas they are more useful for, costs, accessibility and the industry standards for LMS. In the end, there is a recommendation for the must-have features that support leadership, training development, communication.

LMS 1: Moodle

Moodle (an acronym for modular object-orientated dynamic learning environment) is an LMS that is open source, that is the program code is available to all users to be able to modify and enhance the offering, and share it with others in the user base (Opensource, n.d.). Principles of open source software are upheld by the Moodle.net community. They include: Safety, Privacy, Ethical, Transparent and Connected (Moodlenet, n.d.). Since the source code is available to all users, updates are constant, which allows the software to remain current. The community also develops several plugins that enhances the flexibility and customization for the environment that an organization needs to use it in. There are currently 92,272 registered Moodle sites in use in 229 countries, the majority of which have less than 100 users (Moodlenet, n.d.).

Moodle is free to download, which, combined with its customization abilities, makes it an attractive choice for organizations who are creating their own learning solution versus off the shelf products. To maximize the product, an organization would need to dedicate human resources to manage it, specifically those with significant coding experience. The software can be housed on local company owned servers, or, through the use of Moodle Partners, can be kept on exterior or cloud servers. The need for expertise could be limiting for a small business, but their needs may not be as large either, making the free environment attractive. As one site manager said, "If you were going to just be building or designing simple courses anyone comfortable playing around for a few hours could learn the basics (Latham, Vasiliauskas, & Bowen, 2019)". Larger companies, especially multinationals, would likely have the resources to implement and support Moodle in their information technology environment.

Leadership and management objectives.

To create the learning environment a company requires, the Moodle platform is supported by over one thousand wide ranging plugins, developed by the community. MacCaorkle Edick (2015), highlights 11 reasons why her small company uses Moodle, including plugins that enable database management, configurable reporting, enrolments, attendance and surveys. Having the ability to keep data in one application can limit the use of other tools, such as Survey Monkey for example, where data would have to be extrapolated from a separate source (MacCorkle Edick, 2015).

While interviewing teachers and site managers currently using the platform, there was a common theme of you get what you put into it. For example, with the variety of plugins available, the choice could be overwhelming and unnecessary for most users. Support is mainly through the Moodle community as opposed to a dedicated support center, but that tends to work out well. Since the community also is responsible for building the platform, in many instances' administrators are talking to the developers, which couldn't be done with an out of the box solution. If it's decided to host the platform on company owned servers, costs are redirected to the hardware and personnel dedicated to maintaining uptimes. The trade-off of using a partner to host the platform is losing some control of the platform. From both the teacher and developer point of view, the term double edge sword came up in regard to the platform being open source. Yes, a company gets what is innovative in the eyes of those that need it, but it may not always go at the desired speed, or solve the problem a particular user has (Latham, Vasiliauskas, & Bowen, 2019).

Supporting global networks and teams.

Plugins satisfy several needs in the global environment. Currently, there is support for over 100 languages, allowing the learning officer to create content that is locally appropriate for their learners. Similarly, if simultaneous learning is required, time zone functionality is enabled. Participation and attendance recording are available.

Team building and group interactions.

When you do need to integrate other systems, such as video conferencing or human resource management software, Moodle platforms offer great interoperability. Using plugins and connectivity to other software, Moodle can create a team building environment. For example, a manager can monitor the usage of a particular course, and add gamification properties to it, or form chat forums that allow for users to interact from wherever they are around the world. Moodle-based products can be on mobile platforms based as well, so that the user doesn't need to be in front of a computer, and can login, either publicly or through a corporate VPN from wherever they are. From a collaboration point of a view, a common answer of an area in need of improvement is the discussion forum structure. It is hard to navigate through different threads thus making it easy to miss important information (Latham, Vasiliauskas, & Bowen, 2019).

When searching for a Moodle LMS platform, one must be careful to differentiate software that is Moodle-inspired vs Moodle-based (Khandelwal, 2019). While the inspired products can be very good, you won't be keeping the source code up to date as you would in a Moodle-based system. The Moodle-based system is built on the Moodle platform, customized to your corporate needs. Three such based systems are Totara, eLucid Learning and Blackboard Open LMS (Khandelwal, 2019).

LMS 2: The DLN

The DLN was designed to provide the Canadian Armed Forces (CAF) and employees of the Department of National Defence (DND) with a corporate online LMS. The requirement was derived from an aging system that no longer supported software and courseware development for best practices. The DLN is an online enterprise for managing, developing, and delivering online training, which supports continuous learning and the sharing of knowledge in a global environment. The DLN has a strong capacity for training management and development of learning content. These capabilities allow instructors, managers, and users to interact in a virtual global setting, which meets the needs of an organization with a global reach.

As a robust platform, the DLN aims to support more effective courseware design and development. As a result, it has enhanced learning and reduced time-to-proficiency for all trades in the CAF. The virtual global platform has increased training capacity by extending the reach of traditional CAF classrooms across the globe. The DLN also provides collaborative tools and resources that support performance by modernizing and expanding learning and training. The DLN has allowed the CAF to continuously support operational readiness despite resource constraints. Every CAF member is a user and

has access to the tools and resources appropriate to their status as a learner, instructor, content developer, instructional designer, or training manager/administrator.

Leadership and management objectives.

The DLN supports key leadership objectives by supporting the maintenance of operational readiness for the CAF. Additionally, it allows leadership to track statistics of course and content progress and completion to maintain a common operating picture across branches and units. The LMS also provides a blog platform for learners to communicate about the course content and help each other overcome challenges with the material or functionality. The features allow for different types of training courses as well. Employees can be directed to a course by being added to it by an external source or they can seek out a course to work on at their own pace. The DLN also allows managers and course instructors to gain access to a training profile. This profile allows them to monitor progress, provide feedback, and work through student challenges from different locations around the globe.

Supporting global networks and teams.

The support system for DLN has varied results. Users are required to email a help desk or an instructor to try to overcome any challenges with functionality or course loading. The response time is seldom immediate, as a result of the distance between the users and their support system. Conversely, features like community blogs and messaging can be used to enhance communication between teams. The feature allowing team leaders, managers, or supervisors to monitor progress allows them to identify which learners are falling behind and reach out to offer support or troubleshoot any issues. These monitoring features allows for support despite lacking some other ideal features for industry standards. The DLN provides courses and training in French and English, which are the two official languages of Canada. As members of the CAF, the enrollment and testing processes require fluency in one of these two languages. While CAF members may be working in different countries or not speak French or English as a primary language, the language capabilities satisfy the requirements of the organization.

Team building and group interactions.

The DLN does adequately support team building and group interaction. Despite the blog and instant messaging function, which are rarely used because of a lacking notification system, the DLN does not provide features that allow students to work together on material. The DLN cannot accomplish these types of activities without support from other tech tools, like Video Conferencing, Teleconferencing, or e-mail. Furthermore, the LMS is poorly equipped to provide group interactions because of its focus on independent learning or learning at your own pace. While some courses require users to submit assignments weekly and receive feedback, most don't require an instructor in this capacity which can leave some users in isolation. For example, when new members join the team there is an onboarding process which requires the completion of four courses on the DLN. These courses are a requirement for all new members but are completed individually, and sometimes not even in the same location for members who are attached to the same unit. Fundamentally, the DLN could better facilitate team interactions and relationship building.

One unique aspect of the DLN is that all content and courses created can be accessed by all users, although some require permissions. For the most part, employees can actively engage in professional development by self-registering in a wide variety of courses in order to improve their skills and abilities in the workplace. This feature creates an environment where leadership encourages members to seek out these opportunities or recommends courses for users to support training. Overall, the DLN was developed with a broad range of capabilities and is multifaceted to support different training environments.

LMS 3: Docebo LMS

Knowledge is a powerful tool and the future belongs to people who have a thirst for new knowledge. Docebo is a Latin word indicating 'from the mists of time'. From its origin, the company shows how they strive to have a constant eye on the future. Docebo is a cloud-based AI learning platform

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for enterprise companies. It is more popular among large corporations and medium businesses to cater to training, onboarding and career development of their global employees. It is an Italian-Canadian company used by over 1400 organizations, available in over 40 languages, in over 90 countries around the world. Docebo is a learning platform that combines formal, social and experiential learning with skills management to maximize learner performance.

Docebo is an Artificial Intelligence powered, cloud-based, SaaS (Software as a Service) learning platform that is available as web-based or mobile app with integration via multiple application programming interfaces (APIs) with third-party software. The Docebo learning management system supports international standards for E-Learning activities (SCORM and AICC). Docebo can be used on Windows, Mac, and Linux platforms. It is integrated with many business tools business tools, including CRM, HR software, web conferencing tools, social media (like Adobe Connect, Google Calendar, GoToMeeting, G Suite, Paypal, Salesforce CRM, Shopify, WebEx, Zoom, etc.)

Leadership and management objectives.

The way a centralized managed learning system is managed can make a lot of difference. Docebo has a decentralized approach that satisfies leadership and learning administrators through the automation of routine and time-consuming tasks for administrators. It allows for the quick upload of content, and the organization, tracking, measurement and analyzes of results.

The AI helps administrators to uncover skill gaps and address overdue training. It has the capacity to help them completely design and decide on the user interface (UI) and learner's experience, which is important to have in an effective LMS. It gives access directly to people managers to assign, enroll, or suggest relevant pieces of training directly to their reports. Training managers and LMS administrators have the power to completely design their learners' UI and learner experience easily by creating pages with drag and drop widgets and use their own corporate branding logos for which no coding skills are required.

The user interface needs to be simple and intuitive to use. Admins and learning managers have the ability to choose the format for their content and create quizzes and assess knowledge to further develop content based on their findings and also update content.

Supporting global networks and teams.

Different people learn differently. Docebo offers a high level of personalization. It can deliver courses to employees throughout the world allowing a learner to choose their learning style, and language in which the course is offered. Only when there is ownership will employees feel more enthusiastic. Docebo can be integrated with many apps to improve the overall business performance of the teams.

Team building and group interactions**.**

Successfully engaging people is less about technologies and more about enabling social interactions. This is challenging in a global organization where employees are spread out. With Docebo, learning modules can be shared on Yammer, which is an Enterprise Social Network that is part of the MS Office 365. Yammer is widely popular in many organizations and allows for a Facebook-style of communication within the organization. Docebo also allows one to share learning activities on major social networks such as Facebook, Twitter, Google Plus, and LinkedIn in closed groups with customized privacy settings. When any module is shared, Docebo's AI automatically produces a list of employees who have shown an interest in similar content to produce deeper learning experiences. Docebo also increases engagement by allowing gamification to learning activities to enhance engagement and compliance with the use of leaderboards and contests.

Other unique aspects of Docebo:

- Ease of deployment- fast. Within 20 days;
- Service support: 24 hours, phone, email, chat;
- Pricing flexibility- can cherry pick offerings available. Pay what you want. Upgrades- built into initial pricing;

- Training for users- intuitive and simple;
- Storage and bandwidth;
- Synchronous learning;
- Video conferencing capability.

LMS Tools

The design of this LMS should aim to assist newly established businesses to quickly overcome virtual team challenges such as the tendency to silo, cultural misunderstandings, generational diversity, and other inefficiencies arising from differing physical locations and time zones. This system should be designed to assist virtual team leaders in both assessing and implementing differing tools within a communications category in order to select the most effective tools particular to the unique characteristics of their team size, budget for technology, current team cohesion, and communication deficiencies.

The LMS should introduce individual modules for each of these tools that can be viewed selectively by virtual team leaders based on the needs applicable to their organizations' business model and future objectives.

Perhaps no group could benefit more from LMS training than virtual teams. Virtual teams, unlike collocated teams, do not have the benefit of traditional face-to-face meetings. Therefore, effective training of the virtual team leader and all members is critical for success. With successful training, virtual teams can effectively communicate in an effort to strategize and develop cohesion as well as manage conflict as it arises.

Instant Messaging Tools

Instant messaging systems allow team members to chat with one another - either individually or within a group - in real time. Such systems also allow for the sharing of files and documents. Service providers, such as those discussed in greater detail below, should be included in the LMS as samples of currently available instant messaging systems that also provide additional features that will help startup businesses to weigh their options in order to determine a system that is the right fit for its current and future needs:

Jabber. Jabber Provides a platform for instant messaging, voice and video calls, desktop sharing, presence and multiparty conferencing. It is compatible with Microsoft Office applications, Android, iPhone/iPad, and Mac.

Slack. Slack is an instant chat application that facilitates virtual teamwork through interfacing channels within which brainstorming, conversations, file-sharing, taking of polls, amongst other things, can occur (Hirsch, 2017). The Slack app can be integrated with over 1,500 apps (Slack.com). Within Slack: (i) channels can be divided up by team, project, client, or by any other topic relevant to the organization and can also be shared with external clients, vendors and business partners to connect key stakeholders in the same space; (ii) team members can join and leave a channel as they wish (which differs from an email chain); (iii) threads can be created for side conversations; (iv) voice and video calls can be made and call communications are searchable; (v) members can share their screens; and (iv) integrated file sharing of PDFs, images, videos and other files can occur by a simple drag-and-drop into Slack.

Rocket Chat. Rocket Chat is a competitor to Slack, is an open source software solution that provides a platform for integrated live chat in real time with the ability to switch to video or audio calls for screen sharing purposes, and markets as an email replacement tool, as it allows participants to leave and join a chat at any time.

Mattermost. Mattermost is a competitor to Slack, is an open source messaging platform that allows teams to communicate and share files through iOS or Android phones and tablets with installed apps on

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Windows, Linux and Mac. It allows for continuous archiving, instant search and deploys to private cloud and on-premises servers to maintain control of data.

Microsoft Teams. Microsoft Teams enables chat messaging, hosting audio, video and web conferences with individuals inside and outside the organization (which includes dial-in numbers spanning 400+ cities globally and presentations to up to 10,000 attendees), scheduling assistance, note-taking, desktop sharing, and file-sharing capabilities.

Groove. Groove enables teams to exchange private notes on support tickets (Hirsch, 2017), and can be an email alternative.

Skype for Business. Skype for Business has a platform that allows for screen sharing, file sharing and transfer of control during presentations, built-in instant messaging, PowerPoint upload for presentations including annotation, highlighting, and laser pointer, as well as a whiteboard to draft, draw, and edit virtually with the team. Video and audio streams are encrypted. This platform allows for an unlimited number of meetings (and free online meetings for up to 10 people without a subscription); URL invites for inviting team members with a personalized link; and is available on PC/Mac, iPhone, iPad, and Android.

IBM Sametime. Sametime allows instant messaging, online meetings with voice, audio, and video integration, and data sharing capabilities. It allows users to manage message history using date and time stamps, search functions, and keep logs of sent links and files. Further, online meetings can be accessed from a desktop, laptop, tablet or smartphone.

Internal instant messaging systems, that have similar functionality to popular chat applications such as WhatsApp and Facebook, can be used by team members to obtain rapid responses through informal communications, however, within a secure platform. Team leaders should consider an instant messaging tool that allows for seamless integration across other applications (such as email and telephone contacts), that is economical and agile to achieve compatibility across any new platforms the company may select in the future, that is user friendly, secure, and allows for varied functionality (such as one-to-one communications, group conversations, file and screen sharing capability, etc.) to allow for maximum utility (Kudritskiy, 2018)

Virtual Meeting Tools

Online meeting systems allow virtual leaders to connect with their team members in real time via audio and/or video, replicating some of the benefits of collocation. Such systems can also allow for the sharing of files, presentations, and documents during live meetings.

GoToMeeting. GoToMeeting is on online meeting system directed towards small companies, which supports meetings of groups of up to 15 members, meeting recording, screen sharing, and chatting between attendees (Warren, 2019).

Cisco Webex. Webex allows users to chat, meet through video and audio, use a whiteboard to share interactive sketches or drawings during the chat, schedule meetings, and share files and screens. Further, shared files are organized, searchable, and saved along with the communication. Team members can join from anywhere and switch between devices. Cisco markets its focus on security in the cloud, and end-to-end encryption.

Google Hangouts Meet. Hangouts Meet is a communications platform allowing for instant messaging, video chat, and voice over IP. It provides video meetings for businesses that is integrated with G-Suite, which allows members to join meetings directly from its various products, such as through Calendar or email, or from a computer, phone, or conference room. External participants can also

join a call, and all video and audio streams are encrypted. Meet has specific iOS and Android apps. G-Suite's Enterprise edition of Meet also consists of a dial-in phone number for each meeting so attendees can join a meeting while on the go without requiring the need for Wi-Fi or data.

Like the factors that should be considered in selecting instant messaging tools, virtual team leaders, in selecting the appropriate virtual meeting tools for their needs, should consider, their company culture, seamless integration of the tool across other applications (such as email) and compatibility across new platforms the company may adopt in the future, cost, ease of use, and whether it has varied functionality (such as direct and group communications, file and screen sharing capability, archiving repository, etc.).

Video Conferencing Tools

Video conferencing systems allow leaders to meet with team members that are geographically dispersed as if they all were in the same room (Brooks, 2019A). Given the number of video conference systems available on the market, it is important for companies to select agile software to avoid future costs related to integrating incompatible software (Brooks, 2019A). Research shows that "that more than 98 percent of medium and large-size organizations are likely to purchase video conferencing solutions, with two-thirds of small businesses planning to do the same" (Brooks, 2019B). Service providers, such as those discussed in greater detail below, should be considered in addition to the aforementioned Microsoft Teams, Zoom, Cisco Webex, and GoToMeeting systems (despite these being considered by Brooks (2019) as the 2019 best picks for video conferencing services), to allow startup businesses to make informed decisions about the system that would be most applicable to their unique needs currently and as they grow:

Zoom. Zoom is a videoconference, web-conference, and screen-sharing tool for virtual team meetings or for one-to-one calls (Hirsch, 2017).

Logitech LifeSize. LifeSize consists of 4k high definition video conferencing, audio and screen sharing features for mobile devices and web browsers. It provides touchscreen conference room phones and a cloud-based video collaboration platform. Lifesize has equipment for meeting rooms with a plug and play setup. It also integrates with Skype for Business, Outlook, Slack, Hipchat, Cisco, Polycom amongst others.

Join Me. Join Me sells itself as the fastest online meeting app, including audio and video conferencing by phone or internet, screen sharing, unlimited conference calls, with annotation and recording capabilities.

BlueJeans. BlueJeans allows for audio (powered by Dolby Voice) and HD video and web conferencing collaboration from mobile devices, desktops, and room systems. BlueJeans Events allows businesses to host, manage and livestream interactive events, webinars and meetings for thousands of attendees worldwide. It allows businesses to leverage AI and voice recognition to make meetings intelligent e.g. by allowing intelligent transcription and meeting initiation. It also facilitates collaboration through screen sharing, polling, recording, and text chat. BlueJeans integrates with Microsoft Teams, Workplace by Facebook, Office 365, Google Calendar, Slack, Splunk, Trello and others, and allows for the addition of cloud-powered video calls to an organization's applications. It also has dashboards that allow organizations to measure ROI, solve network issues, manage rooms, and make informed decisions.

PukkaTeam. PukkaTeam allows team members to see the faces of their virtual team members throughout the day and helps keep members connected by keeping office presence through incrementally updated snapshots of virtual team members with an intuitive face recognition feature that can tell

virtual team members who is and is not at their desk and available for a call or chat. PukkaTeam works directly from the browser and contains an integrated one-click video calling feature to connect and talk with teammates throughout the day.

As more teams become geographically dispersed, employees are requiring communications with their virtual team members through video conferencing tools as such tools help teams collaborate and "bring more to the table than regular conference calls, including physical gestures, facial expressions and the ability to share screens" (Brooks, 2019B). Team leaders, when searching for video conferencing solution that is appropriate for their needs, should take into consideration the following: number of participants that will regularly use the tool, video feeds that will be required depending on the number of participants, user-friendly system, types of meetings that will be held (open forum, or lectures/presentations), connectivity across mobile devices, audio/video recording, screen sharing, integration with other applications, and quality of the service provider's customer support (Brooks, 2019B).

File Sharing and Collaboration Tools

Working in global virtual teams presents various challenges associated with document control and file sharing. In the modern world, the ability for teams to collaborate by sharing files and working on documents effectively is paramount for cohesiveness. Fortunately, tools exist that facilitate document sharing for teams that are not collocated known as cloud file sharing. Any LMS should provide training for various file sharing applications including Google Drive and Microsoft OneDrive (described below).

Cloud computing is one of the fastest growing business technologies. According to Wilczek (2018), over 96 percent of organizations make use of cloud computing and 81 percent have multi-cloud portfolios, using five clouds on average. The cost of cloud computing is variable. Twenty six percent of large organizations spend more than $6 million in cloud computing annually, whereas small and mid-size businesses can spend roughly $10,000 a month on average (Wilczek, 2018).

Cloud file sharing is part of the greater technology of cloud computing - a model for universal, convenient, and on-demand network access to shared computing resources that can be released with minimal management (Mell & Grance, 2011). In other words, it is a technology which involves the storing, managing, processing of data and applications over the Internet rather than on personal computers or physical servers (Golden, 2010).

Before the advent of cloud file sharing, documents would need to be emailed or placed on external devices like flash drives. Emailing large files was often not permitted by email servers and physically mailing documents on flash drives is not conducive to effective communications amongst global teams. Now with the increased availability of cloud computing, teams can access documents and files from any computer or mobile device with internet access.

Cloud file sharing is part of Infrastructure as a Service (IaaS) where users pay for the use of networks, servers and data storage (Baltzan, 2018). IaaS operates much like a utility service such as electricity or gas, in that the user pays for the use of the infrastructure to perform their daily tasks (Baltzan, 2018). Along with software as a service (SaaS) and Platform as a Service (PaaS), IaaS makes up Big Data as a Service (BDaaS) through cloud-based computing offering organizations the opportunity to manage large amounts of data for business solutions (Baltzan, 2018).

Cloud file sharing is offered by several service providers, such as those discussed in greater detail below, which should be included in the LMS in order to assist virtual leaders in determining the right fit for their needs:

Microsoft OneDrive. Microsoft uses a cloud-based server known as OneDrive which allows users to place documents in shared folders for collaborative use. Traditional Microsoft Office programs including Word, Power Point, Excel and OneNote can edit collaboratively using Office Online.

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***Google Drive*.** Google uses a file sharing application known as Google Drive. With Google Drive team members have access to virtual files on a cloud server through which they collaborate. For example, Google Docs is a word-processing application which allows users to work on a living document. That is, group members can review, comment on and modify the document collaboratively in real-time for maximum efficiency. Google Docs is also compatible with traditional personal-computer-based word processing programs such as Microsoft Word and Apple Pages so that documents from these programs can be uploaded to the Google Cloud and worked on in a collaborative environment. Comments and changes can be tracked by team members to facilitate editing and copywriting. Google Drive also offers similar software to Microsoft Excel and PowerPoint. Similar to Google Drive, Google Sheets and Google Slides allow teams to collaborative work on cloud-based documents that are compatible with traditional PC-based software.

Intranet Systems

Unlike public internet domains, intranets are private networks. These internet-like domains allow organizations to share private information securely, manage proprietary information such as financial and accounting data, and control sensitive client and marketing files (Baltzan, 2018). Intranet protection is provided by additional security features such as firewalls, user passwords, and encryption software.

Among the benefits of intranets to virtual teams is the ability to provide a sheltered location to safely and securely access an organization's communication and resources. Team members often have access to features like member directories and credentials, information technology and human resource specialists, resource libraries, and file transfer sites. Intranets can also improve morale to remote virtual team members. By having access to resources and communications, team members will feel included and be aware of company developments, important targets and deadlines (Sellars, 2014), and activities happening in other regions. With an intranet, team members will always have access to the organization's mission statement, vision and core values.

Organizations leveraging intranet technology can also provide their employees the opportunity to socialize and communicate with other members of the organization, which may or may not be part of the virtual team through a social networking application. Service providers, such as those discussed in greater detail below, should be included in the LMS, as these intranet social media sites within an organization's intranet portfolio, can allow team members to communicate freely in a secure environment, unlike public social media sites like Facebook or LinkedIn:

Yammer. Yammer is part of Microsoft Office 365, and allows team members to confidentially share, create, and edit content directly in the Yammer app with other members within their organization. Each team has a shared set of resources to manage documents, share content and notes, and organize responsibilities. Its Microsoft Graph feature allows team members to search for people, files, groups and conversations, and run data analytics.

SharePoint. SharePoint, developed by Microsoft, is a document management and collaboration tool that stores documents in a more effective format than a regular folder system, and enhances collaboration within an organization through allowing all members to receive information that is relevant to them.

Skype for Business. Skype for Business allows for screen sharing, file sharing, built-in instant messaging, PowerPoint upload for presentations including annotation, highlighting, and laser pointer, as well as a whiteboard to draft, draw, and edit virtually with the team.

Notable major corporations such as General Electric and IBM use internal social media sites (Parks, 2013). On a personal level, interaction on intranets allows teams to network with other members of the organization that may have similar interests both within and outside of the workplace.

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Intranet and internal social networking provide quick access to all members of an organization and can be an invaluable tool for selecting the best candidates to be on a virtual team (Eisenhauer, 2015). This can afford team members the opportunity to seek out and onboard new members to the team with whom synergy has already been formed. Internal social networking can provide a forum for virtual team members to problem solve by sharing their experiences and knowledge. Team members can post or search for past posts regarding a topic of interest and connect to people who can assist with a task.

There are also financial incentives to using intranets. According to Parks (2013), the use of social networking cuts down on the time spent on checking emails by 20 to 25 percent and the project, expected values and deliverables, secure appropriate resources and seek approvals where necessary. The project leader will engage with stakeholders and most of the team will not be involved at this stage. Planning follows the project initiation. In this phase, the team will perform a task breakdown, prepare milestones and an overall roadmap for the project. When the team carries out the project in the execution phase, it will be important to track progress and make any necessary adjustments accordingly. The end of the project is signaled by the team having completed the deliverables appropriately. The team will review the project and conclude with any required modifications or next steps.

Discussion

When deciding on the LMS system to use in an organization, much must be considered, from using open source products, self-developed or off the shelf solutions, to how it integrates into the organizations IT environment. Hammed and Swar (2016) provide a decision matrix to help navigate the options (see Figure 2).

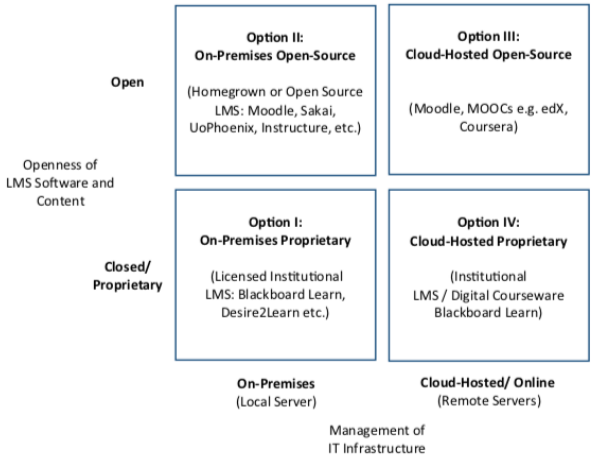

Figure 2: Common acquisition options for learning management systems (Hameed & Swar, 2016)

In the same paper, Hammed and Swar (2016) provide a framework that can be used to measure costs of implementing and maintaining an LMS, which vary based on the type of system chosen, the current IT infrastructure of the company, and the size of the user base. Included on their list is the hardware costs, including database, web and backup services. Some companies will choose use and invest in their own hardware, while others will contract this out. Services such as plagiarism detection, assignment management, online tests, student analytics, and reports can all be added as either part of the subscription to the software, or on a per user basis. Development and support can either be done in house, or as part of an ongoing service contract with a third party.

Docebo, in its closed infrastructure model, has a per user fee beyond the initial setup. There is a 14-day trial program, and then there is a growth plan for up to 300 users at $3.33 per user per month, and an enterprise program for 500 users at $5/user/month. Moodle is free software, but one must consider the development costs associated with building content. Moodle uses a community support model which can be effective, but maybe not as customized as needed, and therefore a company would have to provide their own support. Having a dedicated support center as a resource is an attractive feature of a proprietary system.

Current IT capabilities both in terms of technical and human resources, and the desired outcomes of the LMS, specifically how will content, either sourced or self-built, be delivered to employees must be considered. Along with hardware and setup costs, a company's decision would have to encompass their total IT environment. For example, the DLN doesn't communicate results to a human resources system, which makes it more cumbersome for users and managers needing to use multiple systems. The chosen LMS should communicate with as many pieces of the current structure as possible, or the desired finished environment. From a human resources point of view, it must be determined what the size of the IT department can be, and what expertise is needed to develop and support the system that is chosen.

Deciding what is needed of the LMS is of primary importance. Clarifying what the current and future needs of the system is important. Surveying the corporate leadership to understand the key deliverables from the education point of view is vital. If all that is needed is simple video delivery and reporting, a larger spend may not be necessary. However, if advanced features such as AI, VR, video conferencing, gamification, detailed reporting, and language support are desired, then a more robust solution needs to be considered. For global teams, scalability and 24-hour uptime requirements are needed.

Recommendations

Using a weighted decision matrix such as that shown in Table 1, a company can decide on which type of LMS solution works best to suit their needs. To determine the weightings, management must be aligned to the vision of the learning environment and what they want to see come from it, including a cost analysis. The categories reviewed for each LMS in this paper, can be weighted by management based on the perceived importance to the company. Training and support from the product provider need to be assessed as to the importance, based on such variables as language support, size of user base, and size of internal support department. To foster team development, features such as discussion forums, video, AI, VR should be reviewed. Finally, unique features of the options must be evaluated.

Each LMS would be measured by their ability to satisfy the key issues on a scale of one to five, and then multiplied by the assigned weighting. The weighting is created by measuring the greatest risks or challenges for the company. The LMS that has the highest cumulative score would be the one to move forward with. Adequate research would be required to accurately identify a score for each issue as it pertains to the company.

Table 1: LMS Decision Matrix

	Weight	LMS 1: Moodle	LMS 2: The DLN	LMS 3: Docebo
Key Issue 1: Leadership Objectives	0.4			
Key Issue 2: Training and Support	0.3			
Key Issue 3: Collaboration/Team Building	0.2			
Key Issue 4: Unique Aspect Factor	0.1			
Total	1			

Conclusion

LMS' are a key factor in supporting organizational learning, maintenance of job skills, and professional development. Companies are quick to seek alternatives to classroom training in order to

better support a new generation of learners and seek new effective ways to provide training for new global employees. Using the internet, LMS' can bridge the distance between the main office and global employees by providing a common platform for training and collaboration. Furthermore, teams can establish a common ground for collaboration and communication depending on the attributes of the platform being utilized. Regardless of the platform, it is integral for leaders to be involved in the communication and collaboration of team training and development. If the platform possesses features that support this need, managers will be far better suited to lead their team to success. Consideration of these features, which are some of the industry's best, are essential components of an effective LMS. Whether purchasing or building an LMS, companies which require a global reach to connect employees and teams should consider these features as essential factors for organizational success.

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Do Entrepreneurs Do Good Deeds to Maximize Wins or Avoid Losses? A Regulatory Focus Perspective

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Abstract

Researchers and practitioners generally agree that small businesses are important contributors to social responsibility within their communities and beyond. Despite the well-documented importance of small businesses in carrying out social responsibility, particularly locally, little is known about the motivation orientation underlying such behavior. Further, there is little agreement about what constitutes social responsibility in the small business context. Using regulatory focus theory as a theoretical lens, we examine how promotion focus versus prevention focus of the small business owner motivates social responsibility engagement targeted at society, employees, and customers. We find that regulatory focus of the small business owner does not play a role in motivating society-focused social responsibility engagement; however, prevention focus plays an important role in motivating engagement in employee- and customer-oriented social responsibility.

INTRODUCTION

CSR researchers and practitioners are recognizing that we cannot continue to use large multinational corporations (MNCs) as the standard for understanding CSR, especially when considering small and medium-sized enterprises (SMEs) (Perrini, 2006; Spence and Rutherfoord, 2003; Thompson and Smith, 1991). It is imperative that we gain further understanding of the relationship between CSR and SMEs (Russo and Tencati, 2009), due to the impact SMEs have on the global economy (Morsing and Perrini, 2009) through their substantial levels of entrepreneurial activity (Wickert, 2016) and serving as large sources of employment (World Trade Report, 2016). In addition, SMEs are also known as the entities that often spearhead social responsibility within local communities (Avram, Domanovich, Kronenberg, and Scholz, 2018), and are more likely to consider social responsibility closer to home, such as employee motivation and retention and community involvement (Jenkins, 2006).

When trying to gain insight into SMEs, one must understand the important influence that owners and owner/managers have over the strategies and behaviors of the firm. These individuals are often the sole or major-decision makers within the organization and therefore have the potential to shape organizational culture and values beyond simply earning profits (Klein and Kellermanns, 2008; Nicholson, 2008). Given their level of influence, it is important to understand owner and owner/managers' motivations and interpretations of CSR, as these will likely impact how CSR is pursued and implemented within the organization (Murillo and Lozano, 2006; Perrini, Russo, and Tencati, 2007). A lack of understanding regarding the microfoundations (i.e., individual-level factors) of social responsibility engagement within small firms is often lamented (Aguinis and Glavas, 2012; Alonso-Almeida, Perrmaon and Bagur, 2015); however, little research currently examines the effect of owner disposition, motivation frame, etc. on the level of social responsibility engagement in the small firm context. These

individual-level differences may provide important explanations for why small firms are heterogeneous in their level of social responsibility engagement.

Regulatory focus theory may provide a useful lens through which to examine small business owners' engagement in social responsibility. Regulatory focus theory suggests that individuals take one of two primary motivation orientation foci in goal pursuit: promotion focus versus prevention focus. These motivation orientation frames in turn influence the ideas generated and actions pursued by the individual (Prasastyoga, Leeuwen, and Harinck, 2017). A promotion focus lends individuals to pursue gains and maximize positive outcomes, while prevention focus orients individuals towards working to minimize loss through safety and carrying out responsibilities (Higgins et al., 2001). For example, Brockner, Higgins and Low (2004) determined that promotion focus plays a more critical role in developing business ideas; whereas, in screening ideas, prevention focus is a more salient motivation orientation. Since regulatory focus provides insight into the entrepreneur's disposition, it is likely an important determinant of small firm strategy (Hambrick and Mason, 1997). Given that the owner's motivation frame sets small firm strategy and behavior, regulatory focus theory likely holds critical associations with motivation for engaging in socially responsible behaviors through the business (Chang, Lee, and Oh, 2018).

In addition to our narrow understanding of drivers of social responsibility engagement in the small firm context, we likewise know little about the types of social responsibility in which small businesses engage. Myriad measures have been examined over time (Fitzgerald et al., 2010; Peake et al., 2015; Peake et al., 2017), but little agreement has been reached regarding how to best examine social responsibility outcomes from the SME perspective. Many studies employ single-item measures, or measures that have notable limitations (Peake et al., 2015). As such, we assess three well-validated measures of social responsibility from Turker (2009), adapted to the small firm context.

Given these challenges to expanding our knowledge of small business social responsibility, we examine how the motivation orientation of small business owners translates to engagement in social responsibility for the small business with regards to societal, employee, and customer oriented social responsibility. We first examine regulatory focus theory to develop hypotheses related to these phenomena. Then, we provide an examination of the data and measures, followed by the results of our analyses. Finally, we provide insights into the academic and practical implications of our work, as well as future research that may stem from any progress we make with the work at hand.

THEORY AND HYPOTHESIS DEVELOPMENT

Regulatory Focus Theory

The framework and basis of Regulatory Focus Theory (RFT) has been largely provided by Higgins (1997) which examined motivational foci and attempted to expand upon prior theories of motivation. Higgins examined the desired end-states of individuals, as well as the self-regulations one imposed to reach those end states (Higgins, 1997). Through this effort, Higgins established two independent self-regulatory systems in promotion regulatory focus and prevention regulatory focus (Higgins, 1997). These two systems both included desired end-states as well as undesired end-states, expanding upon the "pleasure vs. pain" formula found in earlier hedonism-focused theories of motivation (Higgins, 1997).

A promotion focus centers on hopes, achievements, and goals when self-regulating behavior and cognition. A person using this focus sees achievements as desirable and the lack of

achievement as non-desirable (Higgins, 1997). Individuals using this focus do not consider losses when making decisions, and instead focus on striving towards their preferred end state by trying various behaviors to see what works, resulting in less risk-averse behavior (Brockner & Higgins, 2001). In contrast, prevention focus emphasizes the role of duty and responsibility in an individual's motivation (Higgins, 1997). Prevention focus attempts more to prevent mistakes and mitigate risk of failure as opposed to desiring success. Individuals who utilize a prevention focus orientation see lack of failure as a desirable end-state and failure as an undesirable end-state and focus on vigilance (Higgins, 1997). Further, they engage in behavior that guards against error, resulting in a more risk averse mindset when moving towards goals (Brockner & Higgins, 2001). Notably, both motivations can be involved in the pursuit of an individual's goals, and both can be demonstrated by individuals (Forster, et al., 2003; Gamache, et al., 2015). As we will address below, regulatory focus has received some attention in the entrepreneurship literature in general, but, to our knowledge, has not yet considered the regulatory focus of the entrepreneur in conjunction with the social responsibility engagement in the small business.

RFT and Entrepreneurship

The relationship between Regulatory Focus Theory and entrepreneurship has been examined through a variety of lenses. Fischer, et al. (2018) researched the link between regulatory focus theory and sustainable entrepreneurship. Using qualitative methods, 14 venture founders were interviewed on topics such as sustainability, idea development processes, the acquisition of resources, and the stages of the entrepreneurial process. Follow-up interviews focused on the founders' motivation and the venture development process (Fischer, et al., 2018). It was found that self-regulatory foci changed during the entrepreneurial process. When conceiving ideas, a prevention-focused process was likely to be used in order to develop sustainability goals, as sustainability was viewed as a responsibility and duty of the respondent. During rollout, a promotion-focus was more likely to be used in order to pursue venture growth (Fischer, et al., 2018).

Wallace, et al. (2010) examined the relationship between a small firm CEO's regulatory foci and the performance of their firm. Using a questionnaire method, 1,059 CEO's of firms with less than 300 employees were surveyed. Results indicated that a promotion focus is positively related to firm performance, and prevention focus is negatively related to firm performance (Wallace, et al., 2010). Environmental dynamism was found to moderate these relationships, strengthening the relationship between promotion focus and firm performance and weakening the relationship between prevention focus and firm performance. Environmental dynamism was characterized by a high rate of change and instability, resulting in increased decision uncertainty (Wallace, et al., 2010).

In their work, Prasastyoga, et al. (2017) attempted to analyze the effect of regulatory foci on an individual's small business growth beliefs (SBGB's), defined as: "individuals' evaluations of expected consequences of small business growth" (Prasastyoga, et al., 2017). 121 Indonesian students and 114 business owners were surveyed with the intent of measuring the subjects' individual regulatory foci and their SBGB's. Questions regarding SBGB's were divided into Emotion-related SBGB's (i.e. what emotions the subject associated with the thought of their business growing) and Finance and business-related SBGB's (i.e. what effect the business growth would have on the financial well-being of both the business and the individual). It was found that individuals with a strong promotion focus tended to have more positive SBGB's,

while those with a strong prevention focus tended to have more negative ones (Prasastyoga, et al., 2017).

RFT and Corporate Social Responsibility

Very little research has examined the relationship between RFT and Corporate Social Responsibility (CSR), and the literature is sparse in the context of small firms or the entrepreneurial process. RFT has been linked to altruistic behavior in individuals, with a promotion focus strengthening altruistic behavior and a prevention focus weakening it (Baek & Reid, 2013). From a marketing standpoint, different regulatory foci have been found to be linked to different reactions to CSR activities (Kim, et al., 2012). Kim, et al. (2012) analyzed the relationship between promotion hope/prevention hope and consumer attitudes towards CSR. Promotion hope/prevention hope were characterized as the different outcomes presented by advertisements to consumers and the type of hope induced in the consumer. For example, a weight loss commercial would instill prevention hope as the consumer would hope to prevent the negative outcome of weight gain (Poels & Dewitte, 2008). Prevention hope focus resulted in altruistic CSR activities being more effective than strategic CSR activities, while a promotion hope focus produced no significant difference between the two. Habitzreuter & Koenigstrofer (2018) investigated whether a CSR sport event sponsorship influenced attitude toward the sponsor depending on regulatory fit. It was found that when the regulatory focus of the participant matched that presented by the CSR sponsorship, there was an increase in the perceived philanthropy of the sponsorship (Habitzreuter & Koenigstrofer, 2018).

SME, Entrepreneurs and CSR

A common perception is that SMEs' defining characteristic is their size, and therefore they tend to be homogenous in terms of behavior (Wilkinson, 1999). While size certainly plays a key role, especially when differentiating from the behaviors of MNCs, there are other key internal and external factors that define their behavioral characteristics (Jenkins, 2006). The behavior of SMEs is often viewed through the lens of the entrepreneur or owner/manager. Bolton (1971) noted that SMEs often have a 'personalized style' of management that is less formal in nature and can vary widely based on the individual personalities of owner/managers. The most common form of SME is the owner-managed firm, where ownership and decision-making power lie within the same person (Jenkins, 2006). This close connection between the organization and the entrepreneur strongly influences the organization's strategies, policies, practices, as well as the role that the organization plays within society as a whole (e.g. Barnett and Karson, 1987; Carroll and Hoy, 1984; Hamman, Habisch, and Pechlaner, 2009) This type of organizational structure grants the owner/manager a high degree of autonomy and influence as to *how* and *why* CSR is pursued.

Lepoutre & Heene (2006) state that SMEs are well positioned to engage in socially responsible behavior in part because they often create new jobs, induce economic growth and introduce innovations. As such, SMEs engage in behaviors that align them with stakeholders including employees, customers, and the community within which they operate. These stakeholders are particularly relevant when considering CSR. In fact, Turker, (2009) created a framework for corporate social responsibility based on these exact stakeholders – society, employees, and customers. Society includes communities, the natural environment, next generations, and non-government organizations. This is referred to as CSR to social and nonsocial stakeholders. CSR to employees refers to activities which are directly related with the

physical and psychological working environment of employees. Finally, CSR to customers refers to the extent to which the company builds and maintains good relations with consumers including providing high quality products or accurate information about its activities. In addition, Turker's framework is aligned with the European Commission's definition of social responsibility and the responsible entrepreneur that has been used in the SME literature previously (e.g. Lamberti & Noci, 2012; Stekelorum, Laguir, & Elbaz, 2019; Torugsa, O'Donohue, & Hecker, 2012). The European Commission's publication on ''Responsible Entrepreneurship'', defines the socially responsible entrepreneur as one that (1) treats customers, business partners and competitors with fairness and honesty; (2) cares about the health, safety and general well-being of employees and customers; (3) motivates his workforce by offering training and development opportunities; (4) acts as a good citizen in the local community; and (5) is respectful of natural resources and the environment'' (European Commission, 2003).

Society-related social responsibility

CSR measures often focus on the enhancement of reputation and trust (Ortiz-Avram, Domnanovich, Kronenberg, & Scholz, 2018). A small business owner's success criteria may include having a positive societal impact and public recognition through society related social responsibility (Gorgievski, Ascalon, & Stephan, 2011). In addition, given the small size of these businesses, anonymity is forsaken and if a mistake is made or a questionable action taken, it is easy to identify the responsible party or parties. In these cases, responsibility will ultimately end with the owner-manager (Besser, 2012; Spence, 2007). "This moral proximity with community and customers can focus the mind considerably on socially responsible behavior" (Spence, 2007; pp. 537). Burton and Goldsby (2009) determined that small business owners' attitudes towards social responsibility substantially predicted engagement in those behaviors. They found there to be alignment between economic versus noneconomic goals and the focus of subsequent social responsibility initiatives.

In the SME domain, the impact of engagement in social responsibility on firm performance has been examined more often than behavioral drivers. As such, research suggests performance benefits do exist for SME firms engaged in socially responsible behaviors (Fitzgerald et al., 2010; Niehm, Swinny, and Miller, 2008; Petrenko, Aime, Ridge and Hill, 2016) and that small business owners are aware of this link. Besser (2012) found that small business owners indicated their primary motive for involvement in community-facing social responsibility was to promote business success. This is echoed in the studies of small business social responsibility that highlight the role of enlightened self-interest in more societal-oriented social responsibility (Peake et al., 2015; Peake et al., 2017).

Society-related social responsibility is more discretionary by nature (Panwar,Nybakk, Hansen and Pinske, 2016; Panwar,Nybakk, Hansen and Pinske, 2017), so those entrepreneurs with a promotion regulatory focus would be more predisposed to chase the "gains," or business success (Besser, 2012), that society-oriented social responsibility may pose. Grayson and Hodges (2004) advocate that a key driver for business success or gains is a competitive instinct and an inclination to look for opportunities in non-traditional areas, such as those found within the CSR realm (Parhankangas, McWilliams and Schrader, 2015). This critical instinct is one that we would expect entrepreneurs with a promotion regulatory focus to display through their pursuit of society-oriented social responsibility.

H1: *Small business owners with a promotion focus will report higher levels of engagement in society-oriented social responsibility.*

Employee and customer related social responsibility

Many SMEs tend to emphasize CSR efforts that focus on employees, the local community, and other stakeholders that are 'closer to home' (Fitzgerald, Haynes, Schrank, and Danes, 2010; Jenkins, 2009; Russo and Tencati, 2009). Most SMEs are content to survive as long as they are able to make a sufficient living (Baker, 2003). This may particularly impact an owner/manager's proclivity towards a prevention focus rather than a promotion focus when considering social responsibility.

In SMEs the pressure for responsible action is most strongly felt about stakeholders such as employees and customers (Lepoutre & Heene, 2006). This pressure however is often preventative in nature. In other words, small business owners and owners/managers are focused on legal issues related to employment law and consumer protection laws. In addition, "the extent and depth of an SME's implementation of CSR measures will depend on the owner-manager's awareness of the costs of irresponsibility as well as of the benefits of responsible behavior" (Ortiz-Avram et al., 2018; pp 259).

CSR to employee behavior, while regulatory in nature may involve minimal treatment such as a focus on the availability of employee training and development opportunities that are both accessible and inclusive and the crafting of reward systems that are fair and equitable (Jamali, Zanhour, & Keshishian, 2009). In addition, Turker (2009) states that these types of CSR activities involve or are directly related with the physical and psychological working environment of employees. They may do little however beyond keeping the small business outside of the legal system or avoiding any potential lawsuits.

CSR to customer socially responsible behavior may involve openness, honesty and fairness in contracts, agreements, payments and (marketing) information; pricing issues; and the origin of resources (Hornsby, Kuratko, Naffziger, LaFolette, & Hodgetts, 1994; Humphreys, Robin, Reidenbach, & Moak, 1993; Lahdesmaki, 2005; Vitell, Dickerson, & Festervand, 2000; Vyakarnam, Bailey, Myers, & Burnett, 1997). Additionally, consumers are requesting more sustainable products. As consumers become more environmentally conscious SMEs need to consider this in order to meet customer demand. These activities may include increasing quality standards, offering the right products, or offering after-sales support or even prompt delivery services (Stoian & Gilman, 2017). The focus is however, still on prevention as it relates to safety and responsibility.

Both employee and customer oriented social responsibility involve meeting minimum thresholds for employee and customer relations; thus, these measures represent a more vigilance-type approach. As such, we would expect higher levels of prevention focus to associate with higher levels of engagement in employee-oriented and customer-oriented social responsibility.

H2: *Small business owners with higher levels of prevention focus will report higher levels of engagement in employee-oriented social responsibility.*

H3: *Small business owners with higher levels of prevention focus will report higher levels of engagement in customer-oriented social responsibility.*

DATA AND METHODS

Data were collected via mail surveys and online from small business owners or managers through 3 data collection efforts. In each of the data collection efforts, small business owners or managers, who agreed that they specifically deal with human resources were targeted for the original survey. The organizations of respondents must have at least 1 and less than 250

employees. The survey was originally designed as a mail survey, and was distributed in summer 2015, to 4103 businesses in Kentucky using traditional methods with a notification letter, survey, and reminder card. With the mail survey, a total of 234 surveys were returned, yielding a response rate of 5.7%. Additional data were collected using Qualtrics Panels (n=492) and MTurk (n=401) using the same parameters. Through these means, 1127 surveys were originally collected with 1023 complete surveys.

Since the purpose of this study is to examine the relationship between the regulatory focus of the business owner or owner/manager and firm engagement in social responsibility activities, we removed any respondents who were not the owner or owner/manager of the firm, who did not make key decisions, or who did not participate in the day-to-day operations of the firm. Further, to ensure that all respondents had a sufficient number of enough employees to be able to respond to employee social responsibility, we restricted the respondents for analyses to those with more than 5 and less than 250 employees. After these restrictions were put into place, 387 observations remained for analysis.

Measures

Social Responsibility Engagement. We used the society, employee, and customer elements of the Turker (2009) social responsibility constructs. Respondents were asked to indicate the extent to which they or their business had engaged in an activity within the community. Seven items comprise the ***Societal Social Responsibility*** measure, and include items such as, "make investments in our community to create a better life for future generations," "encourage employees to engage in volunteering opportunities," etc. Cronbach's alpha for these items is 0.889. Five items make-up the ***Employee Social Responsibility*** measure, and include items such as, "Implement flexible policies that allow employees to have a good work/life balance," "support employees who want to acquire additional education," etc. Cronbach's alpha for these measures is 0.802. Three items make up the ***Customer Social Responsibility*** measure, including, "Go above and beyond to respect and serve our customers," "provide customers with full and accurate information regarding our products," and "ensure high levels of customer satisfaction." Cronbach's alpha for these measures is 0.849.

Promotion versus Prevention Focus. The promotion versus prevention achievement orientations were taken from the Regulatory Focus Questionnaire (RFQ) developed by Higgins et al. (2001). These measures have been widely used in the entrepreneurship literature related to regulatory focus (e.g., Bryant, 2009; Hmieleski and Baron, 2008). The RFQ contains 11 items, related to either promotion or prevention focus. Respondents were asked on a scale of 1 to 5, where 1 = never/seldom and 5 = almost always/always, to circle the number that best represents their response. There are 5 Promotion Focus oriented items, such as "Growing up, would you ever 'cross the line' by doing things that your parents would not tolerate?" and "Not being careful enough has gotten me into trouble at times." Six items comprise the Prevention Focus construct, including items such as "Compared to most people, are you typically unable to get what you want out of life?" and "Do you often do well at different things that your try?" Any negative phrases were reverse coded in alignment with Higgins et al. (2001). Cronbach's alpha for the Promotion items is 0.823. Cronbach's alpha for the Prevention items was 0.632, which is not uncommon given the measure was extracted from prior research (Zahra, Hayton, and Salvato, 2004)

Controls. With a focus on the entrepreneur's regulatory focus and the subsequent firm engagement in social responsibility, we analyze several entrepreneur and firm-related controls.

With regards to entrepreneur-level information, we examine gender, age, and education level. Both gender and education level have been found to have important impacts on small business social responsibility (Peake et al., 2017), while the age of the owner has often been included as a control across studies acknowledging the importance of the owner in setting firm values and decisions. In terms of business-level controls, we examine the industry of the firm and the number of full-time employees.

Results

The averages, standard deviations, and correlations for the variables employed in our analyses are reported in Table 1. We examine three models, one representing each of the dependent social responsibility variables, *Societal Social Responsibility*, *Employee Social Responsibility*, and *Customer Social Responsibility*. The models are reported below. Prior to examining the variables via regression analysis, we undertook statistical analyses to assess the suitability of the data for further analysis. Results of the Harman one-factor test reveal that common method bias does not appear to be a concern with the data, given that the items loaded on 6 factors with no factor comprising more than 23% of the variance (e.g. Andersson and Bateman, 1997; Greene and Organ, 1973; Schriesheim, 1979). We likewise assessed the data for multicollinearity via the calculation of variance inflation factors and condition index values. We found that all VIFs were less than 1.3 and the Condition Index was less than 30, which provides no evidence of issues with multicollinearity (Hair, Black, Babin, and Anderson, 2013). Given the results of the Harman one-factor test and multicollinearity examinations, we believe our data to be suitable for further analyses. Results of these analyses are available in Table 2 below.

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Table 1. Average, Standard Deviation, and Correlations for Variables under Analysis

Variable	Mean	Std Dev	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
1. Societal Social Responsibility	3.54	0.89	-										
2. Employee Social Responsibility	4.06	0.66	0.66*	-									
3. Customer Social Responsibility	4.59	0.57	0.13*	0.46*	-								
4. Prevention Focus	3.91	0.62	0.09*	0.34*	0.47*	-							
5. Promotion Focus	3.56	0.86	0.07	0.17*	0.23*	0.30*	-						
6. Male	0.60	0.49	0.39*	-0.17*	-0.10*	-0.06	-0.10*	-					
7. Education level	4.58	1.41	-0.06	-0.00	-0.02	0.09	-0.00	-0.02	-				
8. Age	42.24	13.03	-0.04	0.10*	0.21*	0.21*	0.14*	0.06	0.12*	-			
9. Retail	0.18	0.39	-0.03	0.00	-0.09*	-0.10*	-0.07	-0.07	-0.03	-0.12*	-		
10. Service	0.40	0.49	0.02	-0.01	-0.04	0.01	0.01	0.06	0.13*	-0.06	-0.38*	-	
11. Manufacturing	0.06	0.24	-0.03	-0.12*	-0.02	-0.10*	-0.02	0.12*	-0.05	0.01	-0.12*	-0.20*	-
12. Number of Employees (FT)	23.59	31.92	0.15*	0.08	-0.04	-0.05	0.01	0.07	0.04	0.00	-0.03	-0.05	0.10*

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Table 2. Results of Linear Regression Analysis

	Model 1 Societal Social Responsibility	Model 2 Employee Social Responsibility	Model 3 Customer Social Responsibility
Prevention Focus	0.115 (0.078)	0.323*** (0.054)	0.384*** (0.044)
Promotion Focus	0.031 (0.055)	0.043 (0.038)	0.053I (0.031)
Male	-0.193* (0.093)	-0.198** (0.064)	-0.085 (0.053)
Education level	-0.048 (0.032)	-0.019 (0.022)	-0.027 (0.018)
Age	0.000 (0.004)	0.002 (0.002)	0.005** (0.002)
Retail	-0.025 (0.130)	0.056 (0.090)	-0.063 (0.074)
Service	0.039 (0.104)	-0.026 (0.072)	-0.068 (0.059)
Manufacturing	-0.113 (0.201)	-0.237I (0.139)	0.034 (0.114)
No. of Employees (FT)	0.005** (0.001)	0.002* (0.001)	0.000 (0.001)
F	2.218*	8.040***	14.145***
R^2	0.050	0.161	0.252

N = 387, ***p<0.001, **p<0.01, *p<0.05, Ip<0.10

Our results indicate that neither promotion nor prevention focus significantly impact engagement in societal-oriented social responsibility. As such, Hypothesis 1 is not supported. Although Model 1 has weak predictive power overall, two control variables exhibited significance in this model: gender (β = -0.193, p<0.05) and number of employees (β = 0.005, p<0.01). The significant effects for gender suggest that men negatively impact the level of society-oriented social responsibility engagement. The number of employees was positively and significantly associated with the level of societal-oriented social responsibility engagement.

The two subsequent models, however, provide both greater predictive power and lend support to Hypotheses 2 and 3, since prevention focus is positively and significantly associated with higher levels of engagement in employee (β = 0.323, p<0.001) and customer-oriented (β = 0.384, p<0.001) social responsibility. The results of Model 2 suggest that, as in Model 1, gender (β = -0.198, p<0.01) and the number of employees (β =0.002, p<0.05) in the firm likewise hold significant impacts on engagement in employee-oriented social responsibility.

As mentioned previously, prevention focus underpins the findings in Model 3. Here we also find a marginal influence of promotion focus (β = 0.053, p<0.10) on engagement in customer-oriented social responsibility. In terms of controls, age of the owner or owner/manager (β = 0.005, p<0.01) is significantly associated with higher levels of engagement in customer-oriented social responsibility.

DISCUSSION, IMPLICATIONS AND CONCLUSIONS

In utilizing the lens of regulatory focus, our study sheds new light upon the micro-foundations of CSR within the SME context. CSR researchers and practitioners have a long history of pointing to the 'business case for CSR' (e.g. Carroll and Shabana, 2010; Friedman, 1970; Panwar et al., 2017) by emphasizing the potential gains that organizations, including SMEs, could achieve through the adoption of such practices (Panwar et al., 2016; Panwar et al., 2017). While the economic value of CSR is a priority within SMEs, it appears that the focus is more on vigilance, or preservation, and less on gains. Further, our findings suggest a prevention regulatory focus leads entrepreneurs to strategically interact with specific stakeholders, namely customers and employees, in an attempt to insulate their firms from failure.

Stakeholder salience (Mitchell, Agle, and Wood, 1997; Sen and Cowley, 2013) likely plays a key role in terms of whose interests are prioritized by the entrepreneur (Panwar et al., 2016). Mitchell et al. (1997) outlined the importance of any given stakeholder based on the possession of one or more of the following attributes: power, legitimacy, and/or urgency. Stakeholders possessing a single attribute are latent, while those possessing two or more attributes are perceived as more salient. Sen and Cowley (2013) list a range of potential SME stakeholders in terms of highest to lowest salience. Employees and customers are classified as *dominant* stakeholders, while groups that make up societal social stakeholders (e.g. community, political groups) are considered *discretionary* stakeholders. These assertions are backed by the work of Fassin, Rossem, and Buelens (2011), given that they found job creation and job continuity were the most widely recognized and accepted forms of social responsibility by small business owners; thus, solidifying the importance of employee-oriented social responsibility for small business owners and owner/managers.

This classification of dominant vs. discretionary ties back to one of CSR's seminal frameworks; Carroll's (1979) CSR pyramid. Carroll (1979; 1991) defines CSR as encompassing "the economic, legal, ethical, and discretionary (philanthropic) expectations that society has of organizations at a given point in time." In addition, the study gives values or weights to each of the four components based on the relative importance that executives place on each area. Similar to Maslow's (1943) hierarchy of needs, Carroll emphasized the need for organizations to work from the bottom up to meet each of the CSR components, with economic responsibilities being met first, followed by legal, then ethical, and lastly, discretionary. Meeting the needs of dominant stakeholders (i.e. customers and employees), falls in line with meeting the economic, legal, and ethical responsibilities outlined by Carroll (1979). Meeting the needs of discretionary stakeholders (i.e. societal social stakeholders) falls within Carroll's discretionary/philanthropic responsibilities. As the name implies, these 'responsibilities' are voluntary, or optional, by nature. Discretionary CSR is not considered a required ethical or moral responsibility, and therefore society does not deem organization's 'unethical' for not engaging in said efforts (Carroll, 2016). In other words, losses are not likely to occur if organizations fail to engage with discretionary stakeholders. Failure to meet the needs of dominant stakeholders, on the other hand, could result in potential losses, whether they be in

the form of profit loss, legal repercussions, reputational hits, or all the above. While SMEs are not subject to the same level of global scrutiny as large firms, they are still vulnerable, making preservation of business reputation a primary motivation for engaging in CSR (Sen and Crowley, 2013). As such, further examination of balance with more discretionary stakeholders in the social responsibility domain merits further attention from researchers in the SME context.

With the discretionary nature of societal-oriented social responsibility, there is the possibility that organizational slack plays an important role in facilitating engagement in that domain. Although we do not have conclusive evidence, our analysis suggests that engagement in societal-oriented social responsibility heightens when the firm is larger in terms of number of employees. A larger number of employees may suggest the firm is of sufficient size for organizational slack to become a point of leverage for participation in more discretionary forms of social responsibility. Prior research suggests that organizational slack in the form of human resources and financial stability (George, 2005; Jenkins, 2004) may allow a firm to commit more time and financial resources to social responsibility (Panwar et al., 2017). As such, we suggest that future explorations for more discretionary forms of social responsibility consider the effects of slack resources, both in terms of human resources and financial resources.

Given that entrepreneurs appear to be engaging in CSR as a means to avoid loss rather than achieve gains, it would be interesting for future research to examine entrepreneurs' holistic attitudes towards CSR itself. Do they feel 'forced' to engage in such efforts, and as a result, does that affect whether they view the efforts in a positive or negative light? Do they feel true autonomy over the CSR efforts, given the perceived obligations towards certain stakeholders? In a study of executives, Mazereeuw-van der Duijn Schouten, Graafland and Kaptein (2014), found that the attitude of CSR as a financial responsibility was associated with higher engagement in CSR behaviors aimed at internal stakeholders. We do not have a substantial understanding of attitudes in the small business context, however, and although these results suggest there may be some alignment in small and large corporations related to these attitudes and their impact on socially responsible behavior, more research is needed.

Practical Implications

Prior research suggests that regulatory focus of the individual affects how opportunities should be framed in order to gain support (Yi and Baumgartner, 2009). This work suggests that although messages or pitches may be factually equivalent, framing can affect how the message is received, depending on regulatory focus of the recipient (Yi and Baumgartner, 2009). Such results are supported on the consumer-side as well, since CSR and sustainability issues regarding the environment are most appealing when prevention framing is utilized (Bullard and Manchanda, 2013). Our research appears to provide support for this, particularly in the context of pitching socially responsible initiatives to entrepreneurs and small business owners. In focusing the sharing of socially responsible behaviors from a vigilance or avoiding loss frame, our results suggest entrepreneurs may be more responsive regarding employee and customer-oriented socially responsible behaviors.

Limitations

Although this work holds substantial implications for social responsibility in the SME context, there are several limitations to acknowledge. The data examined are cross-sectional and self-reported. While this is certainly a limitation, we do not believe it impedes the interpretation of the analyses, nor the implications of the results. In designing the survey

instrument, we followed best practices by Podsakoff, MacKenzie, Lee, and Podsakoff (2003) to minimize common method bias. Further, we analyze the data for common method bias and do not find any evidence that this issue inhibits us from analyzing the data and making meaningful inferences from those analyses. In fact, Spector (2006) suggests that the influence of common method variance in organizational research is vastly overstated. Additionally, our data are restricted to US-based entrepreneurs; thus, care must be taken in generalizing our results across the globe, particularly given that Kung et al (2016) found important differences for regulatory focus and message framing across cultures.

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Sustainability Dashboards:
A Tool for SMEs to Manage and Report on Sustainability Performance

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Abstract

This applied paper offers an introduction to the concept and potential application of sustainability dashboards by SMEs to meet the growing demands they face for sustainability management and reporting. It suggests how dashboards can be integrated into the planning and control systems of SMEs to facilitate data visualization for the purpose of sustainability decision making. The paper highlights benefits and includes a brief discussion of practical implications such as use of dashboards beyond sustainability management and the need for policy to provide better access to training and affordable software for SMEs.

Keywords: SME, sustainability, dashboards, accounting

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Sustainability Dashboards:

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Small to medium enterprises (SMEs) have large economic, environmental, and social impacts. A significant portion of the United States (US) economy, they represent 99.9% of all US businesses and employ almost half (47.5 %) of workers (SBA, 2018). Concomitant with their prominence in the global economy, SMEs have the potential to substantially impact the natural environment. For example, in Europe it's been estimated that SMEs are responsible for nearly two-thirds (64%) of the industrial pollution (Danish Technological Institute, 2010). Thus, sustainability is a growing concern for SMEs as global consumers, governments, and businesses awaken and commit to its importance.

The concept of sustainability centers around the need for organizations to operate in a fashion that does not diminish the opportunity for future generations and stakeholders to have their own needs met (Hubbard, 2009; World Commission on Environment and Development, 1987). This concept requires a long term perspective and must, by necessity, encompass not only economic factors but also social and environmental factors (comprising the three elements of the Triple Bottom Line).

Not only do SMEs tend to be more values driven (Sloan, Klingenberg, & Rider, 2013), but they currently are facing increasing demands for sustainability actions in the face of rapidly escalating consciousness and acceptance of its importance. There are increasing demands for public disclosure of economic, environmental and social impacts at the same time that large corporations are scrutinizing their SME supply chain partners' sustainability performance. Driven by a variety of forces, larger SMEs have joined in the movement to audit their own

supply chain partners. Investors and communities increasingly join in these demands for sustainability performance reporting by SMEs.

Systems for planning and control to provide feedback on the results of their business can enable SMEs to correct and adapt to changes in their internal and external environment to facilitate meeting sustainability goals (Braun & Tietz, 2018; Datar & Rajan, 2018). One such system, not yet explored in the literature, could be the use of a "sustainability dashboard" technology.

This applied paper offers an introduction to the concept and potential application of sustainability dashboards by SMEs for sustainability management and reporting. It highlights some possible benefits and includes a brief discussion of practical and policy implications.

SME Sustainability Reporting Requirements

SMEs are experiencing growing demand for disclosures of their economic, environmental and social impacts. Nearly all (93%) of the largest corporations by revenue generate corporate responsibility reports. Fully three quarters (75%) of the 100 largest corporations in 34 countries provide corporate responsibility reports (KPMG, 2017). Making public reports on the business's economic, environmental, and social effects is known as the process of sustainability reporting (GRI, 2017).

A number of different sustainability reporting agencies and frameworks exist. Nearly four hundred (383) sustainability reporting instruments existed globally by 2016 (KPMG, 2016). We mention only a few here that are most well known in the US. Requirements and standards for integrated and economic sector reporting have been developed by the Securities and Exchange Commission as well as the Sustainability Accounting Standards Board (Romero, Lin, Jeffers, & DeGaetano, 2014; Schooley & English, 2015). Perhaps the best known and articulated is The Global Reporting Initiative (GRI) methodology for sustainability reporting. The Global Reporting Initiative's (GRI) G4 reporting framework calls for supplier environmental assessments. In response to these forces, large corporations are increasing their number of supply chain audits with respect to their suppliers' environmental and social impacts (i.e. sustainability performance) (e.g., Intel, 2018-2019; Samsung, 2019). These corporations are working their way down supplier tiers by examining dollar purchases per supplier. Some are requiring suppliers to publish their own sustainability reports (Intel, 2018-2019). The Financial Stability Board, associated with G20, released a report with recommendations on climate-related financial disclosures in 2017 (FSB, 2017) .This report mentions the risks that companies are exposed to in their supply chains. These risks increase large corporations' propensity to audit their supply chains.

For a decade, the Carbon Disclosure Project, now known as CDP, has been sending out requests to suppliers to respond and fill out a lengthy online questionnaire to report on their environmental impacts. The supplier project started with 19 requesting organizations and has grown to 119 requesting organizations with purchasing of $3.3 trillion. Ten years ago, the CDP supply chain project had 634 suppliers respond to requests to report. In 2017, 5,500 suppliers responded to request for reporting, 2000+ of which were SMEs (CDP, 2019).

On a voluntary basis, SMEs may choose to attain B Corp® status as a way of demonstrating their ongoing commitment to sustainability. To become a certified B Corporation, the SME must complete the B Impact Assessment and earn enough points on its environmental and

social impacts to become a Certified B Corporation as determined by the privately owned B Lab organization (Honeyman, 2014). This sustainability reporting framework is designed explicitly for small businesses and social entrepreneurial startups. As of September, 2019, there were 3,038 businesses that were certified B Corporations across 150 industries and 64 countries (B Lab, 2019).

Larger SMEs are also beginning to audit their supply chains. These SMEs are driven by competitive pressures, compliance, company ethos, and personal motivation (Oelze & Habisch, 2018). The net impact of the increasing audits and reporting on supply chains is that many SMEs in supply chains are facing requests to report on their sustainability performance. Likewise, communities, customers outside an SME's supply chain, and investors are placing demands on SMEs for increased sustainability reporting (Caldera, Dewsha, & Dawes, 2019; Eccles & Kilmenko, 2019; PWC, 2019; Mathiyazhagan, Govindan, NoorulHaq & Geng, 2013). SMEs operate with a variety of well-known constraints characteristic of many small businesses, such as the lack of abundant financial and human resources (Nicholas, Ledwin, & Perks, 2011). SMEs typically face time limitations, limited staffing, limited expertise, and limited financial resources and, at the same time, can lack the management and organizational structure needed to develop processes to address sustainability (Schulz, Kraus, & Demartini, 2011). Some evidence suggests that, perhaps due to these constraints, some SMEs adhere to the most basic, simplest form of reporting that meets the minimum standards required of them for their needed certifications (Corazza, 2017). Yet, at the same time and aside from external demands, SMEs are flexible and tend to be more values driven (Sloan, Klingenberg, & Rider, 2013), so they may want not only to operate sustainably but also to demonstrate their commitment to sustainability by engaging in sustainability reporting and planning and control functions relative to sustainability performance, if they can. For this reason, any technology that can facilitate sustainability performance management may be beneficial.

Sustainability Dashboards

SMEs need systems for planning and control to provide feedback on the results of their business which can be used to correct and adapt to changes in their internal and external environments (Braun & Tietz, 2018; Datar & Rajan 2018). Sustainability reporting and performance management relies on the planning and control functions in an organization. Planning includes selecting objectives, strategies, programs, and actions to achieve the objectives as well as formulating and implementing budgets (Braun & Tietz, 2018; Datar & Rajan 2018). Control involves monitoring results and comparing actual to planned results to intervene and to provide feedback to the next round of planning (Braun & Tietz, 2018; Datar & Rajan 2018).

Currently, these planning and control systems in small SMEs are facilitated by the use of low cost and easy to use accounting software technology (e.g., QuickBooks). The proven value of such accounting software for an SME is in the ability to readily generate information and reports to monitor variables like sales, accounts receivable, accounts payable, customer revenues, inventory, and bank balance. These same systems can be used for sustainability-related performance. From an accounting perspective, sustainability-related accounts and performance measures (i.e., metrics) can be added within the accounting software to augment

existing accounting and operational information (Braun & Tietz, 2018; Venturelli & Pisili, 2005).

Another use of technology that is becoming common is data visualization. Consistent with the adage, "a picture is worth a thousand words", the ability to see a graphical presentation of information can help in understanding and recall. As cited by Ertug, Gruber, Nyberg, & Steensma (2018), there is longstanding evidence that people understand (Carney & Levin, 2002) and more effectively recall information when it is presented visually via imagery than when it is provided in written text (Shepard, 1967). Modern data visualization technology has emerged from the evolution of the field of data analytics over the past decade or more.

One form of data visualization is a dashboard (Few, 2013). Dashboards are the visual display of the most important information needed to achieve one or more objectives that fits entirely on a single computer screen (Few, 2006, 2013). This allows the information to be monitored at a glance (Few, 2006, 2013). Dashboards can display a variety of performance-related management information (e.g., total sales, sales by product or location, etc.).

Dashboards address the lack of structure that businesses can face in their attempts to integrate sustainability into business decisions (Kiron, Kruschwitz, Rubel, Reeves, & Fuisz-Kehrbach, 2013). Given the demands on SMEs for reporting their environmental and social impacts (i.e. sustainability), there is a great potential for the use of dashboards in the management of sustainability performance. For example, dashboards could be used to increase monitoring and adaptation to feedback. They could give visible feedback (i.e., monitoring and control) on sustainability-related performance goals. This encompasses performance measures related to sustainability goals such as recycling of outputs, use of recycled materials as inputs, use of electrical energy, waste, volunteer hours, donations to community organizations, percent of purchases from local sources, and so forth.

In practice, sustainability dashboards should be used by SMEs in their planning and control systems to actively manage their sustainability performance. During planning, SMEs will need to establish goals addressing reduction in their potentially negative environmental and social impacts. These goals are typically long term in nature. For example, Dell, Intel, Samsung, and UPS all use a ten-year time horizon for their environmental goals (Dell, 2019; Intel, 2018-2019; Samsung, 2018; UPS, 2017).

The goals established during planning by an SME should include goals that address their largest and thus most significant negative environmental and social impacts. For an SME embedded in a supply chain, it must anticipate being a participant in a large customer's supply chain audit to assess its suppliers' environmental and social impacts. This has been rapidly evolving over the past few years (i.e., report cycles). These supply chain audits now are major sections within the sustainability reports of many large corporations (Dell, 2019; Intel, 2018-2019; Samsung, 2018; UPS, 2017).

Supply chain audits include information on and discussions of a variety of sustainability performance measures like suppliers' energy use, Greenhouse Gas (GHG) emissions, recycling, waste, and water use. Once the goals for these kinds of sustainability-related performance measures are established in the planning process, a reporting structure for the goals and their related programs will have to be developed. New accounts will have to be added to an SMEs' chart of accounts associated with the expenditures for sustainability related programs (Venturelli & Pisili, 2005). Likewise, a set of performance measures will have to be

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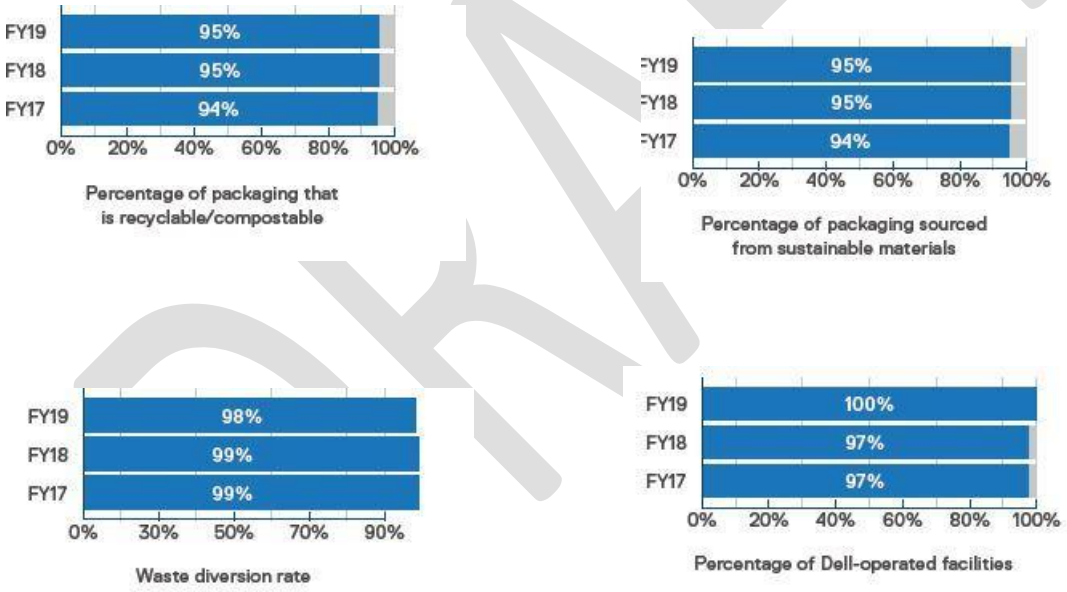
developed to access the outcomes of these programs (e.g., percent of waste bypassing the landfill, percent of raw materials consisting of recycled content, percent of purchasing dollars spent on local sources).

From a control perspective, dashboards can play an important role in the monitoring and control of these sustainability programs and their associated goals. For dashboards to function, they need to be attached to SMEs' data. By selecting performance data from SMEs' sustainability programs, dashboards can facilitate the control function. A well-designed sustainability dashboard can provide on a single screen the important performance measures for a particular program. This can make salient to a dashboard user anything which needs their attention by way of intervention (Rikhardsson &Yigitbasioglu, 2018; Few, 2013). Examples gleaned from large organizations include Dell's use of dashboards in its 2019 sustainability report to illustrate its progress on meeting sustainability-related goals (see Exhibit 1). Similarly, Harvard University uses sustainability dashboards to help manage its sustainability performance, (see Exhibit 2).

Exhibit 1
Dell 2019 Sustainability Report Dashboards



(with at least one sustainability-related program)

(Images reproduced from https://corporate.delltechnologies.com/en-us/social-impact/reporting/fy19-csr-report.htm#scroll=off)

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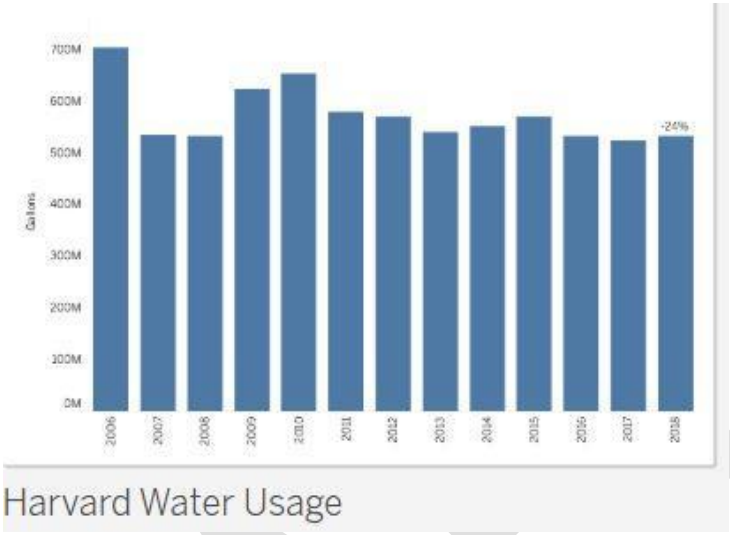
Exhibit 2
Harvard University Sustainability Dashboards



(Images reproduced fromhttps://public.tableau.com/profile/greenharvard#!/)

The use of dashboards in the planning and control systems of SMEs should help them manage and improve their sustainability performance. This in turn can help them to meet demands by their customers to provide evidence of and to improve on their sustainability performance as an SME. Moreover, the use of dashboards by SMEs can be facilitated by low cost and relatively easy to use software like Microsoft BI. Microsoft BI can link to a variety of software programs such as Excel and QuickBooks (O'Connor, 2019; Microsoft, 2019).

There are some specific factors that would assist SMEs and some that would have to be overcome to use dashboards to aid with sustainability planning and control. These are discussed in the following section of the paper.

Implications for Practice

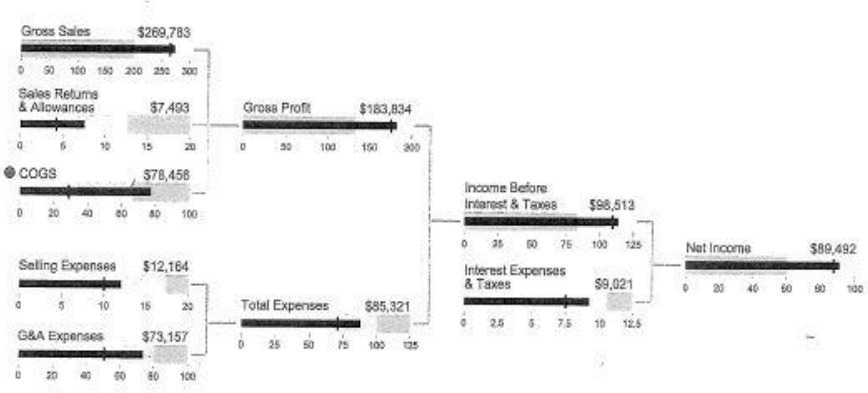
SMEs can take advantage of several facilitators to implementing data visualization in the form of dashboards. Lower cost data analytics software (e.g., Microsoft BI) that a user of Excel can readily learn (Noonpakdee et al, 2018) is available to facilitate the use of dashboards. The use of dashboards itself can save time during the processes of decision-making, monitoring of operations, and identifying goal achievement. This "at a glance" feature of dashboards is a benefit.

SMEs face several barriers to implementing data visualization in the form of dashboards that are consistent with the typical constraints with respect to financial and human resources faced by SMEs. There is a general lack of lack of knowledge about data analytics (Iqbal, Kazmi, Manzoor, Soomrani, Butt, & Shaikh, 2018). Further, many SMEs do not have electronic data (Noonpakdee et al, 2018). Lastly, the employees and owners tend to lack expertise at data visualization (Noonpakdee et al, 2018).

When barriers are overcome, an advantage is that dashboards also can be used for monitoring nonsustainability-related variables including key performance indicators such as sales-to-date or sales by product or by customers, receivables, payables, order backlog, order cycle time, or other financial data (see Exhibit 3) (Noonpakdee, Khunkornsiri, Phothichai, & Danaisawat 2018; Few, 2013). Data mining and data visualization also can be useful to identify opportunities in sales and marketing (Llave, 2017) and to minimize mis-targeting customers (Trieu, 2016).

Exhibit 3

Financial Accounting Information Dashboard



(Image reproduced from Few, 2013)

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Policy makers and agencies need to establish programs tiered to begin to address the integration of data visualization and dashboards in SMEs. The vast majority of programs today are focused on basics of how to start a business and manage its growth. The use of big data, data visualization, and data dashboards as management tools currently is underdeveloped. Similarly, there appears to be little emphasis on the sustainable performance of an SME. The implication for policy makers is that like the Small Business Development Centers' push for the use of accounting software technology in the form of QuickBooks in the years around the mid-2000s, a new impetus to deploy data visualization and dashboards within SMEs seems imperative. Analogous access to training and software should be a priority. Linking it to sustainability would help SMEs deal with the burgeoning sustainability reporting requirements they face.

Conclusion

SMEs stand to gain many benefits by adopting and using sustainability dashboards. By adding dashboards to their planning and control systems, we believe they can better manage their sustainability performance. By doing this, they can be positioned to meet the growing demand by customers, communities, and investors for disclosure of, reporting on, and improving on sustainability performance over time. Dashboards facilitate both decision making and monitoring by making a small set of performance data available at a glance. Finally, policymakers' embrace of advances in technology and dashboards is long overdue to facilitate the management of SMEs, specifically with respect to the need for SMEs to fully embrace the sustainability impacts of their businesses today.

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Sales and Use Taxes: Further Investigation of the Growing Administrative and Compliance Costs for Small Businesses

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Abstract

Since the 2018 ruling from the Supreme Court on South Dakota v. Wayfair, the discussion of sales tax collection and its impact on small and micro-sized businesses has become increasingly heated. As the cost of sales tax compliance for the small business owner is six times greater than that of the large retailer (PricewaterhouseCoopers, LLP, 2004), researching methods small business owners use to ease their sales and use tax collection burden is beneficial for aspiring entrepreneurs wishing to learn best practices and state regulators desiring to help ease the burden.

This study explores the accounting and administrative burdens that the collection of Colorado sales and use taxes place on small and micro-sized entities, how small business owners attempt to efficiently and inexpensively navigate the requirements, and the role regulatory agencies play in helping navigate this regulatory burden. The project utilizes an interpretivist perspective using data obtained from 50 semi-structured interviews with small and micro-sized business owners and managers in Colorado. In addition, a further six interviews were conducted with representatives from various Colorado tax-regulatory agencies to investigate the levels of sales tax support and guidance currently being provided, and two interviews with tax and accounting professionals to provide a better understanding of the compliance issues.

The interview data identified a range of important themes and issues related to the sales tax impact on small businesses, which included: the relative importance of sales tax revenues, the complexity and confusions within the system, the push for online filing, a lack of audit and educational resources, the importance of record keeping, the use of accounting software packages, and the reliance on costly third-part accounting services and tax advisors. Despite some assistance from tax regulatory agencies, small and micro-sized entities in Colorado face sizeable accounting and administrative regulatory burdens from the sales tax process that consume valuable management time. In the end, the most common way small businesses manage their cost and regulatory compliance burdens is through the use of an accountant or bookkeeper.

Keywords: Sales Tax, Colorado Micro Business, Accounting

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Introduction

Background to the study

Since the June 21, 2018 Supreme Court ruling on *South Dakota v. Wayfair*, the discussion of sales tax collection and its impact on small businesses has become increasingly heated. This Supreme Court decision, as well as other debates about sales tax, is most commonly viewed from the perspective of large retailers, such as Wayfair and Amazon. However, what is the impact on the small, or micro-sized business entities? The *Wayfair* decision has granted states the authority to impose sales tax on retailers if it does not impose undue burdens on interstate commerce (Bishop-Henchman, 2018). An equally important and unexplored concern is the potential impact of the case for the operations of small retail entities.

This study explores how Colorado small business owners manage the accounting and administrative burdens that the collection of Colorado sales and use taxes place on small and micro-sized entities and the role regulatory agencies play in helping such entities navigate this regulatory burden. The research focuses primarily on small and micro-sized entities, defined as businesses with fewer than 50 employees. There is also a focus on the governments of home rule cities, which are governments that levy and collect sale and use taxes separately from the state. The goal is to gain a better understanding of potential challenges in the sales tax system utilized by the State of Colorado and how successful small business owners navigate these challenges.

Intertwined with the sales tax burden is that of use taxes. While this study focuses primarily on sales tax, use tax is also relevant. The *Wayfair* decision, as well as prior cases surrounding sales tax, concentrated heavily on use tax when discussing sales and purchases outside of a state. Use tax is required to be paid to the state if a purchase of an item is made outside of the domicile state but will be used in the domicile state. It was at this use tax level that Colorado first began its campaign of taxation of internet sales by targeting online retailers, but use tax compliance is not reserved for only online retailers, brick and mortar retailers are also subject to use tax. Online retailers who sell to customers in Colorado must notify their customers of potential use tax and must file a report with the Colorado Department of Revenue outlining purchases made by local residents, including names, addresses and amount spent (Erb, 2016).

Sales taxes within the United States are a crucial part of the country's economic structure. A 2012 study estimated that sales tax accounted for nearly one-third of state taxes and a quarter of state and local taxes (Bruce, 2013). Sales and use taxes in the US are highly complex because the tax rates are not only different in every state, but can also be different in each locality of every state. Due to the complexity of sales tax, the "reliance on vendors is necessary because it would be infeasible for state revenue departments to collect retail sales taxes on 'countless' transactions on their own" (Cornia, 2000, p.1327).

Despite such a large reliance on sales and use tax on a national level, few research studies have explored the burdens that tax collection imposes on small businesses. In its 2017 survey of small business regulations, the National Small Business Association (NSBA, 2017a) only 8 percent of small businesses reported sales tax as the most burdensome tax from an administrative perspective. However, the report also asked respondents about different potential burdens related to sales tax. When specifically discussing sales tax, 57 percent had "significant concern" on

navigating various state tax rules and deadlines, 56 percent had the same level of concern for keeping abreast of state tax changes, whether in rate or payment date, and 45 percent of respondents had significant concern about the threat of tax liability in case of inadvertent errors as well as the threat of increased audits (NSBA, 2017a, p.10). The report also estimated that one-third of sales tax filers spent at least a full work week each year on sales tax compliance issues.

All but five states in the US rely on sales tax as a significant portion of their revenue. Washington is the highest, with over 45 percent of their revenue from the collection of sales taxes (Scarboro, 2017). The 2017 Colorado Department of Revenue Report estimated that one-third of the State of Colorado's income is based on sales tax, and that home rule cities rely on sales tax for up to 80 percent of their revenue each year (Colorado Department of Revenue, 2017, p.4). Because of the reliance on sales tax, Colorado's sales tax structure can be complicated. As of 2013, there were 294 different sales tax jurisdictions within the state, including 69 home-rule cities, 51 counties, 152 statutory cities and towns, as well as special districts. As a result, sales tax rates may vary within a city or zip code due to overlap between taxing jurisdictions. In total, there are currently approximately 756 different sales tax rates and bases within Colorado (Colorado Department of Revenue, 2017, p.2).

Colorado uses information from multiple databases to help businesses determine their tax rates, although a state-conducted audit of tax year 2014 discovered that nearly 11 percent of reviewed businesses were found to be paying tax to the incorrect jurisdiction, which resulted in $3.3 million in over-collection and $3.8 million in under-collection (Colorado Office of the State Auditor, 2015 p. 1). Each of these jurisdictions may also change what is or is not taxable at their specific sales tax rate. At a state level, Colorado offers exemptions on 15 categories of items such as food for home consumption, farm equipment, and property used in space flight. Individual jurisdictions have the ability to remove these exemptions and apply their sales tax to that specific category. As a result, while the state may not tax groceries, cities may still impose their tax to the sale. These exemptions can vary widely from place to place, as can the definition of items under each category.

The collection of these taxes can be equally complicated. While the state collects for smaller cities and a majority of the counties, home rule cities require businesses to make separate payment directly to that governing body. Businesses must acquire a separate sales tax license for these cities and pay them directly. The remittance methods can vary by location, with some cities opting for online remittance only while others may only take paper payments, and others offer both methods.

Colorado governments have started to recognize these potential burdens. In 2017, the Colorado state legislature created the Sales and Use Tax Simplification Task Force. The Task Force is seeking to simplify the entire taxation process, including the adoption of uniform definitions for product types and the feasibility of implementing a centralized remittance system that would allow businesses to pay taxes to state-collected entities and home-rule cities from one place.

Because of the above discussion, small and micro-sized entities in Colorado are relied upon to accurately collect a significant portion of Colorado tax revenues, despite having to navigate a potential complex and cumbersome taxation process. Is this regulatory burden acknowledged by

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regulators, and to what extent does it adversely impact the internal efficiency and operations of such entities?

Literature Review

Regulation plays a key role in many aspects of our society. Kitching writes that the primary purpose of regulation, from the perspective of government, is to maintain and enhance the conditions that enable an advanced market economy to function (Kitching, 2008, p.800). He continues by writing that, "as far as any particular small business is concerned, regulation can affect it directly or indirectly (Kitching, 2008, p.801). An example of this direct influence includes tax payment.

Regulation, if not designed and implemented properly, could adversely affect small businesses. Patton suggests that, "small businesses are a vital source of economic growth in the United States. Reducing their cost for complying with the tax code may free up resources to expand, hire new employees, and contribute to the growth of the U.S. economy" (Patton, 2016, p. 7). Since tax payment directly affects a small business, it causes certain burdens to the business and its owners. Research has highlighted that tax compliance burden includes time and money spent by the business to meet its tax obligations (Patton, 2016). Patton (2016) continues, writing that, "time spent on tax activities can include working with a paid professional, tax planning, keeping records, completing forms, submitting forms, learning tax laws, and working with IRS on tax issues while monetary burden can include expenses for hiring a paid professional to file taxes, investing in a tax software system, paying for payroll services, and legal fees" (p. 7). Furthermore, in a study by the IRS about the cost of regulatory compliance, it was apparent that as a business grows, so does its overall compliance cost (DeLuce, 2007).

Within the NSBA's *2017 Small Business Regulations Survey*, 58 percent of respondents viewed federal regulations as the most burdensome to their business, and 23 percent saw state regulations as being burdensome (NSBA, 2017a). Rather surprisingly, 12 percent of respondents had no idea as to the type of regulation that most affected their businesses. In the NSBA's *2017 Small Business Taxation* Survey, the largest burdens posed by the federal tax code were ranked as follows; financial cost to the business (38 percent), complexity and the concern over getting audited (22 percent), administration of tax forms and the time it takes (14 percent), and amount of paperwork that must be completed (8 percent). As financial and administrative issues are major issues for most small businesses, sales tax represents one of the most burdensome taxes that most small businesses face after income taxes, payroll taxes, and state and local tax compliance (NSBA, 2017b). Pedro Alfonso, NSBA Chair, and Todd McCracken, NSBA President, suggest that "while the financial tax liability for small firms is a huge issue, administrative complexity continues to pose an even bigger problem", and that "unfortunately, the current U.S. Tax Code is becoming an insurmountable hurdle for the growth of existing businesses and creation of new firms" (NSBA, 2017b).

Problem Statement

The general problem to be addressed is how to manage the burden of sales tax compliance costs on small business owners. A 2004 study conducted by PricewaterhouseCoopers, LLP (PwC) found that the average sales tax compliance cost for small businesses within the United States (US) was more than six times greater than that of

large retailers (PricewaterhouseCoopers, LLP, 2004). This study also found that the top three sales tax compliance areas for small businesses were return preparation, documentation of tax-exempt sales, and training of personnel on sales tax. The National Small Business Association (NSBA), when asking small business respondents about sales tax burdens, found that fifty-seven percent had significant concern about navigating various state sales tax rules (NSBA, 2017).

The specific problem to be addressed is how Colorado small business entrepreneurs manage the burden of their sales and use tax compliance process and what Colorado regulatory agencies are doing to help the small business owner. Business planning increases business performance (Brinckmann, Grichnik, & Kapsa, 2010). State legislatures acknowledge that Colorado receives an F when scoring its ease of sales tax compliance and is attempting to make regulatory efforts to help ease sales and use tax compliance costs (Frieden & Nicely, 2018). As each small business is subject to sales and use tax laws, understanding how successful small business owners manage the compliance cost processes may offer valuable insight to both regulators and aspiring entrepreneurs.

Purpose Statement

The purpose of this qualitative study is to acquire an understanding of how Colorado small business owners perceive and manage their sales and use tax compliance process. When small business owners were asked who in the business spent the most time on regulatory compliance, forty percent responded that the owner, himself, was responsible (NSBA, 2017). While larger firms may more readily rely on tax professionals to manage tax compliance issues, the small business owner relies upon himself to research and comply with regulatory burdens (NSBA, 2018).

Relatively little literature is available on sales and use tax compliance as other tax and regulatory burdens weigh more heavily on the small business owner (NSBA, 2017). However, with the recent Supreme Court ruling on the *Wayfair* case, an increased focus on sales and use taxes has already started to occur (Luscombe, 2018). As new regulations emerge, the small business owner is continually tasked with staying abreast of the changes and facilitating the additional workload that may accompany those changes. Understanding how a successful small business owner manages this process may not only help offer guidance to emerging entrepreneurs, but may also help enlighten regulators to burdens not easily discovered through purely quantitative methods alone.

The specific aims are to investigate the following research questions.

1) How do Colorado-based small businesses successfully manage the burden of the collection and payment of sales and use taxes?
2) What role do governmental agencies play in assisting small businesses with the collection and payment of sales and use taxes?

By adding new findings to the limited research presently available on the topic, the study will reveal new insight about the problems small businesses face and how they successfully manage their sales tax compliance responsibilities.

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The next section outlines the research design and methodology for the study. Separate sections then examine the interview data from the perspective of both regulators and small businesses. The conclusion section then draws these together to explain how the study contributes to the existing literature on understanding how sales and use taxes affect small businesses.

Methodology

This study will use a narrative research approach by conducting personal, semi-structured interviews with approximately 50 successful Colorado small business owners and/or managers, defined as businesses with under 50 employees. The overall aim of the interview is to understand the owner's perception of the sales and use tax process, how she or he manages the process, and any recommendations for how to better improve the compliance process. This study will also interview state regulatory personnel with the aim of understanding what the state is attempting to do, if anything, to help ease the compliance burden.

The project adopted an interpretivist perspective using interviews to explore "data on understanding, opinions, what people remember doing, attitudes, feelings and the like, that people have in common" (Arksey and Knight, 1999, p.2). A survey-based study was rejected due to its inability to elicit detailed data from the respondents, since the subject matter concerned the tax compliance practices of interviewees who may be reluctant to be truthful about such issues in a formal survey.

Semi-structured interviews were conducted with two populations of interviewees: tax regulators and business owners/managers of small and micro-sized entities.

- The tax regulators interviewed were officials from home rule governments, which are responsible for the enforcement and collection of their own municipal sales and use taxes, and representatives of the state's sales and use tax force.
- The Colorado small business owners interviewed, defined as businesses with under 50 employees, were business that would be expected to pay some form of sales or use tax. This scope includes retailers with storefronts, as well as home-based businesses and mobile businesses that offer products or services in areas with varying sales tax rates. The overall aim of the interviews was to understand the owner's perception of the sales and use tax process, how she or he manages the process, and any recommendations for how to better improve the compliance process.

In total, 165 businesses and 11 regulatory agencies in Colorado were approached as potential sources of interviewees. From these contacts, a total of 58 interviews of between 20-40 minutes were completed with interviewees, including:

- 50 representatives of small and micro-sized entities (2 interviews within one business)
- 6 representatives from Colorado-based tax regulatory agencies, including interviewees from the Finance and Tax & Licensing Department and the Colorado Sales and Use Tax Force participated in this research.
- 2 tax professionals and certified professional accountants

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Interviewees were given information about the nature and purpose of the research and permission was required to record the interviews. They were made aware that the report would include anonymous quotations and that identifying information would be removed prior to publication of the final report. Most of the interviews were recorded and interviewees were offered a copy of the final research report.

The 49 small and micro-sized businesses within the interview sample were located in a variety of locations within the Denver metropolitan area and represented a wide range of industry-types that each had substantial sales tax compliance issues. Table 1 provides a breakdown of the 49 small businesses by business type.

Table 1 Small Business Participants – Type of Business

Type of business	Percentage
Retail Stores	34.7%
Food and Beverage	20.4%
General Merchandise Stores	18.4%
Misc. Services (with items Sold)	16.3%
On-Line Retailer	6.1%
Non-Profit	4.1%
Total	**100%**

All 49 companies employed less than 50 employees, with the majority having between 2-8 full-time staff. Table 2 illustrates the length of time each business had been in operation, with the majority being in existence for more than 5 years.

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Table 2 Small Business Participants – Years in Business

Years in business	Percentage
More than 5 Years	49%
3-5 Years	26.5%
1-2 Years	12.25%
Undetermined	12.25%
Total	**100%**

Table 3 provides data about the sales tax reporting frequency for each of the 49 small entities and illustrates that most small business interviewees were from entities that collect more than $300 per month in sales tax. Identifying this characteristic is vital, since it highlights the importance and magnitude of sales tax compliance issues for each entity. The frequency of filing sales is determined by the Colorado Department of Revenue and is a function of the typical amount of sales tax collected each month. (Colorado Department of Revenue, 2017), which is as follows:

- $15 or less collected per month – Annually
- Less than $300 collected per month – Quarterly
- More than $300 collected per month – Monthly
- Businesses that pay more than $75,000 per year in state sales tax – Pay by Electronic Funds Transfer due on the 20th day of the month following the reporting period.

Table 3 Small Business Participants – Sales Tax Filing Frequency

Frequency of Filing	Percentage
Monthly	39%
Quarterly	31%
Annually	8%
Unknown	22%
Total	**100%**

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Table 4 provides contextual information about the entities use of accounting or bookkeeping software to help track the collections of sales tax monies. Twenty-six, or 53 percent, of the entities interviewed used a dedicated software package or point of sale to help charge and track sales tax receipts, and a further 12 percent used computer-based spreadsheet packages to assist with tax record keeping.

Table 4 Small Business Participants – Administrative (Software or System)

Type of System	Percentage
Software or Point of Sale System	53%
Built-In Computer Program (Excel, Google Sheets)	12%
No package discussed	35%
Total	**100%**

Finally, Table 5 illustrates that 42 percent of business owners acknowledged the use of third-party accounting and tax advisors to help manage the collection and payment of sales tax collection. This regulatory compliance cost is potentially a barrier for entry into the small business marketplace, but the use of third-party accounting and tax advisors appears to be the most common method for small business owners to deal with their sales tax compliance burdens.

Table 5 Small Business Participants – Administrative (Professional Assistance)

Type of System	Percentage
Accountant / Bookkeeper	53%
Help from Family Members or Friends	6%
Owners Perform Accounting Duties	6%
No data available	35%
Total	**100%**

Interview Findings

The interview was analyzed using a thematic approach, which entailed identifying themes from interviewee's responses and grouping them into categories that share a common characteristic. The themes were first identified separately for both the government interviews and the business interviews. Further analysis was done to identify where themes from the

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interview sets may have overlapped. The next sections report on the sales tax-related themes discovered during the interviews.

Findings from the Regulatory Interviews

Introduction to Sales Tax in Colorado

Governments throughout the United States are reliant on sales and use taxes, and Colorado is no different. The 2017 Colorado Department of Revenue Annual Report highlighted that of $3,971,573,409 net collections, sales tax represented more than 60 percent of this amount ($2,596,355,335) (Colorado Department of Revenue, 2017). In addition, 13 of the biggest cities in Colorado obtained more than 50 percent of their total revenue from sales and use taxes during 2016. With these statistics, it is evident that Colorado is heavily reliant on the collection of Sales and Use Taxes.

Colorado's taxing entities can be broken into four different groups.

1) Self-collected home rule cities/counties — these are government entities that administer and enforce their city-specific sales and use tax. The methods of enforcement and collection are up to the specific governing body. Remittance of this tax goes directly to the government instead of through the state.
2) State-collected cities/counties — these are government entities that have specific sales tax but rely on the state for enforcement. All remittance is done through the state website and then disbursed to the respective entities.
3) Regional Transportation District (RTD) and Scientific and Cultural Facilities District (CD) Taxes — these are state-collected taxes that apply to specific areas within the Denver metropolitan area. RTD taxes go to the regional transportation district and CD goes to the Cultural Facilities District.
4) Special District Taxes — Similar to the RTD and CD taxes, these are state-collected taxes for different purposes, such as local improvement districts or transportation systems around the state.

These taxes overlap with each other, meaning that in one transaction, a business may be required to collect and remit RTD, CD, state, and county tax through the state portal, in addition to a separate city tax. There are 756 possible taxing combination within the state of Colorado due to the taxing structure of the state. The Colorado Sales and Use Tax Simplification Task Force estimated that sales tax within Colorado produces 69 percent of municipal tax revenues, which is much higher than the municipalities of other states, which are estimated at 17 percent. The reasoning for this is credited partially to two amendments to the state legislature: The Gallagher Amendment and the Taxpayer's Bill of Rights, known more commonly as TABOR.

TABOR, which was voted into the Colorado Constitution in 1992, requires voter approval for tax increases and limits the amount of revenue that can be collected from tax sources. If the state of Colorado collects more tax than allowed per TABOR, which is roughly based upon the state's revenue and population growth, it is required to refund the money to taxpayers (Colorado Leglislative Council Staff, n.d.). Gallagher was implemented in 1982 and limits Colorado's residential property tax to 45 percent of the state's property tax base. The purpose was to help maintain a constant ratio of property tax revenue that came from residential and commercial

property (Colorado Department of the Treasury, 2018). With home values rising more rapidly than that of commercial buildings, the adjustments to maintain the 45 percent level mean that property tax values are being cut and limiting the income that cities can get from those taxes. Overall, these elements combine to create a taxation structure that is both complex and heavily reliant on individual businesses collecting sales tax.

All regulatory interviews were conducted with representatives with home rule cities. The themes discovered during the interviews, and especially the regulatory perspective on the small business burdens created by sales and use tax, will now be discussed in more detail.

Main Themes from the Regulator Interviews

Reliance on Sales Tax

As noted above, Colorado's home rule cities rely very heavily on sales tax, which was something clearly noted by all government representatives.

> *"Sales tax is the number one driver of revenue for the city."*
> *(Government 3)*
> *"Ultimately we need it to fund the services we provide … if we have a 1 percent variance in our sales and use tax, that's 2.3 million dollars that we lose out on."*
> *(Government 5)*

One government official said that the reliance on the taxes are due, at least in part, to amendments to Colorado state constitution, which were discussed previously.

> *"Compared to other states, we are much more reliant at the city level on sales and use tax than other states are at the municipal level. That has a lot to do with how Gallagher and TABOR have functioned and have really limited the growth on the property tax side."*
> *(Government 5)*

Problems auditing small business sales tax collections

The primary methods home rule cities use for enforcement are a mix of comparative statements and audits. The comparatives use previous data, either from the business being audited or a similar type of business, to find potential issues. Full sales tax audits of small businesses were surprisingly rare, both due to the huge number of such entities and the fact the regulatory agencies had limited staff to perform audits.

> *"The problem for us is that we only have three auditors and 6,000 businesses. They average 20 to 30 audits a year, so they're really going after the big guys."*
> (Government 4)

In addition, regulators were more concerned with investigating businesses with higher, material taxable liabilities.

> *"We engage in audits, more of the bigger businesses, but at times the smaller businesses. Again, it's hard to know that every single business is paying the right amount because we can't audit everybody. We just don't have the manpower to do that."*

(Government 2)

Confusion on Tax Rates and Exempt Items

The government representatives interviewed indicated that it was generally easy to determine the sales tax rates within their city. Only one city official was outwardly concerned, which had to do with the fact that the city overlaps multiple counties.

> *"I think (our) sales tax code is relatively straight forward. There's probably not a lot of complexity. The cities or the state that have food for home consumption as exempt, that's probably harder."*
> (Government 1)

The larger concern is with exemptions on different kinds of items. While the state exempts certain classes of items from taxation, every other taxing jurisdiction can choose whether those items can be taxed within that jurisdiction.

> *"A small business that doesn't have a background in tax struggles with that. They say 'Oh, this stuff is nontaxable,' so they'll file the state return and use the same numbers for the (city) return. Well, they neglected to pay taxes on stuff that's taxable here."*
> (Government 5)
> *"Colorado has a very fragmented system. Sales tax requirements in (city) are different than (neighboring cities) and all over the place, so that definitely causes confusion, especially for those people that operate multiple facilities throughout the region. That's a real concern."*
> (Government 3)

The interviewees said that there are resources available to help in cases of confusion and they will have auditors talk with businesses for clarification. Even then, it can be tricky for staff. One interviewee works in economic development, a role that includes helping bring new businesses to the city.

> *"From a staff perspective, it gets confusing as well. At least on the economic development side, we'll have prospects that come in and ask about sales tax, what will they pay sales tax on, what won't they pay sales tax on, sometimes it's not a cut and dry answer. We're going back and saying 'What category does this business fit in?' … We're constantly going back to the code and looking to make sure we are following our own rules."*

Sales Tax Education and Understanding for Small Businesses

All of the government representatives interviewed for the project suggested multiple ways for small business owners to better understand the sales tax system. All the interviewees stated that their city offered educational classes, whether online or in person, and provided help from their auditors to new businesses. Many of the cities also had small business development centers that offered a wider array of resources for upstart businesses.

> *"Oftentimes when people are starting businesses they come into our offices and our staff walks them through it and tries to provide hands-on customer service and answer any questions they might have."*

(Government 1)

One government official even noted that meetings with new businesses can be relatively simple, depending on their records.

> *"A lot of these are pretty quick. The biggest challenge in the small business environment is the computer system. Some have good ones, some have cash registers."*
> *(Government 4)*

Some cities even attempted to use audits as a form of education for the businesses.

> *"That's a big part of what the audit's about is education. … We tell them it's part education and try not to make them feel like criminals. Most of the cases, it's not fraud. Ninety-nine percent of people want to do things right and we try to let them know that, and I think that comes across in most cases. There's just a few things here and there and all we care about is substantial compliance."*
> *(Government 5)*

Businesses of Concern

Delivery-based and mobile businesses were the types of business that all the government representatives consistently described as being at the most risk for sales tax related errors. This includes businesses such as food trucks or sign companies.

> *"The toughest situation is for the subset of businesses, which is not the majority that operates in multiple jurisdictions. They have the toughest go of it, especially if they're small."*
> (Government 5)
> *"Home Depot charges (city) tax because you bought it there but a printing press company, a guy who installs solar, someone who does heating and air conditioning. Depending on how they define their item, they can technically be selling it at a different location and it's a completely different tax. … We get a lot of pushback from those companies going 'What the hell?'"*
> (Government 3)
> *"If I've got QuickBooks or some other system that's sophisticated enough, ok. But if I'm a small business person humping it to make money, I may not take the time to figure it out. All of a sudden I do a $500 job and a $10,000 deal here, a $10,000 deal there, I don't know whose it is and that becomes hard."*
> (Government 3)

One government official also raised concerns with compliance on items such as candy, which can be subject to different taxes based on its jurisdiction. The definition of "candy" can vary between locations. During the interview, this government representative pulled out a grocery bag full of items and asked the interviewers to help decide what was "candy" and what was not. An item like a Kit Kat bar, which contains flour-based wafers covered in chocolate, is not taxed as a candy because it contains flour, where a bag of M&Ms does not and will be taxed as a candy. Similarly, items with similar packaging and branding may or may not be subject to tax based on a small list of ingredients.

"It's hard for the big guys to do that because if it's food sold for immediate consumption, it's taxable. If it's candy, it's taxable."

Push for Online Filing

Within Colorado, there is no standard system that small businesses use for remitting sales tax receipts. Although the State has an online portal for the state-related monies, each of the home rule cities uses their own bespoke systems. Some collect through independent online filing systems, while some still only offer paper remittance, and others offer both. Despite the discrepancy in systems, there was a strong preference towards online systems, even if cities have not fully implemented them.

"Not being able to offer that for a lot of businesses is a nuisance to them that they have to file on paper. I think a lot of people want to get out of that. It's just an extra, cumbersome process." (Government 5)

One government official said online systems have the potential to eliminate overpayment or underpayment of taxes.

"The online calculator basically helps to eliminate mistakes. If you key in sales, it's going to calculate everything for you."
(Government 4)

Steps Towards Simplification

While there may be points of confusion, governmental agencies throughout Colorado have started working together to help simplify the sales tax process and provide better understanding of the rules for both regulators and businesses alike. The Colorado Municipal League, a nonprofit and nonpartisan organization that acts as a voice for the cities and towns around Colorado, is in the midst of a project that aims to standardize definitions for 106 different items and categories of items. The standardized definitions have been adopted by 53 different cities and towns as of August 14, 2019.

"Over the last three-plus years now, there's been an effort to standardize our sales tax definitions so that 'grocery food' means the exact same thing in all 79 cities. Some may tax it, but the definition is standardized, which eliminates some of the gray of 'what do you mean by it', is it really taxable or exempt. We've really done a lot of work to standardize definitions." (Government 2)

Additionally, Colorado legislature formed a Sales and Use Tax Simplification Task Force prior to the 2017 session. The task force investigated multiple ideas, including both the standardized definitions project and the potential for a single website that would allow business to remit their tax to both the state and each of the home rule municipalities. The governments believe that this would make compliance easier for business owners, especially those who owe tax in multiple places.

"Currently somebody like that would have to pay each city separately. They'd have to go into each website to remit online or, in some cases, mail in a paper form and a check and they have to do it all over the place. We're trying to work towards a platform online

where those businesses can go in, and in one shot they file their returns for all their obligations and do one wire transfer into that portal and have the portal disburse the funds to everybody and make it easier for them."
(Government 2)
"You have to reduce the number of touches that those people have to deal with. If you have to start taking the cities and districts charging on top of that, it becomes extra complicated for people to realize when and where they should be charging that."
(Government 4)

Other Tax Issues Raised

While most of the interviews focused on sales tax, use tax was a high concern for nearly all the interviewees. The tax essentially levies a sales tax on an item purchased outside of the taxing area, with the idea that if the item had been purchased there, it would have been subject to the sales tax. Like sales tax, use tax can vary between places. One government representative interviewed only had a small number of items subject to use tax in his jurisdiction, while the others interviewed had a much broader scope of use tax and placed it as a high priority.

"That is the most prevalent situation where businesses underpay is in use tax area and that's the primary revenue that our auditors find when they conduct audits of business."
(Government 2)

The government representatives said that use tax is harder to implement and typically needs to be found in an audit.

"They are familiar with certain types of businesses that would typically have more, like manufacturing facilities typically have more use tax obligation than others because they'll be bringing in equipment from outside the city."
(Government 1)

With that in mind, multiple government representatives said smaller businesses tend to pay the required sales tax on the front end of a transaction.

"A lot of smaller businesses, it's more likely they'll be purchasing things they use in their business from a local retailer. The audit staff definitely pays attention to, and has on their work plan, ways to look at the businesses that have a use-tax obligation."
(Government 1)
"The bigger businesses have figured it out and complied pretty well. A lot of the smaller businesses choose to just pay sales tax up front."
(Government 4)

Discussion of the Regulatory Interviews

Although Colorado's sales tax rules and rates can be complex and confusing for small businesses, the regulatory bodies appear responsive to this regulatory burden. While the government agencies will never know the level of compliance at all businesses within their communities, there is a general sense that businesses are making a substantial effort to comply with sales tax rules. Unfortunately, many of these cities contain hundreds or thousands of businesses, meaning that small and micro-sized entities can slip through the regulatory net.

Given the low rates collected by each taxing body, small and micro-sized entities may not make enough sales to be a priority for enforcement. Compliance concerns seem to be more in the realm of use tax for larger companies and the difficulties that come with tracking purchases that need to be reported.

Colorado's regulatory bodies recognize that there are weaknesses in the sales and use tax collection system and have started to be proactive about making changes that allow them to continue collecting their share of revenue while still making things easier for the businesses that must remit the taxes. The standard definitions project should allow for more clarity about what items fall under which categories, and the eventual goal of a statewide remittance system could make compliance significantly easier for businesses operating in multiple jurisdictions.

Findings from the Small Business Interviews

Introduction

Small and micro-sized business entities play a significant role in Colorado's economy. Based on the U.S. Small Business Administration Office of Advocacy *2018 Small Business Profile*, Colorado has more than 600,000 small businesses, which is equivalent to 99.5 percent of all Colorado businesses. These small businesses employ 1.1 million workers; 48.6 percent of all Colorado employees. These small businesses are engaged in a variety of industries, from accommodation and food services, construction, manufacturing, arts and entertainment, real estate and rental leasing, retail trade, and wholesale trade (US Small Business Administration Office of Advocacy, 2018). For this study, most small businesses interviewed came from either the retail trade or food service industries.

During the small business interviews, several common issues emerged: (1) proper filing of sales tax; (2) administrative support; (3) interaction with the regulators; (4) sales tax collection for cash businesses; and (5) the risk of a sales tax audit. The themes of the interviews with the small businesses are below.

Themes from the small business interviews

Sales Tax Filing

There are different sales tax requirements within the state of Colorado dependent upon amount of revenue, type of business or location of the business entity. All businesses have the option of either filing their stated state sales tax returns online or on paper, however, some municipalities still require paper filing. The 2017 Annual Report of the Colorado Department of revenue found that 82 percent of returns were filed online. This is a dramatic increase from 2013 where only 50 percent of businesses filed their sales tax returns online. With most of the businesses interviewed filing either monthly or quarterly, a minimum of four filings per year allowed the interviewees ample opportunity to form opinions about the filing requirements. While utilizing online filing is done for convenience, the general feedback of the online system was negative for those businesses that filed their own sales tax returns.

> *"The website is atrocious, clickable items are determined by color but you have to move your mouse across the page to see if something can be clicked on". (Retail Store 12)*

"Their website sucks, you click one link to go to another that you then have to click another link, that then they give you a non-specific PDF form that you have to search through". (Gen Merchandise Store 9)

"The website looks like it was designed more than 10 years ago, it's annoying." (Retail Store 6)

"We are a trapped party we have to figure this out. If you evaluated their website and presented it in a way an independent person could figure it out, it would be better." (Retail Store 12)

Those who filed their own sales tax returns generally had a confusing and negative time with online filing. However, those who used a technology such as a sales tax software, a spreadsheet package such as Excel, or tools built into online sales platforms, did not find the actual filing of taxes difficult."

"It was a piece of cake. I just filled out the information on their online form and submitted it. They verified I was living at the address, was going to do this and that, and mailed it to me and I was ready to go." (Online Retailer 1)

"I think most of the business owners do it. It's quick. You go online, you file it, it's like a five-minute process." (Retail Store 15)

Small business owners that used a software package to track sales tax use provided that it was not the dollar amount of sales tax that negatively affected their businesses, but rather the time it takes to file.

"In [my line of work], it is commonplace to have a hundred clients a year – each in their own city/county combination. At the end of the quarter, it takes me a solid weekend to compile all the jobs I had into Avalara, and make the appropriate payments." (Retail Store 16)

"Last year, I had to make local payments to over 20 different governments, and it took me a solid day of work to make sure each government got their tax." (Service Provider 1)

"The first year I did it, I underestimated how long it was going to take to make the payments to all the governments. Each one had their own system and it took an entire week to figure each one out." (Service Provider 1)

Some of the small business owners also expressed that doing business in other jurisdictions would be too complicated and time consuming with the different tax rates. As a result, they only operate where they are comfortable.

"When I was looking into opening a second location in Longmont a few years back, I was shocked at all the additional licenses I needed to acquire and additional expenses." (Service Provider 2).

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Administrative and Technical Support

Over half of the small business owners and representatives interviewed used a software package or Point of Sales system to track their sales tax obligations. An additional 12 percent used readily available software packages, such as Excel or QuickBooks, to track their own sales tax obligations.

> *"We use a POS System that tracks every single transaction, it tracks every single discount, every single voided transaction. It also breaks down individual line items. On our end it's really easy because we have this automated system, we're not in the Stone Ages where we have to calculate everything on paper." (Food and Beverage 4)*

Most notable was the fact that over half of the small business owners interviewed retained an accountant or bookkeeper to track and remit their tax obligations. When looking at small business owners who had been in business for over five years, more than 92 percent hired an accountant or bookkeeper to handle their tax requirements. However, all who did pay for outside help indicated that the cost was substantial, which is prohibitive for small business owners that do not have the income to support paying for administrative help.

> *"Having someone do accounting work for you is a big cost. If you can do it all yourself, you can save a lot of money, but it's not easy to do it all yourself." (Food and Beverage 2)*

> *"My margins are thin, and the added cost of a part-time bookkeeper to keep track of local taxes greatly reduces my profitability." (Retail Store 16)*

> *"Administrative costs are my biggest [non-COGS] expenditure. Between dealing with insurance companies and with paying my CPA to prepare my quarterly taxes, compliance costs are about to run me out of business." (Service Provider 3)*

Some businesses did not hire an accountant or a bookkeeper at first, but when their sales started to increase, they realized that the administrative burden of sales tax filing was too much for them to handle.

> *"Being successful with the business, it got scary, I don't know if I'm doing this right" (Retail Store 14)*

> *"When you first start you want to do everything by the book and then you're hit by something you don't even know, they have the right to take your license and destroy your business. You're afraid of doing something wrong because you don't know." (Gen Merch Store 8)*

> *"At the beginning, my CPA had difficulty figuring out where I should be paying taxes. I have a complex corporate structure, but dealing with making estimated quarterly payments is a pain that I wish I could reduce." (Online retailer 2)*

> *"I had to hire an American accountant to manage all of the U.S. taxes. I was making it work until I hit a trade threshold which added additional requirements. I worked a deal*

with my chartered accountant, so she only takes a flat percentage of each [product] sold, making [compliance something that] I can afford." (Online retailer 3)

"My CPA recommended that I do [the tax filing] myself as he was going to charge about as much as I needed to pay in taxes to do it for me." (Service Provider 2)

"I would guess that I've paid about 2 or 3 percent [in local taxes] on all the properties I have built over my time – that's quite a few hundred thousand bucks. I don't even want to think about all the overhead costs I've spent on CPAs to figure out who I owe, and how much I owe." (Retailer 17)

Interaction with Regulators

In discussing interaction with regulators with the small business owners, the interviewees' immediate response was to think of audit experiences. With only five percent of the small businesses included in the study having been audited for tax purposes, most businesses had little to no interaction with regulators. Of the audited businesses, all had been operating for more than five years and filed their sales tax monthly. However, as sales tax in Colorado was a major revenue source for the state, cities, and counties, small business owners clearly saw pressure for their entities to comply with relevant sales tax laws.

"When you screw up from not knowing you are flagged in that system forever. They're gonna keep an eye on you They're gonna come after you again." (Gen Merch Store 8)

"Regulators are pretty vigilant during events. They go around and make sure everybody is collecting and charging sales tax." (Retail Store 6)
"We should probably go back and look at all the things that we purchased over the year, our little amount that we purchase, isn't going to make or break the City, it does not. We probably paid $500 a year overall of sales tax, that $500 is the difference of us making it to the black and not making it." (Non-Profit 1)

However, interaction with regulators should be viewed are more than just an audit experience. The regulators who were interviewed indicated that the various municipalities offered multiple areas of education and support for small business owners. When further pressed regarding interaction with regulators, many of the small business owners indicated that they did not receive support, they were not aware of the services, or they chose not to utilize the services provided.

"I vaguely remember seeing ads for 'Contact these people if you want support' but no one in the government took the time to reach out to me." (Online Retailer 1)

"They were not any help. They literally did not reach out or do anything to help figure out how to file sales tax. I had to figure it out myself". (Retail Store 8)

"I know that exists but it, to me, has the stigma of the DMV. Like, I don't want to go down there and wait an hour to ask a couple of questions and they might belittle me or talk down to me, so I would rather ask someone I know or find information on the internet". (Food and Beverage 2)

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"Calling the state, it seems like you are imposing on them. No, that's what they are there for." (Gen Merchandise Store 9)

"There's a lot of pressure to be a certain way when talking to official people of the government, it's nerve racking". (Retail Store 8)

"They make it purposely hard, and they shouldn't because they work for us". (Non-Profit 1)

However, two of the interviewees did not negatively view their interaction with the regulators. They had not been audited and had reached out to their local government officials for help and guidance.

"There were times that I needed to call them and they were there and they helped me". (Retail Store 15)

"Some are really nice people, helpful people, some really not helpful. You can find that everywhere". (Gen Merchandise Store 6)

It is apparent from these responses that there is a disconnect between what the local municipalities offer for small-business support and how the small business owners view this interaction with the regulators. Open communication without fear of retribution would create a substantial improvement in the regulator to small-business-owner relationship.

Cash Businesses

For businesses with Point of Sale systems, credit-card processing and CPAs or bookkeeping software, sales tax compliance, as discussed above, has shown to be costly, but less burdensome in regards to time. However, the businesses interviewed that deal mainly in cash seldom have sophisticated accounting software, so creatively manage their sales tax burdens. According to Colorado's Sales and Use Tax General Information and Reference Guide, "the law requires that you list sales tax separately from the purchase price of the items you sell on all invoices, billing and business records" (Department of Revenue, 2017, p. 2). However, this may not be the case for most small cash businesses in the study that will usually offer one cash price, sales tax included.

"I do my price, I do a percent for tax and do another for profit. Usually people think better when they don't pay tax." (Gen Merch Store 6)

Cash businesses from the study included small businesses with seasonal stands or vendors in a bazaar. Most of their sales have cash payments, which commonly involve a flat rate for their sales instead of the purchase price and sales tax together. Many of the cash businesses stated that they would "cover" the sales tax charge if customers paid in cash. If a customer paid with a credit card, sales tax was then charged as it is reflected in the credit card processing system..

One cash business owner admitted that they did not report the actual amount of cash received, *"I report an estimate of cash; some of it gets lost or stolen" (Food and Beverage 6).* This business owner reported that he had been operating for more than a decade, and with various

locations. He said, due to the logistics, they cannot keep track of all cash receipts. Thus, they use estimates based on past years to file for sales tax.

Brick and mortar businesses' transactions are more visible because most brick and mortars receive payments through credit cards, which are directly recorded by POS systems. Unlike cash transactions, credit card payments can be easily verified if needed.

> *"Everybody runs their business a different way, so some people are more about giving the service than being a salesperson and selling products." (Gen Merchandise Store 3)*

> *"To tell you the truth, most times I just pay the taxes, and I don't have to but it is such a hassle not to". (Non-Profit 1)*

Conclusions and Recommendations

Although this study only includes interviewee data from 49 small business owners and managers within a single metropolitan geographical area, it was apparent that better communication, better record keeping and a more convenient sales tax remittance system would greatly improve the relationship between small business owners and regulatory agencies. Additionally, the potential for more accurate sales-tax remittance would also be appreciated. The purpose of this study was twofold: to determine 1) how Colorado small businesses successfully manage the burden of the collection and payment of sales and use taxes, and 2) what role governmental agencies play in assisting small businesses with the collection and payment of sales and use taxes. The findings and recommendations are summarized below.

Conclusions and Recommendations for Small Businesses

To ease the burden of sales tax compliance for the Colorado small business owner, the answer found within these interviews is, unfortunately, costly. The small business owners interviewed that had been profitable for longer than five years overwhelmingly used the help of an accountant or a bookkeeper to manage their sale and use tax burden. This cost is burdensome to many and potentially prohibitive for those looking to start a small business.

While the primary desire of small business owners is to successfully manage their own operations, this cannot be accomplished without acknowledging and understanding the regulatory piece of the business. Home rule cities in Colorado rely heavily upon sales tax collection in order to maintain the operations of the city. Additionally, a significant portion of the state government is also funded through sales tax collection. While taxation is seldom, if ever, a positive topic of conversation, without the support of state and local governments, many small business owners would be unable to be successful. This study has shown that open communication with local governments and proper recording keeping can be beneficial, not only in helping small business stay in compliance, but also to help the locality in which the small business is located.

Although many of the small business owners interviewed indicated that trying to deal with the government can be daunting, concerned and engaged small businesses would be better served if they attempted to openly communicate any questions or concerns to their local government. This study revealed that many of the home-rule municipalities have auditors or

small business advocates services that are in place to help business owners that have questions or concerns about regulatory compliance. The local city governments have a vested interest in collecting the appropriate sales tax from its business owners. They have available personnel and services who are trained and willing to help answer questions, hear concerns, and help reduce management anxiety. In addition to creating open communication with the local government, small business owners should also place more importance on proper record keeping for tax collections. Manual data collection systems, such as a log book, maintaining an Excel spread sheet, or keeping a Word document are a cost effective way to keep track of business transactions. For a marginal cost, a point of sale system or accounting software can also help a small business owner maintain proper records. A professional bookkeeper or accountant is also available for those business owners who need this level of expertise. Whatever the method, proper records can be the difference between an easy audit and a difficult one. Many of businesses interviewed stated that once they had a good accounting system in place to record sales tax, the system was easy to follow. Taking the time to implement and maintain a proper and thorough record-keeping system will save time in the future as calculating and remitting the proper sales tax will be easy to ascertain.

Recommendations and Conclusions for Regulators

Regulatory agencies understand the importance of sales tax on their revenue, so have attempted to ease the burden by offering electronic filing for small businesses, yet some businesses still find sales tax filing, especially online, difficult. Although regulatory bodies provide free trainings for small businesses to understand sales and use tax filing and remittance, business owners tend to shy away from these trainings simply because of the notion that an interaction between an ordinary individual and a government representative is not comfortable.

While many small business owners may not view the local or state government favorably, these government agencies offer many services and tools for small business owners. As stated above, the revenue from sales tax collection is vital for government solvency. This study has shown that many of the owners interviewed stated that they had little or no contact with any of their taxing governments, even though some described the remittance of sales tax as burdensome. As regulators are aware that few business owners willingly interact with them, this study has shown that local and state governments could engage in more community outreach as well as create a more user-friendly tax remittance system.

Local and state governments could attempt to find better forms of small business community outreach as it may be valuable to help encourage compliance as well as boost their reputation with the small business community. While classes are regularly offered, attendance is low as the small business owners must research to find the information. Regulators could reach out to small business owners, either through personal visits to their places of business, mailers or phone calls, informing them of the classes offered, many at no cost. Regulators could also schedule "non-audit" visits where the sole purpose is to help business owners with sales tax questions and offering to help them become compliant with no penalty if deficiencies are found. If regulators wanted small business owners to fear the government less, providing help without fines and penalties would more rapidly help achieve this.

The emergence of the nonprofit Colorado Municipal League is also a positive move for the small business owner. As this nonprofit is working to standardize definitions for taxable

items, and many cities and towns are adopting these definitions, the determination of what is taxable and what is not will help ease the complexities of compliance for those businesses that operate in multiple jurisdictions.

Regulators at both the local and state level would also be better served by following through on the goals set by the Colorado Sales and Use Tax Simplification force and creating a user-friendly site where all of Colorado's sales-tax remittance, both local and state, could be remitted. The purpose of the task force is to specifically help ease the burden placed upon small business owners to stay in compliance with their tax requirements. Unfortunately, the legal environment in Colorado, between home rule cities and sales tax limitations due to the Gallagher amendment, are making the work difficult and laborious. The addition of the *Wayfair* ruling further complicates sales tax collections. While the task force is attempting to work within the inherent restraints of Colorado's legal system, the task of successful compliance will continue to be placed upon the small business owner.

Limitations of the Study and Ideas for Further Work

The main limitation of the research is that data was obtained from 50 interviews with small and micro-sized entities in a single U.S. State. Additionally, very few online retailers were interviewed, allowing limited, if any, discussion on the impact of the *Wayfair* ruling. This does not detract from the objectives of the paper, which were to better understand the burdens that sales and use taxes place on small businesses, what successful small business owners do to navigate their compliance burdens, and the role that regulatory agencies play in helping the small business owner navigate the sales and use tax process. Nevertheless, it is desirable to follow up this research with more extensive interview data obtained from small business owners and online retailers across

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A Conceptual Model of Financial Beliefs Toward Money in Mexico and a Qualitative Analysis of the Model

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ABSTRACT

While there is beliefs and attitudes research towards money in developed countries, research in developing countries is limited. This is an exploratory study that develops a conceptual model based on the theory of the psychology of money in Mexico. The model includes four variables: family, social, personal, and religious beliefs that influence attitudes toward money. The second part of the paper is a qualitative analysis of the model with a sample of students.

INTRODUCTION

Economic behaviors including expenditure, purchase, saving and investment, among others, all constitute an important part of social behaviors that people perform in everyday life (Lozano & Fuentes, 2007). But a high percentage of Mexican citizens live in poverty and lack possibilities and abilities to lead a higher standard of living (Banamex, 2008).

The absence of financial education can be, to a large extent, one of the biggest problems facing the population of Mexico. This reality affects seven of every ten Mexicans (70 %), "since financial culture is not ours, we spend more than what we have and then we do not know how to face the debts "(Romo, 2015 quoted by Chávez, 2018). Spending more than we earn, is also due to a large extent because people do not record their expenses. This reality affects more than 63.4% of the population in Mexico, thus preventing cash outflow planning, according to the National Survey of Financial Inclusion (CNVB, 2015).

In the survey of financial literacy of young people in Mexico, it was found that 20% find greater satisfaction in spending money today than to save it for the future and 18% said they feel the impulse to buy some products, although they do not need them. Likewise, 54% of young people make purchases that come out of their budget, and to remedy this situation, they resort to their savings , which can interfere in achieving an adequate control of their finances (Banamex, 2014).

Young people distinguish necessary and unnecessary expenses as follows. The first include transportation, children's school and school supplies, mobile telephone, rent, food, services (electricity and water). Unnecessary expenses include fun and leisure (going to restaurants, cinemas, centers nightlife, casinos, parties) and things that they like, but that "are not indispensable", such as clothes, shoes, electronic devices (smartphones, tablets, televisions) or going to the gym (Banamex, 2014).

Of the young Mexicans, 30% do not show an interest in financial culture. They prefer to spend rather than save, according to the National Commission for the Protection and Defense of Users of Financial Services (Economista, 2017).

Although, there are studies related to financial education and its relation to financial decisions that are made, and others related to personality traits and the level of income or generation of wealth based on a preliminary theory of actions versus money, which are a classification of beliefs . However, no studies have been found that discuss in depth the relationship between beliefs about money and financial decision making (González, 2016).

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People interact with each other through money in order to be able to obtain and cover all their personal and social needs. This perspective of analysis covers its mediating role in the behavior of individuals. Over the years, this mediating role of money has led to the reconversion of its relationship with individuals. This new relationship is based more on the search for money as an end in itself. The study of the psychology of money, as well as that of other topics related to everyday behaviors, has not received much attention in scientific research. Studies on money come from philosophy as well as from psychoanalysis or even religion. This fact is due to its link with clinical or pathological issues and its qualified character as materialist (Luna & Li-Ping, 1998).

If you do not talk, research and understand the emotional part associated with financial beliefs, financial learning will not be significant in the individual. As much as people learn technical tools, financially speaking, if there is a cognitive block on economic progress, the result will be the same (González, 2016). So, the objective of this research seeks to identify which beliefs affect the relationship with money that affects their financial decisions.

THEORETICAL FRAMEWORK

Our research is mainly based on understanding how beliefs lead us to attitudes and the latter to behaviors. The classic definition of beliefs proposed by Moscovici (1979), indicates that these are social representations, explanations, concepts or statements socially shared by a cultural group. Antonak and Livneth, (1988), affirm that attitudes are learned manifestations of behavior, through experience and interaction with others. While behavior is the reaction generated by the subject in different situations (Consuegra, 2010).

Belief ⟶ Attitude ⟶ Behavior

For Denegri (1998) the individual must generate certain skills, behaviors and concrete habits aimed at the proper use of their resources and attitudes towards indebtedness and the use of money that facilitate efficient economic behavior and improve their standard of living. Money is significant for various reasons: Money allows people to buy and therefore cover their vital needs, their possessions are related to the quality of life and belonging to groups acting as a social symbol, currently, possessions. Money is associated with feelings of satisfaction and personal happiness.

The literature reviewed to develop the model mainly focuses on analyzing attitudes towards money.

The first scale is called the Money Beliefs and Behavior Scale (MBBS) developed by Furnham (1984). The MBBS evaluates six factors:

- power / expenses
- obsession
- retention
- security / conservative
- desire for more money
- effort / skill

The results support that men tend to worry more about money than women , the latter are considered more conservative in terms of money management, also the aforementioned subjects are concerned that to obtain money takes a lot of effort, or that you have the ability to generate it. In contrast to the young population, who tend to spend more money and see it as a means of power.

The next scale analyzed is that of Money Ethic Scales (MES) by Tang and Whiteside (1997). The authors mainly consider the following factors:

- age
- gender
- social
- ethical
- political work
- religious values.

The MSE analyzes the relationship of these factors with the categories of success, budget, bad money, equity and motivational. The results obtained show that people experience a low level of salary satisfaction, which leads people to associate money with success at work. Most people work for their money and want to have more money . When people earn more money, they immediately change their standards and want even more money (Lawler, 1981). In sum, those who get a high MES score tend to value money significantly and want to have more money.

On the other hand, Yamauchi and Templer (1982) developed the Money Attitude Scale (MAS) scale, affirm that gender does not affect the attitude towards money. In the developed scale they analyzed the categories:

- power
- prestige
- retention
- distrust
- quality
- anxiety

The study included a sample of 300 profession occupation adults. Result support that most people perceived money as a symbol of success, in turn, that money is a source of anxiety.

Along the same lines, the scale of attitudes towards money (EAD) developed by Luna, Quintanilla and Díaz (1995) is divided into two categories:

- personal attitude towards money
- social attitude towards money

They focus on fragmenting the individual from the social, because they consider that money in today's society is something symbolic that influences consumer behavior. The scale was applied to 102 university professors, 52.5% were women and 47.5% men.

The MBBS scale had an update regarding the factors analyzed and was developed by Lay and Furnham (2018). The factors are as follows:

- achievement
- power and status
- savings
- conscious
- responsible concerns and financial literacy

The first achievement category is that getting a lot of money represents a measure of success and self-esteem for some people. The second category of power and status, refers to the attitude of people to show others their status or purchasing power, likewise , represents a struggle to obtain money. The third category savings concern, defines the anxiety, stress and concerns

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that can be generated with respect to saving, taking into account that for some people they fear that their savings are not enough to meet their needs or that money saved cannot recover it. In contrast to the above, the fourth category of being aware and responsible reflects the concern to save and invest as a means of protection for a future, in turn, people are responsible because they avoid getting debts or wasting their money on things that are not useful. The last category of literacy suggests that people with a low level of financial education may feel ignorant and humiliated by others who understand the financial context.

Prior Quantitative Analysis Results

González (2016) conducted a qualitative study to identify the relationship between women's financial beliefs and their self-realization development, found that security, power and satisfaction are elements of personal financial beliefs. Social respect, progress, conformation of the person are social financial beliefs . Also, family financial beliefs analyze the roles imposed by society. Finally, religious-based beliefs derive from a relationship with a superior being.

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Table 1. Studies of scales of attitudes and beliefs of money

	Money Beliefs and Behavior Scale (MBBS)	**Money Ethic Scale (MES)**	**Money Attitude Scale (MAS)**	**Money Attitudes Scale (EAD)**	**Financial beliefs**
Author	**Furnham (1984)**	**Tang and Whiteside (1997)**	**Yamauchi and Templer (1982)**	**Luna, Quintanilla and Diaz (1995)**	**(González, 2016)**
Category	Achievement	Success		Personal Attitude Towards Money	Personal Financial Beliefs
	Power and Status		Power/prestige	Social Attitude Towards Money	Social Financial Beliefs
	Savings concerns		Retention		
	Conscious responsible	Budget			
	Financial Literacy				
		Money-Bad			
		Equity			
		Motivational			
			Distrust		
			Quality		
			Anxiety		
					Family Financial Beliefs

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					Religious Financial Beliefs

We understand that the usefulness of money is a medium of exchange. As an instrument for exchanging, goods and services are given for money. Therefore, individuals have their own closeness to money, which can be developed within their early years of life from everyday experiences such as shopping with relatives or listen to conversations that parents and other adults have about "the economic" (Furth, 1980, Denegri, 1995).

Corley (2016) defined the term "victim ideology", since people who complain instead of taking action on their financial situation refer to thinking that poverty is beyond their control and that luck is in the hands of external factors. Corley concludes that what makes the rich has to do with the way they do things, has to do with the internal part of the person and not with external factors—the internal vs. external locus of control.

Based on the literature, the proposed model begins with belief variables includes family, social, personal and religious that influence what we think and learn that influence behavior and attitudes towards money, presented in Fig. 1. The first part of the model simply lists the four variables, whereas the second part list the subscales of each of the four variables.

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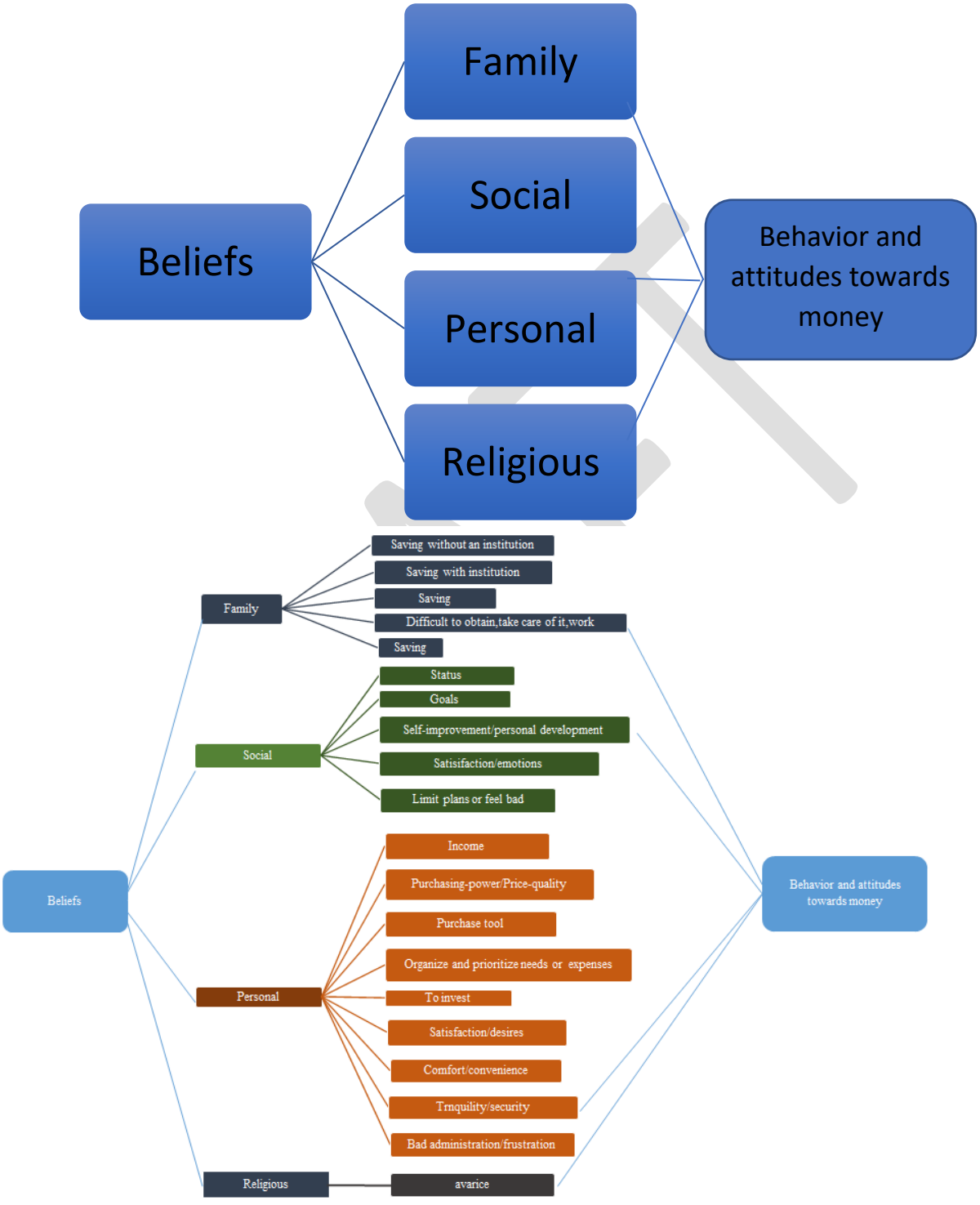
Fig. 1 Conceptual Model of Beliefs That Influence Attitudes Toward Money



METHODS

This study used the multiple case method (Yin, 1994), using 20 cases with four units of analysis, included the deductive method using previous studies of scales of attitude towards money and inductive based on the information provided by the students. In this study, the four multiple units analyzed were: family, personal, social and religious beliefs, that is, how these beliefs affect students' financial behavior or behavior.

The selection of participants was made by deliberate and intentional selection of male and female students in the Engineering Division of the Irapuato-Salamanca Campus (DICIS) who agreed to participate in the study, resulting in 20 participants. For the data collection process, a structured questionnaire was used. Student responses include answers that may fall into more than one identified category. Data obtained through the questionnaire were recorded in a database for content analysis of the 20 participants to identify the most frequent answers, with percentages of the student responses.

To guarantee the quality and objectivity of the research, three validity tests suggested by Ying (1994) were used, namely construct validity, external validity and reliability. In the case of the validity of the construct, multiple data sources (triangulation) were used, establishing the chain of evidence and reviewing the preliminary report on case studies by key participant. Regarding external validity, the study establishes the domain in which the results of the study can be generalized, and sets the agenda for significant findings to be applied to other students of other universities.

RESULTS

As shown below in tables 2-5, a description of the frequencies of each of the four categories identified in the responses of the 20 students is reported. The case column represents the number of students that respond to the same category. The comments are the transcription of two or three most representative students of the category.

Family Financial Beliefs

Family beliefs are that the individual adopts the attitudes that parents or grandparents have regarding money. Most respondents follow family patterns when saving and investing, how they manage it and their habits. Many of these habits can be limiting for personal development and on the other hand we have those that help to potentiate your financial habits.

Table 2. Family Beliefs

Case frequency / percentage	Category	Comments
6 / 30%	Savings without an institution	Family savings account, it is a family custom with which I grew up as a child. My mother, she always saved money in boa

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12 / 60%	Savings with institution	I only use the bank since I have a card. The savings account because every time I can or together I put it there and it makes me a good way of saving, practical and simple.
3 / 15%	Sayings	Money does not buy happiness. Money separates families. The money that easy arrives, easy leaves. Money is never enough. Money attracts problems. The poor are getting poorer. If you don't have money you can't have what you want. If you get to have a lot of money you will be a superb person. You have to work very hard to have money and earn a living.
10 / 50%	Difficult to obtain / take care of it / work	That you value it since it is difficult to obtain it. To take care of the money because it was difficult to get it.
5 / 25%	Saving	Saving as a child, it was something that my paternal grandmother instilled in me , but according to the years and due to resources I have thought more about saving than spending. What we have to save is not known when it may be needed.

Social Financial Beliefs:

Social beliefs are what allow to structure the group and define it to create identity. Where power, social respect and conformation as a person are sought.

The answers mentioned by the students emphasize the importance of having money to meet goals and projects, which will serve for their personal development, in turn will improve their quality of life and may have a higher level of status in society, this status is mentioned which affects feelings or emotions which can become negative if they do not meet the objective.

Table 3. Social Beliefs

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Case Frequency / percentage	Category	Comments
8 / 40%	Status	Having a family and traveling, money would be the pass for a decent life. At the moment I study, but I am financially stable.
8 / 40%	Goals	To meet some future goals I would like to have an economic stability so as not to have financial fear. Set goals and when I meet them, set more goals.
10 / 50%	Self-improvement/ personal development	I would like to raise money to open an association. Save and invest in some microenterprise.
10 / 50%	Satisfaction/emotions	Performance satisfaction. An important satisfaction is for me to learn how to move money and not that money moves me
6 / 30%	Limit plans or feel bad	You have stopped an important personal project. It prevents me from making family trips more often.

Personal Financial Beliefs

Personal beliefs are related to the use of money as a means to obtain external things or internal moods, tranquility, security, power, satisfaction. Determining who I am or representing who I am as a person.

Among the personal beliefs answered by the students, money predominates as a tool to be able to have a better purchasing power and that this only serves to meet needs and expenses, thus generating them to feel safe and calm in daily life.

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Table 4. Personal Beliefs

Case frequency / percentage	Category	Comments
8 / 40%	Income	Economy support. Food support, education. Income granted for a job. Livelihood or income to survive. Money gives sustainable comfort.
7 / 35%	Purchasing-Power/ price-quaiity	Serves to achieve a better quality of life. I rely on a value for money or necessity, if I take something urgently, I don't think about money so much, but if it is something I can expect I see if it is worth it or it can be obtained at a better price.
6 / 30%	Purchase tool	It is a means by which we can buy what we want, it is something very important because our life revolves around it. Represents a means to get all kinds of things.
10 / 50%	Organize and prioritize needs/ expenses	When I am going to make a decision based on money, what I think is mainly how necessary that thing is and how much I want that thing. I try to distribute the money in the priority expenses and in savings and in other small savings for contingencies. - I wonder if I need it (yes or no). It helps me (yes or no) and what is the benefit.
6 / 30%	To invest	What am I going to invest in? I think what benefits this decision will have, after verifying the pros and cons of making the decision. I do it mainly in aspect: How much money will it cost me ?, In what time will I see benefit ?, Is this decision safe ?, How much does it risk?
11 / 55%	Satisfaction / desires	That is a means by which we can buy what we want, as something very important because our life revolves around it.

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		Spend, because on many occasions I get carried away by something cheap that I will not use. It is a good, with which we can meet our needs.
11 / 55%	Comfort/ convenience	Sometimes I feel that it is little, since the value of some product is higher than the other, at other times it is enough for what I need. I live with comfort, I get peace of mind, they make me feel safe.
10 / 50%	Tranquility/ security	It is to have peace of mind for the opportunity to have economic stability When I have money I feel calm, but when I do an investment activity that gives me money I feel happy or happy.
5 / 25%	Bad administration/frustration	When there are health problems or debts and I have not had the financial resources to solve them, I think it has raised concerns. I feel that, sometimes, perhaps very often I spend on unnecessary things, I buy things that I don't need just for trend or taste. And sometimes I feel bad about it.

Religious Financial Beliefs

Religious beliefs are those that are imposed by an authority and that are based on some divinity that derives a very specific relationship and behavior . Of the students surveyed we can describe two patterns related to their religious beliefs based on money, emphasizing that having money belongs to greedy people and is a bad thing. Therefore, we have that students in this category are more managed in terms of spending their income and do not restrict unnecessary expenses, without being planned. Only two students have religious beliefs.

Table 5. Religious Beliefs.

Case frequency / percentage	Category	Comments
2 / 10%	Avarice	God is an old man with a beard watching everything. God is going to punish you. Religion makes you a good person. Believing in the church is special and unique.

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Limitations of the Models

It should be noted that the MBBS, MES, MAS, EAD and this study are based on analyzing attitudes towards money through a questionnaire. Thus, the origin of these attitudes is unknown. That is, the questionnaires reflect statements already established where the subjects' answers are based on their perceptions. What the statement says is something already imposed. Therefore, it is unknown how that attitude arose or how it has impacted different areas of a person's life. Similarly, all scales study sociodemographic factors and the population examined are higher level students, as well as professors and women immersed in working lives. See Table 1 and Figure 1 for a review of the financial measurement instrument variables.

CONCLUSIONS AND DISCUSSION

This research is exploratory. According to the literature research and qualitative analysis, a model of four beliefs that influence the attitude towards money is proposed: family , social, personal, and religious. It was found that the belief that most influenced students in the attitude towards money was that of a family type, with less religious relevance.

However, this research was a qualitative analysis applied to a small group of students, therefore the results cannot be generalized globally. Is there a discrepancy in the variables in the model between developed countries and in developing countries? Only further research can answer this question.

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Character Based Lending: A New Methodology

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Abstract

Most financial institutions use a potential borrower's credit score as a proxy for the borrower's character. For many potential borrowers, a credit score may not be an accurate measure of character and has little to do with whether a borrower will repay a loan. This is particularly true in the case of underserved borrowers (e,g., businesses owned by minorities, women, low income individuals, veterans, millennials, etc.) whose circumstances and lack of financial education may have an outsize influence on credit score. As such, this emphasis on credit score excludes many worthy borrowers from having access to the capital they need to start or grow a business. Colorado Lending Source, an economic development organization in Colorado, developed a successful "character-based" loan program they use to provide startup and growth funding to borrowers that would not be able to obtain affordable capital elsewhere.

Keywords: lending, character, credit, underserved borrower, small business

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Exploring Managerial and Social Media Practices in Family Businesses: Effects on the Triple Bottom Line

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Abstract

This study examines the concept of high performing organizations as a business approach for family businesses to implement in achieving superior performance. The paper is exploratory study of the managerial practices as suggested by high performance organization model resulting in higher financial and non-financial performance of family business compared to non-family ones. Recently, there has been a call for more research in the area of phenomenal theory, which is to consider the practitioners views in conducting research (Ployhart & Bartunek, 2019). Following this logic in terms of exceptional business practices was the early articulation for the notion of "high performance organization" (HPO) presented by Lawrence and Lorsch (1967). In their 1982 book "In Search of Excellence" Peters and Waterman popularized many of the basics concepts of a HPO. More recently, Collins and Porras (1994) and Collins (2001) further entrenched the idea of the greatness and high performing in business lexicon. While the idea of high performing organizations of business entities is an appealing concept until recently the notion has remained simply that—an ideal that a business might work toward.

However, if the concept is to inform management research and management practice the dimensions of the concept need to be determined, validated, or tested with respect to contingencies and boundary conditions. Recently Waal (2008; 2011; & 2012), Waal, Orij, Rosman, & Zevenbergen (2014) and Waal, Goedegebuure, & Hinfelaar (2015) have articulated the theoretical dimensions of HPOs, developed a measurement to empirically determine HPOs, and empirically tested the scale in organizational setting. While this stream of research is intriguing and potentially valuable to the field, it is very early in its development and more studies using this approach to determine dimension reliability across firms and cultures.

Therefore, the purpose of this paper is an exploratory study of the managerial practices as suggested by high performance organization model on both financial and non-financial performance of family businesses. In addition, the study explores if there are any differences of managerial practices based on country. We propose that a predictable set of differences exist among the managerial practices when it comes to explaining different performances of family and non-family businesses.

Family business, managerial practices, and triple bottom line

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Growing pains: Success strategies for rural entrepreneurs to grow beyond their limited local markets

David Snow

Abstract

Rural entrepreneurship is a topic needing further study. Business owners in rural areas must navigate limited local markets and deal with the outward migration of their regional populations, which further shrinks the pool of potential customers. This research serves to assist rural businesses by studying the behaviors of successful rural entrepreneurs in scaling their businesses beyond the capacities of their local markets. This qualitative study will move beyond the theoretical in order to provide practical solutions for other rural entrepreneurs to grow their businesses to the national or global level.

Keywords

Rural entrepreneurship, strategy, small business, e-commerce, applied research

Introduction

"Buy Local" is a phrase often used today in an effort to support rural entrepreneurship. The emphasis is to bolster independently-owned businesses and keep the money in the community (Seimens, 2010). Studies show supporting entrepreneurship serves to strengthen the economic base of the community and contribute to economic development, even in rural areas (Mojica, Gebremedhim, & Schaeffer, 2010). But, what happens when a town does not have the market size necessary for an independent, locally owned business to thrive? They must either close, relocate or develop strategies to attract customers from other areas. The focus of this study is those owners whose businesses cannot possibly sustain themselves within their home locations, but devised methods to cultivate customers across the nation and grow their businesses, despite the constraints of the local markets.

Literature Review

Rural

Rural entrepreneurship has not been extensively studied (Pato & Teixeira, 2016). Since Wortman (1990) raised the issue, there is still not a consensus in defining rural entrepreneurship. Pato & Teixeira, (2018) conducted a study of the rural entrepreneurship literature and found broad debate concerning what constitutes 'rural' and that the majority of rural entrepreneurship studies are conducted by researchers in the UK and Spain. Among US government entities, there are fifteen definitions for rural. The nuances in these variations determine eligibility for a myriad of government programs (Johnston, 2017; USDA, 2019).

The Census Bureau defines what is urban and therefore, the default definition for rural is what is not urban (Census Bureau, 2019). Specifically, a population of 50,000 or more is labeled an urbanized area and 2,500 to less than 50,000 people is labeled an urban cluster. Anything under 2,500 is considered rural. Commonly, it is thought rural is distanced from a large city, and communities with only a few thousand people are colloquially referred to as small towns and are considered rural (Hunt, Bryant, & Taylor, 2016). In rural entrepreneurship research, the conditions of the environment are what define whether or not an area is rural.

These include depopulation, less economic activity, and lower levels of human, cultural and financial capital (Korsgaard, Muller, & Hanne, 2015). For the purposes of this study, adherence to this definition seems most appropriate.

Markets

Adequate market size is critical for a business to start, sustain and grow. This is true regardless of the location of the firm, whether it is established in an urbanized area, urban cluster, or rural area. To determine the potential market size for a particular product or service, it is recommended factors such as population, GDP per capita, urbanization, and income distribution are assessed (Alon, 2006). Not only are these elements important to establish the necessary customer base, but additional considerations such as: the existence of local markets, entrepreneur networks, suppliers, early customers and multinational corporations are critical elements of the market domain when deciding where to locate a business (Isenberg, 2010; Spigel, 2017). Often, rural areas are characterized as sparsely populated, having lower income and education levels, lacking the numbers of people and companies to establish large entrepreneurial networks, a sufficient group of early adopters, or multinational corporations to act as suppliers, customers, or strategic alliances for new ventures. Because of these factors, it is not uncommon for areas fitting this description to be less attractive for companies to locate or expand (Reid, 1987; Shields, 2005). Another issue facing small town businesses is by the very nature of their locations, they have fewer customers who shop less often and spend less per visit (Kim & Stoel, 2010). This is compounded today by the ease of customers to make their purchases from national retailers and other firms online (Frazier, Stoel, Niehm, & Eckerson, 2013).

Skills

The use of e-commerce has greatly increased as the use of mobile devices has done the same (Consoli, 2017). Small businesses have not adopted e-commerce or had success with it at the same rate as large companies. Business owners of higher ages or lower levels of education, especially in less developed areas are less likely to adopt e-commerce (Awa, Baridam, & Nwibere, 2015). It is well established nonmetropolitan areas (i.e. rural) have smaller populations and therefore, fewer highly educated, highly skilled individuals available for the workforce and therefore frequently lack the knowledge to use the internet for business (Stoel, Jeong, & Ernst, 2010). And, the phenomenon of "brain drain" contributes to these types of workers leaving the rural areas to seek opportunities elsewhere (Stephens, Partridge & Faggian, 2013).

E-Commerce

E-commerce is buying, selling, or transmitting data of goods and services over an electronic network (Islam & Eva, 2018) and is showing significant year-over-year growth (Sperdea, Enescu, & Enescu, 2011). Online sales in the US for 2018 were $517.36 billion, up 15% from 2017 (Ali, 2019). By 2021, it will be the largest retail channel in the world with sales of $4.4 trillion (Grant, 2018; Prininsky, 2018). E-commerce is seen as a rapid growth strategy for small and medium sized businesses (Solaymani, Sohaili, & Yazdinejad, 2012). E-commerce may help small businesses reduce market entry costs, lower distribution channel costs, and interact with a greater number of customers (Ezzi, 2016). It has been touted as a key strategy for success for small, independent retailers in rural communities (Stoel et al., 2010). However, research has shown many factors are involved to influence the efficacy of an e-

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commerce initiative, central of these is the attention given to the consumers' experience (Ouyang, Zeng, Geng, & Yang, 2017). The goal is to develop repeat customers by maximizing customer satisfaction and trust (Eid, 2011).

Strategy

Nadim and Lussier (2010) prescribe engaging in local community relations as a successful strategy for small businesses to achieve long-term success. Not to suggest this is incorrect, but what if it is not enough? Often, certain types of businesses cannot thrive in smaller communities because not enough customers reside in the area. Sometimes businesses are never opened in rural or small communities because of insufficient population density constituting a lack of critical mass of local consumers, suppliers, and strategic alliances (Snow & Prater, 2017). However, with today's technology and the rise of globalization, it is possible to access customers and suppliers from anywhere (Lal & Singh, 2017). Using social media as a strategy to increase awareness for the business and promote traffic to storefronts and websites is very common today among small businesses (Taneja & Toombs, 2014). Unfortunately, the majority of small businesses are ineffective in utilizing this technology (Bakeman & Hanson, 2012; Taneja & Toombs, 2014).

Research Questions

Since the goal of this study is to discover the methods used by rural businesses to achieve sales significantly greater than what their local communities can generate, the main research questions are: How do rural entrepreneurs grow their businesses beyond the capacity of their local markets? What specific practices do they employ to scale their businesses to the national or global level?

Methodology

This is a qualitative research study using purposeful sampling. The strengths of qualitative research derive primarily from its inductive approach, its focus on specific situations or people, and its emphasis on words rather than numbers (Maxwell, 2013). By interviewing the small business owners, a rich description of methods, techniques, experiences, and perspectives for developing and executing their strategies can be obtained (Braun & Clarke, 2006). Purposeful sampling is based on selecting samples that can provide an in-depth study of particular research questions (Patton, 2001).

Five business founders were chosen for starting and growing their businesses to successful ventures in a very short period of time. Interviews were conducted with the business owners. These founders have scaled their respective companies far beyond the available markets in their home regions. All generate revenue in excess of $1 million annually and were able to do this within two years of starting operations. The businesses are located in the mid-western United States and the southeastern United States. These businesses employ between three and twenty people and are located in towns with populations between 7,000 and 21,000. All businesses are in niche markets, which further reduces the potential number of local sales. Content analysis was used and data was collected via a semi-structured interview process. Flexibility to stray from the list of questions as needed was expected. The interviews were audio recorded. Notes were taken from the interviews.

This paper contributes to rural entrepreneurship research because it provides practical, factual examples of rural entrepreneurs and their methods of acquiring customers beyond the

capacity of their local markets and flourishing despite the constraints of their respective brick and mortar locations.

Results & Discussion

The Results section will provide details of the answers to the questions asked during the interviews. *What percentage of your customers is from outside the local market?* All five businesses reported 90% to 100% of customers are from outside their local markets. *What percentage of your revenue is from outside the local market?* All five businesses reported 90% to 100% of revenues are from outside their local markets. *What is the size of the local market?* The size of the local markets range from $300,000 to $2 million. *What is the size of the national market?* The size of national markets range from $100 million to $50 billion. *Do you sell your products nationally and/or globally?* All five companies sell at least on a national scale. One of the five sells on a global scale. Two of the firms do not sell globally because they are restricted due to regulations governing their industries. The company selling globally has approximately 50% in global sales. The other two businesses are not yet at a stage to consider global sales and may not aspire to do so. Customers for each of these businesses were across all fifty states. The company selling globally has customers in Australia, Europe, and the Middle East.

What marketing methods do you use to reach distant customers? First, it is prudent to define the term marketing. The latest definition provided by the American Marketing Association is "Marketing is the activity, set of institutions, and processes for creating, communicating, delivering, and exchanging offerings that have value for customers, clients, partners, and society at large" (Brunswick, 2014, p. 111). There are two main categories to achieve this. One is through paid demand creation activities and the other is through earned demand creation activities (Blank & Dorf, 2012, p. 133). An overview of marketing methods for the companies is in table 1.

Table 1

Marketing Methods

Products	Channel	Scale	Local Sales	Local Pop.	Website	SEO	Facebook	Online Store	eBay Store	YouTube	Reddit	Instagram	Twitter
Retail	B2C	National	10%	7,000	Yes	Yes	Yes	Yes	No	Yes	No	Yes	Inactive
Retail	B2C	National	10%	20,000	Yes	Yes	Yes	Yes	No	No	No	Yes	Yes
Retail	B2C	National	5%	20,000	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Inactive
Retail	B2C	National	0%	20,000	Yes	Yes	Yes	Yes	3rd Party	3rd Party	3rd Party	No	Yes
Retail	B2B	Global	1%	20,000	Yes	Yes	Yes	Yes	Yes	No	No	No	No

*A third party (retailer) markets the subject company's products

One owner has a brick and mortar retail location in a town of 7,000. His aspirations were to grow his business nationally. He took the action of earned demand creation activities. Before he launched his online store, he began creating YouTube videos reviewing products sold in his physical store. He grew to become known as an expert in his industry with millions of views of his videos and hundreds of thousands of subscribers to his YouTube channel. He also solicited feedback from viewers as to what products they would prefer to purchase when he launched his online store. This was an extremely successful strategy for this company. To date, this owner has 594,000 subscribers to his channel and his videos have been viewed a total of over 84 million times. His choice for website provider is Shopify because it is very effective for a retail operation to display extensive inventory and checkout with a shopping cart. His site also has a feature which shows every time a purchase is made and the city in which the purchaser lives. This constant pop-up display confirms how popular this business is and that the customers are literally from every part of the United States. One additional side effect of

becoming an industry expert through is his physical store is routinely visited by customers from across the country who want to meet the owner.

Another owner who also sells retail products through a physical location, but generates 95% of his revenues from online sales has been successful using Reddit. Reddit is an online platform categorized by topics of interest which are arranged as communities for people to communicate. Every day, millions of people post, comment, and vote on the site. Current numbers from Reddit claim it is the fifth most visited site in the US, averages 330 million monthly users, has 130,000 active communities, and 21 billion screen views per month. This owner found communities which applied to the products he sells and would post and comment in those communities. This is another form of earned demand creation. This owner also started his own Reddit page where he lists items on sale.

The company of another owner produces retail products, but sells them at wholesale to retailers who then sell the products in their physical stores or online through their own websites or other sites, such as Amazon. So, this owner raises awareness for his products by generating demand from the retailers and by marketing to the end users. 100% percent of his sales are from outside his local area. For generating demand with the retailers, his company attends the trade shows for his industry. The majority of retailers attend these looking for new products and to establish relationships with wholesalers. During the tradeshow, sales are made and leads are generated. Afterwards, salespeople for the company follow up on the leads. The retailers who sell this company's products do their own advertising. However, this company also markets to the retail consumers. One method he has found effective is geographically targeted marketing. For example, if there is an event where hundreds or thousands of target customers are in attendance, his local communications provider can structure a mobile marketing campaign which will send ads to the cell phones of all the potential customers in a specific geographical area.

The company which only sells wholesale has found success by joining an industry organization which consists of businesses throughout the supply chain. Membership in this trade group gives this company access to both suppliers and customers globally. This is how most of her business is transacted. However, she also has a lucrative eBay store and attends industry tradeshows. *How long did it take for you to grow your company nationally/globally?* All five companies were able to expand to national sales (4 out of 5) and the fifth to global sales in less than two years.

A major theme emerged in the marketing practices for each of the companies studied, to effectively focus the marketing efforts where the customers are. This means not wasting time and money with an overly broad approach, but knowing their customers very well and communicating directly with the target group, whether by physical proximity, such as a tradeshow, or virtually, such a YouTube videos (Bhayani & Vachhani, 2014). Each company spends between less than 1% and 5% percentage of revenue for their marketing budgets, as this owner conveyed:

> Marketing is a very small percentage of our business, less than one percent. We have a lot of organic traffic and repeat customers. They come to our website looking for product A, then they buy product B and C because they are on sale.

Building lasting relationships with customers is extremely important for long-term success and it is reported acquiring new a customer may cost five to twenty-five times as much as retaining an existing customer (Gallo, 2015; Rasul, 2017). One business owner stated:

> We really focus on maintaining customer relationships and look at long-term value of the customer. We also have abandoned cart recovery, so if somebody adds something to

their cart and leaves, forgets to checkout or whatever, we email them saying you haven't checked out.

Repeated touch points with customers is part of building those relationships and keeping the customers engaged (Vivek, Beatty, & Morgan, 2012). One business owner expressed how repeated contact with customers is important, "We have 155,000 subscribers now to our newsletter. We have a lot of touches with the customer, whether it be a newsletter, whether it be Facebook marketing or Instagram."

Bolos, et al (2016) found that 90% of consumers state their buying decisions are influenced by online reviews. This coincided with the companies in this study whose products are reviewed on platforms such as Reddit and YouTube. This is reinforced by the statements of one of the interviewees who said:

> We often sell a product and limit our own marketing, we let it snowball organically and don't even try to make it go viral. Often, the products sell themselves. We see once it gets posted to the forums, Facebook groups and stuff like that and customers are saying these guys got a great deal and yeah I got mine in two days. So, we sold 6,000 units of one product in three weeks and didn't even push it.

Another important aspect of growing a business is to understand marketing is not the only function integral to success. Structuring a company to take advantage of opportunities and to accommodate increased demand from more effective marketing are also needed (Lee, Kozlenkova, & Palmatier, 2015). One owner expressed these feelings with his statements:

> I don't want to compete solely on price for a commoditized product, down to the nickel. So, strategic buying, supply chain management, being first to market or even last to market. I would rather buy it deep and own the market, then have the best pricing. I still make my money and do not have to race to the bottom because I control the market. By having the best price on the internet, the product will market itself. Because my business model has always been that, it has always given me a competitive advantage. By having good free cash flow, having solid finances, and being able to take measured risks. We have a holistic business model with good pricing, with good service, with fast fulfillment, and good delivery times. So, that builds on itself. We are not a marketing company. We are more of a distribution company.

Limitations and Future Research

This is a qualitative study which used purposeful sampling in order to seek in-depth answers to the research questions. The limitations are that only five business owners were interviewed. Although common themes emerged from this small sample, research involving a much larger sample is a logical next step. The development of an instrument to quantitatively analyze the marketing actions and results of small business owners is also warranted, if any generalizability of these finding is to be tested. Other future research can focus more closely on each of the specific marketing tactics and study these across industries to determine if certain variables may impact their effectiveness. With technology, the task of online marketing is not a slow-changing endeavor. Research such as this may need updating as current online platforms lose popularity and others are created, gain users, and take their place.

Conclusion

This study interviewed small business owners to discover and provide real-world examples of practical solutions rural entrepreneurs use to grow their businesses to the national

or global level and succeed regardless of the market size or conditions in their home localities. Methods the interviewed companies use to increase sales are supported by established research and can be duplicated by other firms who desire to increase sales. Insights gained from the study include the importance of knowing your customers well in order capitalize on the most appropriate marketing channels. By doing this proficiently, the marketing budget for these companies is less than five percent of sales. Frequent contact with customers is integral to establish relationships and retain customers for the long term. Today, most consumers rely upon online reviews before making their purchases. Lastly, the organization of the company and the other functions, such as cashflow management, product distribution, and customer service after the sale are crucial to company growth.

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David Versus Goliath: The Effects of Focus and Diversification in Small Hospitals

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ABSTRACT

Focus, also known as specialization, has been hypothesized to reduce the cost of care while simultaneously improving outcomes of patients. While focused (specialized) hospitals range from standalone specialty hospitals to hospitals choosing to emphasize on certain condition(s), authors have noted that there are limitations in the conceptualization and measurement to evaluate the concept of "focus as an emphasis" within a hospital. Given the importance of gaining economies of scale to implement a focus strategy, the size of a hospital and the basis of patients it serves has implications for the effectiveness of the strategy. This study attempts to
look at the implications of hospital size to assess the hospital's ability to reduce costs and address patient needs while also evaluating the impacts of a "focus as an emphasis" strategy.

INTRODUCTION

The concept of focus is rooted in the idea of the "focus factory" originally presented by Skinner (1974). Through a factory specializing on a specific product or family of products, they can gain a competitive advantage through economies of scale. The economies of scale occurs from improved efficiencies resulting from production processes aligning the equipment, supporting systems, and procedures for the production of the limited set of products (Skinner,
1974). As result, the factory gains the ability to provide differentiation from their competition while also commanding a cost advantage (Porter, 1985). While originally conceptualized as production-based strategy, similar applicability was explored in the service space. While a product can be produced separately from where they are sold, services lack the ability to sperate the process of providing the service from where the service is delivered. This requires that a
service-based industry to maintain a composition of services necessary to meet the needs of their customer(s). Thus the concept of "focus as an emphasis" (McLaughlin et al., 1995) was introduced to identify that a service-based firm may pursue a strategy where they align their operations to provide a select number of services in an exemplary way, despite having a larger portfolio.

Within the healthcare literature, there has been a limited amount of research evaluating focus as an emphasis. In particular, McDermott and Stock (2011) explored the extent of cardiac specialization with improved hospital performance with the presence of spillover and complementarity services. However, this type of study limits the generalizability of understanding how specialization, a.k.a. focus, influences overall hospital performance. Furthermore, such studies do not account for the effects related to the size of the hospital. In general, smaller hospitals have greater limitations on resources and need to effectively utilize those resources to have higher levels of performance. However, while specialization potentially provides processes streamlined to provide care to a limited set of

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patients, the ability of a hospital to gain a large enough patient base for a specific condition limits their effective use of capital investment – e.g. building space, imaging equipment, etc. This may require them to broaden their patient base to gain economies of scope. To this extent, this paper evaluates two aspects: 1) what are the benefits/limitations of the focus as an emphasis strategy on cost performance and patient satisfaction, and 2) what are the implications of focus as an emphasis when comparing hospital size?

THEORY & LITERATURE REVIEW

Hospital Performance

The decision about whether to focus on a specialized aspect of healthcare, or to offer greater variety of health related services, is important for all hospitals. However, the question is even more paramount for small hospitals, which are generally more resource constrained. The
decision however, is not straight forward, and can be approached from different perspectives. On the one side, specialization has the potential to reduce the cost of care in the short term, and concurrently improve quality of care, which can lead to long term reductions in cost. On the
other side, offering greater breadth of services will allow small hospitals to gain economies of scope by potentially serving a greater percentage of a population. While this question has been examined in several settings, and research has produced evidence to recommend certain practices, our understanding of the impact of specialization versus generalization in small businesses is limited. Of particular importance in this research, which is even more absent in the literature, is the effect of specialization in small hospitals.

Numerous studies applying economic theory have found interesting organizational outcomes associated with specialization. For example, the scale economies generated by more focused offerings has been found to positively impact performance (Wernerfelt & Montgomery, 1988), productivity (Lichtenberg, 1992), and long-term market returns (Lubatkin & Chatterjee, 1991). At least part of the benefits associated with scale economies has been found to be a reflection of improved information processing linked to specialization (Mintzberg, 1981; Rogers et al., 1999). When additional information is introduced, more resources are necessary to process and make sense of that information. Thus, as specialization decreases, task uncertainty increases,
generating greater amounts of information to process. In fact, Galbraith (1974) found that specialization limits the amount of information processing required, reducing task uncertainty.

In most large, generalized (i.e. more breadth of services) hospitals, information is usually constrained within siloed departments. Because of this there are more resources required to coordinate between departments. Accordingly, we believe that small hospitals who use a more focused strategy will be able to decrease information processing, and therefore improve performance.

> *Hypothesis 1: Small hospitals that used a more focused/specialized strategy will experience improved performance.*

Patient Satisfaction

While hospital costs and economic performance are measures hospitals use to evaluate success, patient satisfaction is another factor in which they are interested. Competition among health care providers can be intense. Thus, hospitals compete to attract patients and to influence them to have an overall positive impression about the care they received. Accordingly, patient satisfaction has been found to be linked to factors such as reductions in readmission rates (Boulding, Glickman, Manary, Schulman, & Staelin, 2011), improvements in illegal drug use (Zhang, Gerstein, & Friedmann, 2008), and increased market share, decreased malpractice and improved reimbursement rates (Shirley & Sanders, 2013). Research has also determined that patients' satisfaction with care is related to both tangible and intangible dimensions of quality of care (De Man, Gemmel, Vlerick, Van Rijk, & Dierckx, 2002), and can be used by hospitals to better understand the patient's experiences and to improve in areas where patients have complaints (Draper, Cohen, & Buchan, 2001). Since specialized services should improve tangible quality of care, we would expect that hospitals who offer more focused care, would realize improved patient satisfaction rates.

> *Hypothesis 2: Small hospitals that used a more focused/specialized strategy will experience improved patient satisfaction.*

METHOD

Data

Quoted from most recent paper:

> The current paper uses data from several sources: Nationwide Inpatient Sample (NIS) for

2008-2011, the Centers of Medicare and Medicaid Services (CMS) Hospital Compare databases from 2008-2011, the Centers of Medicare and Medicaid Service (CMS) Final Rules files from
2008-2011, and the Area Health Resources Files (AHRF) from 2002-2010. Data from NIS was collected from a representative sample of hospitals equaling about 20% of U.S. hospitals. Data beyond 2011 was not used due to structural changes to the data starting in 2012, when only samples of patient data, rather than all patient data, was collected.

Measures

Attempted to distinguish the difference between focus versus diversification. With focus being evaluated as a means of emphasis, traditional measures such as a proportion, concentration, or entropy are not appropriate. As a result, the measures of focus and diversification were viewed from the perspective of ecology. For a given population diversity is viewed as two distinct concepts: 1) richness of categories and 2) evenness. To separate out diversification (or breadth) of services, the richness (S) of the categories of care were counted at the medical diagnosis category (MDC) and the diagnostic related category (DRG).To assess focus, a lack of evenness was evaluated by using the negative of the

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Simpson's evenness (E). This assesses the degree to which cases are evenly spread across the MDC level.

- A specialized hospital rarely focuses on a specific procedures (DRG). While there are example of the Shouldice Hospital (Heskett, 2003), most hospitals strategically pick the

  organ-related areas (MDC) that they will specialize within – e.g. cardiac, orthopedics, etc. Thus, keeping the specialization measure at the MDC level is most appropriate.
- The extent to which the hospitals will admit patients is based upon the coverage of care they provide for the condition. This means they may admit based upon MDC or the extent of procedural coverage (DRG). As a result, we look at both levels in conjunction of "focus as an emphasis."

Performance measures – ln(Cost per discharge) and patient overall experience (i.e. patient satisfaction) pulled from CMS HCAHPS survey.

PRELIMINARY RESULTS

As can be seen in the preliminary results in the tables below, specialization, as compared to generalization, affects small hospital performance as well as patient satisfaction. Results from
our analysis show that small hospitals who utilize a focus strategy experience a cost advantage of cost per discharge. This provides support for hypothesis 1. The most notable finding in these initial analysis is that small hospitals that specialize experience increased patient satisfaction
with care, while large hospitals experience no such benefit. This provides support for hypothesis 2.

Tables 2a, 2b, and 2c. Regression results for Patient Satisfaction

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-> hosp_bedsize = 1

Linear regression

Number of obs	= 355
F(13, 341)	= 11.54
Prob > F	= 0.0000
R-squared	= 0.2937
Root MSE	= 11.991

pat_overall	Coef.	Robust Std. Err.	t	P>|t|	[95% Conf.	Interval]
c_mdc_e_n	2.154385	.8730996	2.47	0.014	.4370464	3.871724
c_drg_s	-7.366517	1.4892	-4.95	0.000	-10.29569	-4.437343
year2	4.453741	1.990203	2.24	0.026	.5391202	8.368361
year3	5.738141	1.835613	3.13	0.002	2.127591	9.348692
year4	3.679817	1.927754	1.91	0.057	-.1119693	7.471603
region2	2.148721	2.092331	1.03	0.305	-1.96678	6.264221
region3	-2.046198	1.854144	-1.10	0.271	-5.693198	1.600802
region4	-3.720182	2.064737	-1.80	0.072	-7.781407	.3410425
hosp_mhsmember	1.618763	1.505265	1.08	0.283	-1.342012	4.579537
forprofit	-4.880503	2.50624	-1.95	0.052	-9.810139	.0491325
hosp_teach	.7107671	1.849732	0.38	0.701	-2.927554	4.349088
hosp_location	-.9227217	3.71401	-0.25	0.804	-8.227975	6.382532
cmi	14.86302	2.651746	5.60	0.000	9.647185	20.07886
_cons	36.52782	4.550762	8.03	0.000	27.57672	45.47892

Medium hospital

-> hosp_bedsize = 2

Linear regression

Number of obs	= 528
F(13, 514)	= 8.29
Prob > F	= 0.0000
R-squared	= 0.1738
Root MSE	= 12.681

pat_overall	Coef.	Robust Std. Err.	t	P>|t|	[95% Conf.	Interval]
c_mdc_e_n	.5458824	.7961549	0.69	0.493	-1.018235	2.11
c_drg_s	.5970894	2.186134	0.27	0.785	-3.697767	4.891946
year2	3.734406	1.72201	2.17	0.031	.3513624	7.11745
year3	3.937877	1.568299	2.51	0.012	.8568118	7.018941
year4	4.508119	1.655619	2.72	0.007	1.255507	7.760731
region2	9.123721	1.819732	5.01	0.000	5.548693	12.69875
region3	5.629769	1.556119	3.62	0.000	2.572632	8.686905
region4	3.245893	1.79077	1.81	0.070	-.2722362	6.764022
hosp_mhsmember	2.776801	1.243433	2.23	0.026	.3339642	5.219638
forprofit	-7.569458	1.670257	-4.53	0.000	-10.85083	-4.288089
hosp_teach	-2.6594	1.770942	-1.50	0.134	-6.138575	.8197739
hosp_location	-8.626372	2.175936	-3.96	0.000	-12.90119	-4.35155
cmi	13.79064	3.891099	3.54	0.000	6.14623	21.43506
_cons	32.92404	4.985543	6.60	0.000	23.12949	42.71859

Tables 1a, 1b, and 1c. Regression Results for Cost per Discharge

-> hosp_bedsize = 3

Linear regression

Number of obs	=	764
F(13, 750)	=	18.95
Prob > F	=	0.0000
R-squared	=	0.2970
Root MSE	=	11.194

pat_overall	Coef.	Robust Std. Err.	t	P>|t|	[95% Conf.	Interval]
c_mdc_e_n	.6641931	.7594782	0.87	0.382	-.8267628	2.155149
c_drg_s	2.500687	1.937507	1.29	0.197	-1.302895	6.30427
year2	4.578249	1.195173	3.83	0.000	2.231966	6.924532
year3	7.352952	1.193849	6.16	0.000	5.009269	9.696634
year4	8.600362	1.19609	7.19	0.000	6.252279	10.94845
region2	6.938932	1.473541	4.71	0.000	4.046177	9.831686
region3	6.777167	1.214074	5.58	0.000	4.393781	9.160554
region4	4.293369	1.332865	3.22	0.001	1.676779	6.909959
hosp_mhsmember	.3851134	.8961972	0.43	0.668	-1.37424	2.144467
forprofit	-12.35703	1.621717	-7.62	0.000	-15.54067	-9.173382
hosp_teach	-3.028248	1.152136	-2.63	0.009	-5.290043	-.7664528
hosp_location	-8.062158	1.983883	-4.06	0.000	-11.95678	-4.167535
cmi	16.90469	2.49685	6.77	0.000	12.00304	21.80633
_cons	23.67933	3.177859	7.45	0.000	17.44077	29.91788

Tables 1a, 1b, and 1c. Regression Results for Cost per Discharge

Small hospital

-> hosp_bedsize = 1

Linear regression

Number of obs	= 306
F(13, 292)	= 13.97
Prob > F	= 0.0000
R-squared	= 0.4583
Root MSE	= .27097

lnCPD_senot	Coef.	Robust Std. Err.	t	P>|t|	[95% Conf.	Interval]
c_mdc_e_n	-.0863583	.0209588	-4.12	0.000	-.1276078	-.0451087
c_drg_s	-.122811	.0368454	-3.33	0.001	-.1953272	-.0502947
year2	.0450468	.0452744	0.99	0.321	-.0440588	.1341524
year3	.0534439	.0475123	1.12	0.262	-.040066	.1469538
year4	-.0135894	.0446764	-0.30	0.761	-.101518	.0743391
region2	-.0274645	.0508209	-0.54	0.589	-.1274861	.0725571
region3	-.1657422	.0367715	-4.51	0.000	-.238113	-.0933714
region4	.1002864	.0468099	2.14	0.033	.0081587	.192414
hosp_mhsmember	.01419	.0337914	0.42	0.675	-.0523157	.0806956
forprofit	-.1887446	.0509755	-3.70	0.000	-.2890705	-.0884186
hosp_teach	.0953766	.0451335	2.11	0.035	.0065483	.1842049
hosp_location	.12565	.0814607	1.54	0.124	-.0346745	.2859746
cmi	.6909944	.0839643	8.23	0.000	.5257425	.8562463
_cons	7.985676	.1232543	64.79	0.000	7.743097	8.228256

Medium hospital

-> hosp_bedsize = 2

Linear regression

Number of obs	= 475
F(13, 461)	= 46.83
Prob > F	= 0.0000
R-squared	= 0.5576
Root MSE	= .21846

lnCPD_senot	Coef.	Robust Std. Err.	t	P>|t|	[95% Conf.	Interval]
c_mdc_e_n	-.0842717	.0120756	-6.98	0.000	-.1080018	-.0605416
c_drg_s	-.0433607	.0318045	-1.36	0.173	-.1058604	.019139
year2	.0235024	.0292143	0.80	0.422	-.0339073	.080912
year3	-.0127571	.0294269	-0.43	0.665	-.0705846	.0450704
year4	.0023607	.0294829	0.08	0.936	-.0555768	.0602983
region2	-.0875659	.0313555	-2.79	0.005	-.1491833	-.0259486
region3	-.1050333	.0334044	-3.14	0.002	-.170677	-.0393896
region4	.0238372	.0358609	0.66	0.507	-.046634	.0943083
hosp_mhsmember	-.00918	.022219	-0.41	0.680	-.052843	.034483
forprofit	-.1127683	.0328341	-3.43	0.001	-.1772914	-.0482451
hosp_teach	.011787	.034397	0.34	0.732	-.0558074	.0793814
hosp_location	.161844	.0408215	3.96	0.000	.0816248	.2420632
cmi	.7890887	.0693731	11.37	0.000	.652762	.9254153
_cons	7.85935	.0863033	91.07	0.000	7.689753	8.028947

```
-> hosp_bedsize = 3

Linear regression                               Number of obs     =        677
                                                F(13, 663)        =      80.22
                                                Prob > F          =     0.0000
                                                R-squared         =     0.6133
                                                Root MSE          =     .20357
```

lnCPD_senot	Coef.	Robust Std. Err.	t	P>|t|	[95% Conf.	Interval]
c_mdc_e_n	-.0955516	.0138391	-6.90	0.000	-.1227254	-.0683778
c_drg_s	-.0136094	.0296049	-0.46	0.646	-.07174	.0445212
year2	.0252407	.0209576	1.20	0.229	-.0159105	.066392
year3	.0325719	.0220808	1.48	0.141	-.0107849	.0759286
year4	.0431771	.0237651	1.82	0.070	-.0034868	.089841
region2	.0434425	.0297117	1.46	0.144	-.014898	.1017829
region3	-.0597466	.0289661	-2.06	0.040	-.1166229	-.0028703
region4	.1728055	.0324371	5.33	0.000	.1091136	.2364974
hosp_mhsmember	.0123529	.0164682	0.75	0.453	-.0199833	.044689
forprofit	-.1069518	.0269239	-3.97	0.000	-.1598182	-.0540854
hosp_teach	.0886986	.0239594	3.70	0.000	.0416533	.135744
hosp_location	.1484349	.0325604	4.56	0.000	.0845009	.2123689
cmi	.4887577	.0524587	9.32	0.000	.3857524	.5917629
_cons	8.153614	.0704496	115.74	0.000	8.015283	8.291945

DISCUSSION

Small hospitals compete for a limited set of resources. They see greater cost benefits from increasing the number of services offered, however, that simultaneously causes them to see a reduction in patient overall satisfaction. Much of this is probably a result of limited information processing slack required to coordinate care for patients presenting with a variety of issues. However similar effects are not seen in medium and large hospitals. So what is the hospital to do? Worst off, the advantage of focusing seems to be lessened as well. Nuances of this finding requires additional analysis, which will be incorporated into our paper going forward. Thus, larger hospitals may in fact be winning the “medical arms race” presented by authors. Future research should look at the potential impact of smaller hospitals being more effective as feeder hospitals for larger institutions. Should also evaluate the impact to hospitals – typically small hospitals – serving rural communities, especially when they are the only hospital in their respective regions.

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THE MINIMIZATION OF FIRM NOVELTIES BY FOUNDING TEAMS

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ABSTRACT

To continue the process of understanding and explaining how the liability of firm newness can be minimized, thereby raising the survival rates of new ventures, the manuscript outlines and identifies leadership team behaviors and factors that may contribute to the minimization of certain detrimental novelties associated with firm newness. Proposed is an entrepreneurial founding team's recognition of the benefits of organizational citizenship behaviors, as well as these behaviors' heightened use, may lead to more effective internal processes and more beneficial relationships with stakeholders in the task environment. The benevolent effects of this usage are argued to minimize the three of the detrimental novelties associated with firm newness. Theoretical and empirical works in the areas of organizational citizenship behaviors and liability of newness are reviewed to substantiate this contention. A moderation model is developed, and propositions are derived to serve as bases for future theoretical inquiry and empirical testing.

Introduction

Entrepreneurship researchers and theorists at times portray new venture stakeholders as skeptical constituents, capable of annihilating the hopes and financial resources of entrepreneurs if stakeholder inquiries and concerns are not acknowledged and managed. This portrayal is valid given the high failure rates of most start-ups, which can be partially attributed to stakeholder relations (Timmons, 1990, 1999). Theorists and empiricists alike have acknowledged that both stakeholders' lack of trust and their general skepticism often stem from the novelty associated with new ventures; and, both the absence of trust and assuredness are manifested in the uncertainties associated within new venture leader-stakeholder relationships and the novelties associated with internal processes of new ventures at start-up (Hannan & Freeman, 1984; Schumpeter, 1934; Stinchcombe, 1965). Entrepreneurial founding teams (EFTs) must account for and skillfully attempt to minimize these novelties and uncertainties from the outset of the founding of their ventures if their firms are to survive infancy (Delmar & Shane, 2004; Nagy, Pollack , Rutherford, & Lohrke, 2012; Shane & Cable, 2002).

The need to investigate and understand this inherent task embedded in the day-to-day duties of all new venture leaders has prompted a stream of discussion and empirical research meant to describe, examine, and test the factors related to venture survival, newness and uncertainty (Cornelissen & Clark, 2010). Investigations and examinations of the effects of liability of newness have resulted in some understanding of who new venture constituents are, how they should be prioritized (Choi & Shepherd, 2005), and why they harbor their sentiments and maintain their conservative postures (Aldrich & Fiol, 1994; Delmar & Shane, 2004; Shepherd, Douglas, & Shanley, 2000). A considerable amount of work related to prescribing methods for minimizing the uncertainty limiting many relationships EFTs have with their constituents still remains to be accomplished (Choi & Shepherd, 2005; Nagy, Rutherford, Truong, & Pollack, 2017; Shepherd & Zacharakis, 2003).

To continue the process of understanding how uncertainty and liability of newness can be mitigated, thereby raising the survival rates of new ventures, this manuscript outlines and

discusses factors at the leadership team level of the new venture that may contribute to the minimization of uncertainty both within and outside the firm. Proposed is that increased recognition of the benefits of organizational citizenship behaviors (OCBs), as well as these behaviors' heightened use by EFT members, might lead to more effective internal processes and more productive relationships with stakeholders in the task environment, thereby reducing liability of newness. The following discussion of how the use of OCBs might combat the liabilities associated with firm newness acts as an initial step to better understand the efforts that need to be made by EFTs if uncertainty is to be attenuated and survival rates among new ventures are to increase. Within this discussion, a model is proposed illustrating both the direct effects of OCB usage on organizational effectiveness as well as the moderating effects of OCB usage on the negative relationship between organizational effectiveness and the liabilities and novelties associated with firm newness. Several propositions are offered as guides for empirically testing the contentions introduced.

The Novelties Associated with New Ventures

From the outset of their creation new ventures face liabilities in many forms (Abatecola & Uli, 2016). Financial liabilities are the deterrents often argued most salient (Huybrects & Nicholls, 2013). Coupled with start-up costs associated with venture creation and the general financial needs to fuel future operations are those liabilities which are less tangible. These often-vague detriments to firm survival are the focal issues encompassed by the concept known as liability of newness (Stinchcombe, 1965). The disadvantages associated with liability of newness are intangible and are not directly accounted for on financial statements. Liability of newness includes factors and characteristics hampering a new venture's likelihood of success. Liability of newness is thought to significantly contribute to high death rates among new ventures (Stinchcombe, 1965). The liability exists because of the age of the firm and lack of experience among founders (Carroll, 1983; Freeman, Carroll, & Hannan, 1983; Thornhill & Amit, 2003). Careful management of this liability is an important determinant of survival, given that time, effort and resources must be allocated in order for the new venture to shed its distinction as novel, illegitimate and unreliable in the eyes of key stakeholders (Singh, Tucker, & House, 1986).

Scholars and researchers have focused their efforts on investigating and understanding liability of newness by distinguishing different types of novelties associated with new ventures (Shepherd et al., 2000; Shepherd & Zacharakis, 2003; Singh et al., 1986). One type of novelty is 'novelty to the market.' This particular novelty is tied to a new venture's lack of legitimacy and the start-up's need to institutionalize processes and offerings. Another novelty is linked to the social relationships inside and outside the firm. The 'novelty to management' refers to the reputation of the start-up's leadership team, as well as the team's collection of social ties which link the firm to its stakeholders. Finally, because new ventures often lack the routines and knowledge necessary to effectively produce their products and services from their available resources, the 'novelty in production' also impedes start-ups during the earliest stages of operation. For entrepreneurs and EFTs, management of these three intangible challenges is of upmost importance to ensure new venture viability.

Novelty to the Market

Firm survival is enhanced by the products and activities that are recognizable and familiar to stakeholders such as customers and suppliers (Delmar & Shane, 2004; Hannan & Freeman, 1984; Meyer & Rowan, 1977). Because a new venture often utilizes innovative and

nuanced features in its marketing and production of products and services, stakeholders observing the start-up often are not immediately familiar with the firm and its offerings.

Novelty to the market is defined as customers' and other key stakeholders' lack of knowledge related to a new venture and that venture's products and services. Shepherd et al. (2000) state the concept "concerns the degree to which customers are uncertain about the new venture." Novelty to the market underlies and provides a partial foundation to the liability of newness concept, and is a malevolent characteristic of most, possibly all, new ventures (Shepherd & Shanley, 1998). Shepherd et al. (2000) first related this inherent liability of start-ups to the amount of information about the new venture and its EFT that is available to key customers. Considering the importance of other key stakeholders in the marketplace (e.g., suppliers, logistic partners), it is assumed the concept of novelty to market embodies other environmental constituents as well, given their roles in the market and their positions of power and control.

Novelty related to the market and those impacting the market stems from an absence of information which directly and indirectly impacts levels of legitimacy among new ventures. In contrast to information related to established and well-known firms in a market, the awareness of a new venture as well as the amount of information available related to new ventures are usually very limited (Singh et al., 1986; Zimmerman & Zietz, 2002). Consequently, new firms lack the legitimacy needed to be perceived as competent, effective and worthy, due to this lack of information in the market (Hannan & Freeman, 1984). In order to compete in most marketplaces EFTs must create the perception that their organization is legitimate through calculated releases of information, infusing conversations, media contacts, and financial reports with information related to the organization's competencies and affable qualities (Delmar & Shane, 2004; Rutherford & Nagy, 2015). In addition, by attempting to manage stakeholder perceptions and demands, new firms must create the external routines needed in order to attain legitimacy by fostering awareness among stakeholders and continuously servicing them, thereby becoming viewed or rated as competent and worthy (Singh et al., 1986; Zimmerman & Zeitz, 2002; Delmar & Shane, 2004).

Novelty to Management

Arguably, two of the most important initiatives EFTs assume are establishing knowledge and communication between members of the EFT and among the collection of stakeholders that will ultimately determine their ventures' abilities to grow. Communication and stakeholder trust are important assets for new venture leaders to foster and utilize during the infancy of their operations (Arrow, 1974; Haack, Pfarrer, Scherer, 2014; Stinchcombe, 1965). The probability EFTs will successfully court investors and acquire the resources needed to survive competitive forces within markets is likely low unless they are able to demonstrate a track record of successful ventures management internally, and are able to create social ties promoting trust among external stakeholders (Stinchcombe, 1965).

Novelty to management is defined as uncertainty related to the new venture management team (Shepherd et al., 2000). The uncertainty stems from the lack of knowledge within the EFT, as well as external stakeholders' lack of knowledge and understanding related to levels of competency, experience and skills possessed by the EFT. Beneficial relationships with stakeholders and a proven record of managing projects or ventures in times or environments characterized as uncertain and ambiguous usually aid the efforts of EFTs to minimize this particular novelty (Shepherd et al., 2000). On the onset of founding this challenge is often

manifested in uncertainty among EFT members, that then evolves to include external stakeholder groups (Evans & Leighton, 1989; Shane & Cable, 2002).

If new venture leaders are function as a unit and ultimately be able to obtain financing and resources from investors they must be perceived as legitimate and reliable by demonstrating the potential for success within the new firm context. If knowledge and a general understanding of the successes and potential of the leadership team can be relayed internally and to potential resource-holding external stakeholders, it is assumed that social ties need to be established. These bonds may increase the probability that both internal leader members as well as external parties will engage in beneficial transactions (Fried & Hisrich, 1994; Shane & Cable, 2002). These social tie serve to help bind the EFT and aid in the new venture's quest for viability, assuming the resource-baring stakeholders eventually will become convinced the leadership of the new venture is a suitable financial partner by the leadership team meeting external stakeholders' specific business requirements.

Novelty in Production

Uncertainty and complexity associated with innovative production technologies used by new ventures often are linked to difficulties related to the production of goods and services (Schumpeter, 1934). By their very nature, most new ventures tend to rely on innovation and novel methods of consuming and utilizing resources to produce goods and services that will be valued by market constituents. Paradigm shifts as well as systematic innovations to production processes with the use of new technologies can be troublesome to manage, especially when all other facets of the organization are new as well (Teece, 1996).

Novelty as it relates to the production process is viewed as problematic whenever new technology is introduced into an organizational setting in an effort to create core competencies. Novelty in production is defined as lack of understanding and knowledge pertaining to the production technology used by a new firm to create core competencies (Shepherd et al., 2000). The common effect of novelty in production is difficulty in manufacturing a new product or rendering a new service given a lack of knowledge and experience associated with the firm's production team members.

The novelty is likely rooted in two features of new ventures. First, because the firm is new, the assembly of the production group is very recent. This recent assembly often leads to uncertainty related to work roles, duties and responsibilities, especially those disciplines directly tied to the conversion process. From the nascent stages of development through start-up, formal structures and standard operating procedures often do not exist or are not yet known. Much knowledge is gained based on tacit learning which then resides in only one or two members of the EFT. Second, because new venture leaders are likely working with new technologies to convert resources, uncertainties related to the technologies and less than completely reliable processes linked to innovative efforts will often negatively affect production and indirectly negatively affect all other facets of the organization.

If new venture leaders are to create and hone core competencies from the innovations and technologies they uniquely utilize in their organizations they must reduce the levels of uncertainty related to these technical elements (Delmar & Shane, 2004). Core competencies have a technical as well as an economic element (Thompson, 1967). One of the keys to the creation of core competencies might be the careful management of economic expenditures related to effectively training new employees working with new technologies. Lessening the need to allocate money to formal training efforts might equate to more resources being available for research and development. Additionally, the rapid formations of informal organizational

networks built to quickly and effectively disseminate information related to the new technologies will be important complements to the technologies used in the new firm. The probability that benefits will be realized in other areas of the organization like research and development will be increased if economic expenditures related to the training and management of production-related personnel can be minimized (Teece, 1986).

Organizational Citizenship Behaviors

The preceding discussion focused on the inherent liabilities and novelties associated with EFTs. The conscious acknowledgement of these liabilities and the subsequent behaviors new venture leaders demonstrate to manage these liabilities are fundamentally tied to the success of the new venture (Shane & Cable, 2002; Shepherd & Zacharakis, 2003; Stinchcombe, 1965). If those behaviors include organizational citizenship behaviors, the novelties associated with firm newness might be more effectively and efficiently minimized.

Organizational citizenship behaviors (OCBs) are defined as discretionary actions that go beyond organizational members' formal role requirements and are meant to contribute to individual, group and organizational effectiveness (Organ, 1988). Evidence to argue the OCB construct can be divided into at least two dimensions has been previously noted in the management literature (Smith, Organ, & Near, 1983). One dimension, altruism, is defined as actions benefiting others in the group or the larger whole often at the expense of the actor. The other dimension is general compliance, regarded as one's behaving as if one has a conscience. Altruistic behaviors encompass those behaviors which are specific to organizational members interlocked in face-to-face situations, and when enacted sometimes result in significantly noteworthy occasions. Examples of the altruistic-type OCBs are being extra helpful when coworkers are absent, volunteering to work after the expected work hours, and working at a faster pace to make up for coworkers slowness or shirking. General compliance behaviors include those behaviors which are not necessarily directed at any one organizational member but rather are enacted to abide by informal and formal institutional requirements. Examples of compliance-type OCBs include arriving to work on time, not taking too many coffee breaks, utilizing only the allotted time available for lunch, and the sharing of information among organizational members.

Since the heightened importance of these behaviors, led by Organ (1988) in the early 1980's, many studies have been conducted to more fully understand the dimensionality of the OCB construct (Borman & Motowidlo, 1993; Morrison, 1994; Van Dyne, Graham & Dienesch, 1994). Most of the taxonomies proposed within those works are close derivatives of Organ's (1988) proposed expansion of the construct, which included the elements, altruism and conscientiousness, as well as courtesy (e.g., consulting others before acting, sharing of vital organizational information), civic virtue (e.g., acquiring and understanding information that impacts the group or the organization), and sportsmanship (e.g., not complaining about decision and actions made by others in the organization). Though some attempts have been made to append to this list with investigations into possible significant dimensions like loyalty (Moorman & Blakely, 1995) and social participation (Van Dyne et al., 1994) most researchers have concluded these five dimensions are at the root of the construct (Coleman & Borman, 2000; Motowidlo, 2000).

As scholars have highlighted and contested thoughts related to the dimensionality of OCBs, arguments were made supporting the division of the OCB construct into subgroups (Coleman & Borman, 2000; Van Scotter & Motowidlo, 1996; Williams & Anderson, 1991). The

subgroups further delineate OCBs based on individual- or organizational-relatedness, which highlights the importance of the use of OCB usage both within an EFT and outside of it. Likewise, 'task performance' and 'contextual performance' relating OCBs utility in terms of both individual jobs within the EFT as well as activities supporting the social and psychological context outside the EFT highlight the potential effects of OCBs (Borman & Motowidlo, 1997).

OCBs and Organizational Effectiveness

Although its dimensionality is debatable, most theorists studying OCBs believe although they are elective in nature, these behaviors are necessary to promote the effective functioning of the organization (Organ, 1988). Karambayya (1990) was the first researcher to attempt to link OCBs and organizational effectiveness. Her empirical test involving both high and low performing work units resulted in her concluding a relationship between organizational effectiveness and OCBs likely exists. Other studies have followed. Podsakoff and MacKenzie (1994) in their study of 116 insurance agency units found evidence suggesting that both civic virtue and sportsmanship behaviors are positively related to their chosen measure of effectiveness, sale performance. MacKenzie, Podsakoff, and Ahearne (1996) continued the stream of empirical analyses related to the utility of OCBs by examining the relationship between OCBs and sales figures among 306 pharmaceutical sales teams. The evidence found in this study suggested that enacting helping behaviors as well as behaviors related to civic virtue are likely related to increases in sales among these teams. Podsakoff, Ahearne, and MacKenzie (1997) followed up their 1996 analysis with an empirical study utilizing data from the paper mill industry, finding evidence to suggest a positive correlation between citizenship behaviors deemed as 'helping behaviors' and organizational output exists. Most recently, evidence has been found which suggests that OCBs are positively associated with group performance, but this relationship is moderated by the level of task interdependence within the work setting (Bachrach, Powell, Collins, & Richey, 2006). This finding adds an obvious new twist to a story that still has not been fully told in the literature related to OCBs and effectiveness on the group and organizational levels.

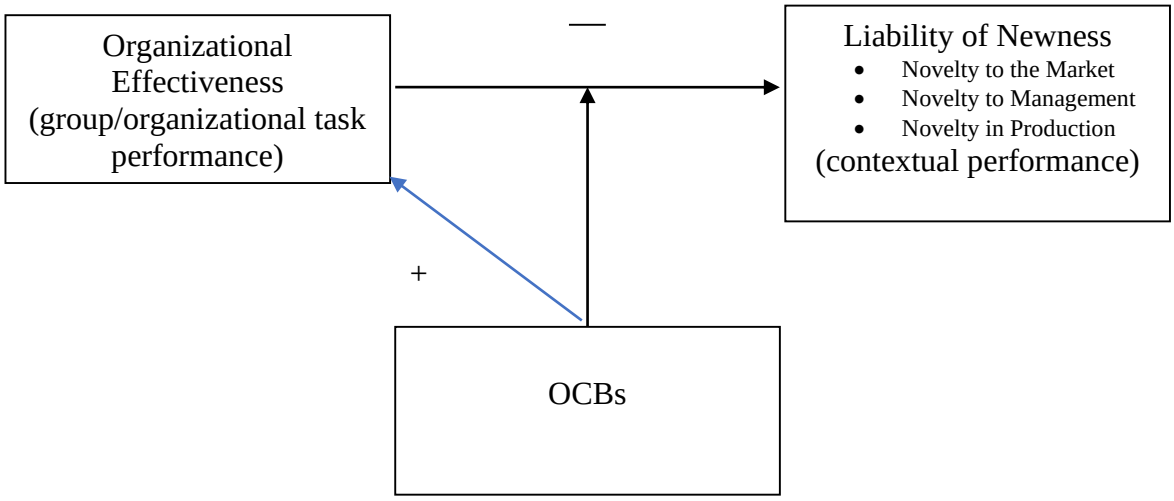
In sum, the studies testing the proposition that enactment of OCBs is positively related to organizational effectiveness reported evidence that the two constructs are positively related (Organ, 2018). Although empirical evidence linking specific OCB-type behaviors to effectiveness is stronger for some dimensions of the OCB construct the empirical evidence reported does support Organ's (1988) contention that performing discretionary actions and exceeding the organizational member's formal role requirements might contribute to individual, group and organizational effectiveness.

Organizational Newness and OCBs

In a number of empirical studies utilizing samples from a number of different settings, evidence has been presented to argue OCBs are positively and directly related to the effective performances of organizations and organizational groups (Karambayya, 1990; Podsakoff et al., 1997; Podsakoff & MacKenzie, 1994). This evidence has implications in the new venture context. Contended is that a relationship exists among new venture effectiveness, the enactment of OCBs at the highest level of the firm, and the novelties which hinder new venture survival. Therefore, the general research question serving to guide this manuscript has been, "does the use of OCBs both directly affect group and organizational performance, while also moderating the negative relationship between effectiveness and the liabilities associated with being new?"

Podsakoff and MacKenzie (1997) outline several potential reasons why OCBs might be positively directly related to the effective performance of EFTs, which in essence are high-level work groups. The argument posited is OCBs might enhance coworker productivity by enabling productive workers to remain focused on what they do best (MacKenzie, Podsakoff, & Fetter, 1991, 1993; Organ, 1988). OCBs related to civic virtue and overall group initiatives might provide managers with insight and inspiration when dealing with complex and arduous issues, and in addition, these behaviors might free-up managers' time and resources (MacKenzie et al., 1991, 1993; Organ, 1988; Podsakoff & MacKenzie, 1994). Certain behaviors when enacted by organizational members like EFTs may minimize the need to maintain order and harmony in the production process, ultimately leading to less time having to be spent on coordination of new venture leaders and rectifying problems stemming from nonconforming procedures and tasks being performed (Karambayya, 1990; Organ, 1988; Smith, Organ, & Near, 1983). OCBs might also contribute to the stability of performance within a new venture while effectively reducing variability in workloads and deviations from quality standards (Folk, Hartman, Patti, & Razek, 1999). Finally, EFT membetrs who actively seek information about the operations of the organization and duly maintain high levels of sportsmanship might aid the efforts of the new venture when adaptation is necessary and attention to customer sentiments and demands is vitally important. In sum, OCBs have the potential to be enacted at the highest level of a firm and make a significant impact on new venture survival. That is, when these behaviors are enacted by EFT members, theory suggests OCBs will have a moderating effect on negative relationship between organizational effectiveness and the novelties associated with firm newness.

Figure 1. OCBs' effect on the relationship between organizational effectiveness and liability of newness



Minimization of Novelty to the Market

The novelty to the market liability is related to the amount of information concerning the new venture that is available to key market constituents. Considerable skepticism will shroud the new venture whose potential customers and outside stakeholders have little or no knowledge of the firm's products and services (Shepherd & Zacharikis, 2003). Aside from the costly endeavor of imparting information on the market through the use of advertising, the new venture may facilitate the information dissemination process simply by ensuring the leadership team is aware of each member's knowledge and decisions as they relate to their areas of responsibility, thereby

elevating the overall level of organizational knowledge. The key factors likely required to elevate leaders' knowledge of all facets of the firm are their working knowledge of each member's responsibilities, patterns of interest, and goals. For example, if the EFT member responsible for sales and marketing takes the initiative to be involved in the product development and production processes, he or she can potentially gain knowledge related to the vocabulary and semantics currently used in the marketplace. Demonstrating initiative, interacting with colleagues, and helping fellow organizational members responsible for the technical aspects of the new venture's offerings might lead to direct and indirect organizational benefits and advancements.

Rhetorical conversations have been shown to be positively related to organizational strategies aimed at gaining legitimacy granted by stakeholders (Suddaby & Greenwood, 2005). The value that outside stakeholders like customers put on technological advances and reference to existing technologies seems of paramount importance (Chaffee, 1985). Exercising OCBs, whether in the form of civic virtue, courtesy, or general helping behaviors, enable new venture leaders to infuse their discussions, media contacts, and financial reports with the symbolic vocabulary necessary to lessen stakeholders' sentiments of uncertainty. The knowledge that is gained through OCB enactment coupled with the effective management of the respective areas of the organization may result in general perception among market constituents that the new venture is indeed competence and worthy of a place in the market. This leads to the first proposition:

> *Proposition 1: The use of organizational citizenship behaviors by entrepreneurial founding team members aids the process of disseminating the knowledge required by market constituents, and will result in the minimization of novelty of market.*

Minimization of Novelty to Management

Novelty to management is related to the amount of information related to the new venture team which is currently available to potential investors and powerful financial constituents. The reputations and network ties related to EFTs have instrumental roles in the decision-making process of investors (Shane & Cable, 2002). Therefore, two issues facing EFTs are ensuring the reputation of the leadership team is perceived as desired, and capitalizing on the formation of social ties members of the leadership have with external stakeholders. The inherent problems uniquely associated with the new venture context are information about the EFT may not be widely known, and strong social ties among EFT members may not yet be established. These issues that plague many new ventures are problematic considering that many stakeholders like potential investors highly value management familiarity when considering investment options (MacMillan, Zemann, & SubbaNarasimha, 1987).

The process of establishing a reputation among external stakeholders and ensuring the positive attributes of the EFT are known will require a pooling of knowledge and the establishment of social ties among the leadership of the new venture. The enactment of OCBs during formal and informal interactions among the leaders of the new venture will likely facilitate the arguably strategic processes of establishing a reputation and strong social ties. The sharing of expectations, goals, knowledge, and past histories will occur as members of the leadership team become involved in one another's areas of responsibility. This involvement will be facilitated by the use of altruistic behaviors, courteous behaviors, and behaviors considered exercises in civic virtue. Ultimately, a pooling or synergic effect may result from the use of these behaviors resulting in an increased knowledge base among new venture team of leaders. As this

knowledge is utilized during discussions with individuals and institutions, the groundwork for forming a reputation within the task environment will commence. For example, potential investors meeting with the new venture principles are more likely to become convinced that the leadership team is competent and worthy of funding if each member is very well versed in all facets of the firm. Additionally, as leadership members become involved in projects outside their realms of responsibility a sharing of contacts and social network ties might result as options are proposed for solutions to issues residing in the new venture. This leads to the second proposition:

> *Proposition 2: The use of organizational citizenship behaviors by entrepreneurial founding team members aids the process of communicating the positive attributes of the leadership team to external stakeholders and facilitates the sharing of information and social network ties, ultimately resulting in the minimization of novelty to management.*

Minimization of Novelty in Production

Novelty in production is related to knowledge related to processes and technologies residing within the new venture. Innovations and technologies that are often difficult to duplicate and understand are often the cornerstones of entrepreneurial efforts (Chandler, 1977; Dess & Beard, 1984; Henderson & Clark, 1990). Disseminating the knowledge related to innovations and new technologies utilized by new ventures within their organizational contexts poses an obvious challenge for new venture leaders (Nelson & Winter, 1982; Teece, 1996). Tactics aimed at ensuring that key organizational members are educated and trained on the use of innovative technologies linked to core competencies include organized training efforts, the establishment of formal organizational routines, and investment in efforts which result in the creation of dynamic capabilities.

During the infancy of a firm, only those members of the leadership team accustom to the technological and innovative nuances of the organization's procedures and products are likely to be aware of how complex mechanisms and procedures produce organizational products and services. The reliance on a limited number of enlightened and knowledgeable members poses as a burgeoning problem as the new venture continues to age and grow (Thompson, 1967).

The limited knowledge shared among the leaders of the firm will at times result in two specific uncertainties, one related to the actual production process and one related to inter-disciplinary processes and procedures linked to the firm's core technologies. First, uncertainty related to the production process must be overcome by the core production group, led by the individual responsible for production, if the product is to be offered in the market. Within this group (i.e. at the workgroup level) is where evidence has been reported that suggests OCBs are extremely important for organizational effectiveness (Podsakoff & MacKenzie, 1994; Podsakoff et al., 1997; MacKenzie et al., 1996; Walz & Niehoff, 1996). Additional, uncertainty related to inter-disciplinary processes ultimately leads to individuals not understanding why administrative and supporting roles and practices are necessary (e.g. uncertainties related to staffing and purchasing). Subsequently, instrumental processes within the organization linked to production and all other disciplines may prove to be understaffed, under-funded, unreliable, and possibly nonexistent.

Information dissemination is an important tactic tied to OCBs to be used to overcome problems linked to a limited knowledge of the production of products and services within a new venture. Proposed is that OCBs might be instrumental in ensuring complex and sometimes abstruse information is available when key decisions regarding the operations of the new venture

are made. Leaders placing themselves in positions and roles in which they work intimately with the products, technologies, and production processes are likely to each gain an understanding of why and how the firm's inputs, outputs, and processes mesh as components of the firm's value chain. Leaders who perform altruistic behaviors as well as acts of courtesy and civic virtue place themselves in pseudo-learning environments. Knowledge will be gained and information will subsequently be more easily diffused within the new venture as the leaders of the firm begin to manage support staffs, resulting in less uncertainty among the firm's disciplines. This leads to the third proposition:

> *Proposition 3: The use of organizational citizenship behaviors by entrepreneurial founding team members facilitates the diffusion of information related to the product offerings as well as production processes resulting in the minimization of novelty in production.*

Conclusion and a Future Research Agenda

These theoretical contentions are thought to parallel the likely experiences of many EFT members who have organized their efforts to combat the malevolent effects of newness. The overarching contention made is OCBs will have a moderating effect on the relationship between novelties associated with newness and new venture performance, thereby bolstering not just task internal EFT performance, but contextual performance as well. The relationships among the three constructs, organizational effectiveness, liability of newness, and OCBs, are expected to be ordinal in nature, where only positive organizational performance (i.e., effectiveness) will combine with OCB usage to minimize the individual dimensions of firm newness which have been discussed.

The contentions of the paper have very practical implications. Yet, only with further empirical testing will prescriptions derived from the aforementioned propositions be regarded as valid and worthy of recognition by practicing EFTs. In addition, future theoretical considerations utilizing Stinchcombe's (1965) school relationship approach to managing organizational newness seem warranted. OCBs are just one of many social and interpersonal behaviors EFT members will enact that may have indirect and direct effects on the minimization of the novelties associated with newness. Discussions of interpersonal behaviors and tactics such as impression management behaviors (Jones & Pittman, 1982; Nagy, Pollack, Rutherford, & Lohrke, 2012; Tedeschi & Melburg, 1984) and political skill behaviors (Baron & Markman, 2003; Ferris, Treadway, Kolodinsky, Hochwarter, Kacmar, Douglas, & Frink, 2005) in the context of nascent and start-up organizations will likely aid researchers and practitioners alike as they seek to understand and describe how specific behaviors enacted by EFTs can relate to organizational success in the new venture setting.

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SBI BEST PRACTICES

Using Internships to Increase the Impact of SBI Projects

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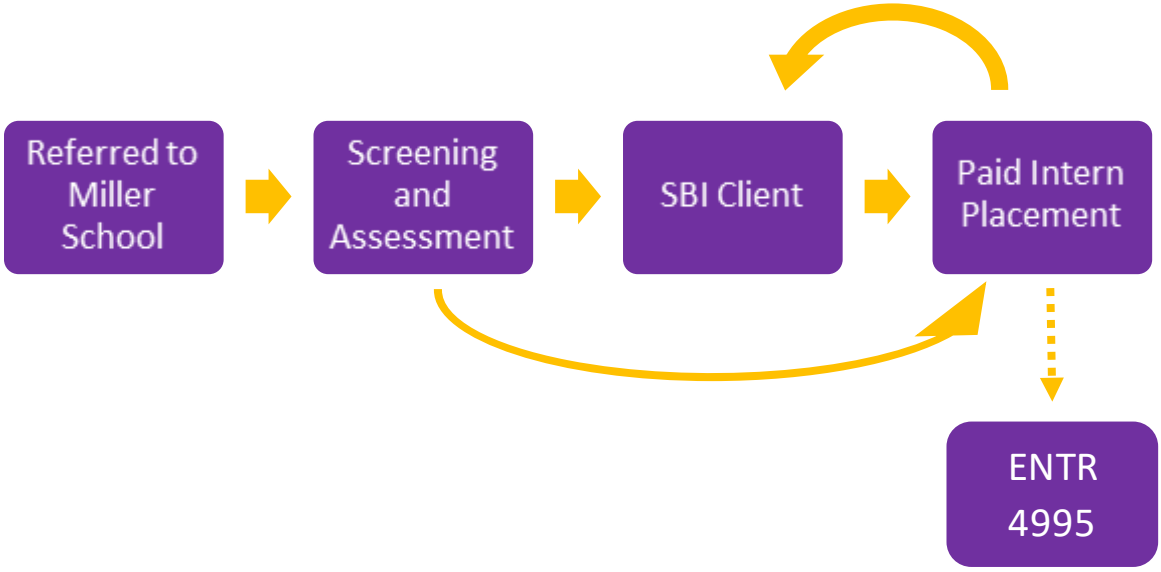
Accredited by the Association to Advance Collegiate Schools of Business (AACSB) since 1967, the East Carolina University (ECU) College of Business is the largest business school in North Carolina, with approximately 4200 undergraduate and 1000 graduate students. Housed in the College of Business, the Miller School of Entrepreneurship was established in 2015 and is the only named school of entrepreneurship in North Carolina. The Miller School serves as a regional hub for preparing students to take an entrepreneurial mindset and skillset into their communities. In addition to its unique entrepreneurship curriculum, the School links with key strategic partners to offer co-curricular programs that help serve as a catalyst for regional transformation. The goals of the Miller School are to attract innovative students and help them reach their entrepreneurial potential and assist with regional transformation through a comprehensive entrepreneurial ecosystem developed with key campus and regional partners. Through these partnerships, we hope to increase experiential learning opportunities for our students and to encourage interaction between the community and our students. We believe these student experiences are a driver for local economic development.

The Miller School and the Division of Research, Economic Development and Engagement at East Carolina University (ECU) received a $1 million award from the Golden LEAF Foundation to support rural economic prosperity through innovation and entrepreneurship. This grant supports ECU's recently launched university-wide program (RISE29) focused on supporting the current small business community and creating a new generation of business owners in the 29 counties of eastern North Carolina (ENC). The Golden LEAF grant supports and strengthens partnerships between ECU and the surrounding counties (i.e. partners). The partners will create a pipeline for SBI clients and project implementation. This helps solve the ongoing challenges with vetting clients (when your projects are primarily done for free) and ensuring implementation of SBI project recommendations.

RISE29 takes a holistic approach to job creation and retention in the state's eastern 29 county region – ECU's home base of operations that many university students, faculty and partners. Clients begin their journey in the program by connecting with the Miller School. During the initial screening process, projects are assessed to determine next step. This could include intern placement or selection as an SBI client. The process continues depending on how well clients understand their needs. Please see the model below for an overview of an example process.

Figure 1. RISE29 Onboarding Process



In addition to the SBI course, students involved in the RISE29 program are eligible to register for an internship course, ENTR 4995. All RISE29 internships are paid with the additional option of receiving three credit hours from the internship course. This "double benefit" allows the Miller School to attract a high caliber of students for the program. Below are some key takeaways from this Best Practice that will be shared all session attendees.

Key Takeaways

- Greater long-term impact for SBI projects, particularly in regards to implementation of recommendations
- Provides a follow-up process for SBI clients, which is often a missing piece in many programs
- Extends the relationship with SBI clients which may increase the likelihood of charitable giving
- Additional experiential learning opportunities (paid and/or for credit) for students
- More strategic client selection and onboarding process for the SBI program

Building Business Consultative Skills Through a Public Relations Lab

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Abstract

Public relations students at Metropolitan State University of Denver help real clients solve communication, media relations and digital media challenges through a PR Lab that is now in its fourth semester. This paper focuses on the elements of the program that help develop students' consultative skills. In the authors' experience, helping young learners take a partner-like role and assume a position of expertise is a higher-level outcome that requires intentional curriculum design.

Introduction

Public relations students at Metropolitan State University of Denver help real clients solve communication, media relations and digital media challenges through a PR Lab that is now in its third semester. The lab's two instructors who built the course relied on lessons learned in previous experiential learning efforts, and they continue to fine-tune it to ensure a rounded educational experience as well as quality PR products that benefit the client, many of whom are nonprofits or startups.

This paper focuses on the elements of the program that help develop students' consultative skills. The PR Lab seeks to achieve the multiple goals expected in service learning: applying knowledge to real-world situations, experiencing professional settings and burnishing resumes (Razzouk, Seitz and Rizkallah, 2003). In the authors' experience, helping young learners take a partner-like role and assume a position of expertise is a higher-level outcome that requires intentional curriculum design.

Problem statement

The authors discovered in interviews with PR industry hiring managers that new graduates need to have more "business sense." Entry-level practitioners need to know how to link public relations strategies to organizational goals, they said. Sandy and Holland (2006) found that experiential learning community partners expect a relationship with their student teams and that the students gain a better understanding of their work cultures and goals.

The PR Lab gives students a crash course in business terminology and culture, the markets and success measures as they perform client intake and research. This real-world exposure amplifies the business instruction provided in lecture-based classes. As they develop and deploy PR strategies and tactics, they continue to expand their understanding of the role of communication and PR in the organization's success.

But as learners, it is difficult for them to exert expertise and easily become order takers. In the authors' experience in experiential classes previous to the lab, they noted that students' first challenging lessons are about client relationships. Some clients were hard drivers who issued orders. Other clients lacked focus or an understanding of what they needed and were difficult to pin down.

In establishing the PR Lab, the authors sought a curriculum that provides resources, scaffolding, coaching and peer learning opportunities that develop business sense, relationship and consultative skills.

Resources and scaffolding

PR Lab students work in teams of three or four to service a client for the entire semester. Team members are selected by the instructors, as they would be in an agency environment. Thought is given to complementary skills, temperament and leadership abilities, but team dynamics cannot be predicted.

Instructors dedicate time early in the semester to team building, because teams that are confident in each other collaborate more effectively and thus are more productive. Handouts define typical agency roles, and reading assignments help them visualize agency hierarchies. They take an online team roles test (https://www.123test.com/team-roles-test/) and share the results. They are given worksheets to help them develop mutual accountabilities. They then select an account director who will coordinate their work, and they agree on each individual's prime responsibilities.

The teams are given templates for agendas, task tracking and time accounting. They are instructed to hold regular meetings with their clients and to follow each meeting with a task list. These templates eliminate the need to construct routine work practices, giving students more space for higher-order thinking.

Coaching

Each team reports to one of the instructors, who serves as the account supervisor. The instructor meets with the client before the semester to ensure the work is appropriate for the students and to manage expectations. The instructor also joins the team's first meeting with the client to observe interactions and follow up with coaching.

The instructor pays close attention to communication between the team and client, especially early in the semester. The supervisor reviews agendas and follow-up task lists before they are sent to the client. In the early stages, students tend to be inexact in their agendas and task lists. The supervisor helps them set clear agendas that will position them appropriately and helps them interpret and respond to clients' suggested changes. The supervisor emphasizes clear accountability and delivery dates in the task lists. Through experience, the students learn that such clarity puts them in a better position to have substantive conversations with the client when scope creeps or plans change.

During weekly meetings with the team, the instructor helps students identify and reflect on the lessons they have learned in their interaction with the client.

Peer learning

All teams come together once a week to do "stand-up" reports on the status of their work. Client relationship issues often come up during these sessions. Students are exposed to different types of clients, offer suggestions, and learn from other teams' successes and failures.

Students are not encouraged to specialize in activities, but to get involved with as many aspects of the project as possible. This allows students more opportunity to test their boundaries and to learn from peers (Razzouk, Seitz and Rizkallah, 2003).

The instructors observe interaction among team members and assess each member's contributions. Each team is unique and requires different types of guidance or intervention. The "real world" scenario competes with the reality of student life and the academic calendar. We have found, however, that students are more motivated to overcome difficult team dynamics when there is a real, paying customer to serve. Razzouk, Seitz and Rizkallah (2003) noted that this puts a higher level of "psychological taxation on students and causes them to deliver a higher quality product (p. 35)."

Conclusion

The authors are well aware that our graduates in entry-level jobs will not typically be running client relationships or leading strategic plan development as they do in the PR Lab. But student feedback indicates the lab has increased their self-confidence and given them a better sense of the work they will be doing.

"This class also helped to alleviate some of the anxiety I previously had about entering the industry. I am more confident in my skills as a result of service learning," one wrote. The course made one student "more excited for my career." Another survey respondent said, "The class challenged and shaped me to produce flawless deliverables to the client. It also grew my teamwork skills and professionalism."

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A Small Business Accounting Graduate Course

Letitia Meier Pleis, Metropolitan State University of Denver

INTRODUCTION

It is estimated that 75% of new businesses fail within three years. Some of the leading causes of start-ups not succeeding are related to accounting and tax issues (Cooper, 2018). Often the entrepreneur has an exciting idea and focuses on the product or service of the business, but has limited accounting and tax knowledge. In addition, many new startups are underfunded and look for ways to limit spending. Often this results in lack of spending on accounting software and accounting help.

To help address issues that small businesses have with accounting, I present a graduate level class that I developed to teach accounting students how to work with small businesses. The course includes an opportunity for student groups to work directly with a small business and a small business to receive valuable help.

THE COURSE

In the spring of 2012, I created a course on Small Business Accounting and Consulting for the Accounting Graduate program at Metropolitan State University of Denver. The goals of the class were to provide students with an understanding of the accounting needs of a small business and the opportunity to work with a real small business. The course covers six to eight weeks of needed basic skills training in order to work with a small business client and then the rest of the semester is spent working with small business clients.

Basic small business accounting needs are covered at the beginning of the course as well as developing the students' ability to explain complex accounting topics in manner that a non-accountant can understand. By the time the student reaches this class, they have the technical accounting skills down, but are not always able to approach them in a manner that would be helpful for a small business owner.

Instead of using an assigned text for the class, materials come from multiple sources mostly found online. One important objective of the class is to make the students aware that they might not know everything, but there are ways in finding the answer. They also learn that information changes often, so it is important to access updated source information regularly.

Each week student completes a writing assignment to demonstrate understanding of the topic as well as practice communication skills with a small business owner. In class each week, students discuss a group case/assignment. In addition, each student chooses a small business accounting book to read and review. The idea behind the book is to familiarize the student with the types of information that a small business owner might be accessing. It also provides a good opportunity to evaluate books that might be good to recommend to small business owners. The final task before working with the client is for the student to complete an exam over the topics covered. The exam includes a case of a small business with various accounting issues. While the technically side is not too complex, the idea is for the students to try to put various concepts together and provide the small business owner with various options.

TOPICS

Week 1	Introduction, Discussion on Small Business versus Micro, Discussion on the sharing/gig economy and the accountants role
Week 2	Business Formation, taxes, & reporting
Week 3	Budgeting & Cash Management
Week 4	Performance Measurement
Week 5	Cost Behavior and Cost Volume Profit Analysis
Week 6	Relevant costs and revenues in decision making
Week 7	Payroll and Accounting Software
Week 8	Running your own practice Book Discussion

*There are opportunities to combine topics if fewer weeks are available

CLIENTS

Over the last seven years, various clients have been part of this project. Many were just starting out, but this allowed the students to help the client address potential problems before they became real issues. Clients come from either the students own contacts, small business groups and associations, or from University alumni. In addition, I have developed a five-hour workshop for small business owners that covers many of the similar topics that I cover with the students. The business owners then have an opportunity to work with one of the student groups if they desire.

WORKING WITH CLIENTS

Students and clients complete the initial meeting on their own. All parties sign a confidentiality agreement and groups do not share client information with other groups. After the first meeting, student groups meet with me to discuss the scope of the project. Often students attempt to take on too much for a six-week project. The students are then required to write out a plan for the work they are going to complete. Students continue on their own working with the client for the remaining semester. Towards the end of the semester, students are required to meet with me again to make sure they have completed the project and are ready to present to the client. Students then schedule a meeting with the client and myself and present the work they completed. The work varies considerably between clients. Students provide written documentation to the client covering the project and provide a more detailed report to me about the project and the experience.

CONCLUSION

The students have expressed that while challenging the hands on experience has been valuable. Ideally, I would like to find additional input on how the course can be improved or suggestions from others that have similar student projects.

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The #UKYCEO Workout: Awakening the S.O.U.L. of Rural and Urban Entrepreneurship

Patrick Walker, University of Kentucky

The philosophy and the practice of entrepreneurship awakens many opportunities to explore diverse perspectives on how to empower rural and urban entrepreneurs who operate a business for profit as they navigate the complexities associated with Strategic, Operational, Uniformity and Legal risk. While entrepreneurs typically struggle with developing personnel, building financial capacity and deploying operational strategies, rural and urban entrepreneurs who have historically been underrepresented and marginalized face greater challenges to building a successful enterprise. To thrive in good markets and survive in tough times, rural and urban entrepreneurs require extensive access to financial resources and training in multiple areas of business. The #UKYCEO Workout was designed to engage entrepreneurs in the creation of opportunities that 1) explore diverse and historical perspectives in rural and urban communities, 2) provide collaborative entrepreneurial engagement opportunities that unite rural and urban business owners, 3) serve entrepreneurs in rural and urban communities by providing research and training that improves their knowledge and leadership acumen as CEOs and 4) develop a self-assessment strategy to increase effectiveness and efficiency throughout several dimensions of entrepreneurial platforms. The approach will be modeled after concepts introduced in the "GE Workout" by Jack Welch and by a Deloitte "Team Chemistry" study published in the Harvard Business Review.

Podcastrepreneurship 101

Mark Hagar, Cranfield University

Abstract

Integration of entrepreneurship education across the campus is an ambition that remains elusive for many universities.

Created as a means to integrate entrepreneurship across the campus of Indiana Tech, Podcastrepreneurship 101 presents an opportunity to introduce entrepreneurial concepts and tools in a student-centric activity featuring the elements of venture creation with an emphasis on aligning dynamic capabilities of the founder with the identified opportunities in the market.

Keywords: Entrepreneurship, Creativity, Podcasting

Introduction

Podcastrepreneurship 101 takes students on the entrepreneurial journey through the use of a podcast-specific business model canvas as students pursue the design, creation, distribution and monetization of a podcast.

The cross campus curriculum staff have, as part of their mandated duties, responsibility for introducing entrepreneurial concepts across the campus. The impetus of Podcastrepreneurship 101 is found in students who expressed an interest in starting podcasts as a student activity. This was seen as an opportunity to bring forth the basic concepts of venture creation and a business plan canvas was developed to aid in the development of a successful podcast.

While this activity is appropriate for use in entrepreneurship classes, it is also a very effective method of introducing the entrepreneurial process to students who may not (yet) realize their interest in entrepreneurship by interjecting the model where their interest lie.

The activity introduces a business model canvas allowing students to work through the process in a non-threatening way. Students work to identify their own dynamic capabilities, discover niche opportunities, define customers, and capitalize on their Unfair Advantage on their way to monetization.

Designed to be a quick, interactive effort where students offer insights and feedback to one another in an effort to narrow focus for best results.

Podcastrepreneurship 101 addresses many key concepts of entrepreneurship education including; venture creation, target markets, value creation and monetization, dynamic capabilities, market alignment and resource allocation.

SBDC BEST PRACTICES

Texas State NSF I-Corps Experiential Program

Jana Minifie, Texas State University
Jennifer Irvin, Texas State University
Bill Thompson, Texas State University

Abstract

The National science Foundation (NSF) Innovation Corps (I-Corps) is an experiential learning program to increase the success of university laboratory developments moving toward commercialization. Teams consist of an Entrepreneurial Lead (EL), a Technology Lead (TL), and Innovative Mentor (IM). At Texas State, the teams go through a 3-week "hands-on" program to determine a go or no go of the team's potential Intellectual Property (IP) business concept.

At the regional level, at least two members of the team must complete the program in order to be considered for the $3,000 NSF mini-grant. The teams normally will include the EL and the TL, with the EL being the research graduate assistant and the TL being the faculty member overseeing the laboratory. Many teams are missing the IM component. This is where the Small Business Development Center (SBDC) advisors play an important role.

By teaming with the SBDC, an advisor attends the 3-week program as one of the facilitators. The SBDC advisor is able to work with the teams during the 3-week program. At the end of the program, teams that reach a "go", continue to work with their SBDC advisor.

This partnership is in the initial stages at the Texas State I-Corps Site for Entrepreneurship. We will present the importance of an NSF I-Corps program for the innovation and entrepreneurship endeavors of a university along with how to best reach those who would qualify. A survey of I-Corps programs across the US was conducted. These results will be presented at the conference as well.

Aiding Small Businesses in Rural Idaho

Katie Toyoshima, Boise State University
Laura Mathews, Boise State University

Abstract

Since its conception in 1986, the Idaho Small Business Development Center (SBDC) has provided no-cost consulting, coaching, and training to Idaho's small businesses and entrepreneurs (Idaho SBDC, 2019). Idaho SBDC serves clients throughout the entire state using a network of six rinegional offices that are hosted by Idaho's colleges and universities (Idaho SBDC, 2019). This paper aims to highlight the SBDC's efforts and strategies to serve all small businesses in an overwhelmingly rural state.

Introduction

Idaho is a state that not many can understand unless they devote the time to drive across it. Idaho is extremely rural, in the sense that if you don't plan your gas stops correctly you may get stuck on the side of a country road, without cell service, and wait hours for the next person to come along. Statistically, rural Idaho makes up greater than 90% of the state's geographical area and comprises 37 of Idaho's 44 counties (Morrow, 2017). The few urban centers it has are connected by twisty mountain interstates and small two-lane highways that are flanked by rolling hills of sagebrush, timber or farmland. Rural Idaho is remote and has very few ways to travel in terms of major freeways. For instance, Electric Vehicle (EV) corridors are distinguished nationally and typically along major interstates, but in Idaho, concessions had to be made for highways due to the very few ways to get through the state.

In recent years, Idaho has experienced a unique and growing split between rural and urban communities in the midst of two phenomena: a steep rise in job creation & growth and the retirement of the baby boomer generation en mass (Tacke, 2016). Migration patterns show that working-age residents are leaving rural counties for cities (Mansfield, 2016). At the same time, retirement-age residents are moving into rural areas of the state, effectively stagnating population growth in rural communities but at the same time depleting the eligible workforce (Tacke, 2016). Exponential growth in job creation is seen almost entirely in Idaho's urban counties (Tacke, 2016). While urban counties are seeing a greater influx of young and educated workers in high-tech industries like robotics, the rural workforce in Idaho has become increasingly older, less educated, and is still heavily invested in traditional industries like mining, farming, and forestry (Tacke, 2016). With the depletion of their human resources by urban counties, the rural workforce has had to become more entrepreneurial, diverse, and is more likely to work in small businesses (Tacke, 2016).

The common factor shared by both Idaho's rural and urban communities is that small business employment consists of half of all employed people (Cicero, 2018). In Idaho, there is about one small business for every 11 people and over 99% of businesses are small businesses (Cicero, 2018). In addition to being Idaho's largest employer, about two-thirds of rural Idaho small business owners are dependent on the incomes of their small businesses for the majority of their

living expenses (Cicero, 2018). With this being said, the SBDC's services are more important now than ever before, especially in rural areas of the state.

Rural Consulting Requirements and Economic Impact

Under section 5.1.3, Statutorily Required Services of the SBA Funding Announcement, SBDCs are required to provide on a non-fee basis, one-on-one confidential consulting; technology transfer research and development; rural and export assistance (U.S. Small Business Administration Office of Small Business Development Centers, 2018). The majority of Idaho's population is in its urban hubs and while the SBDC strives to serve the entire state regardless of whether a client is urban or rural, rural areas are not specific primary focus areas. Urban clients create the bulk of our reported economic impact, but we are hopeful that SBDCs rural outreach helps businesses maintain during economic downturns and when large businesses leave their communities.

The Idaho SBDC has a track record of utilizing state and federal funds to deliver results for Idaho's economy and consistently achieves stakeholder requirements. Due to our stability, we have the opportunity to focus on rural needs. In order to better serve the rural population, additional resources are needed to effectively reach Idaho's rural areas.

In the last six years, on average, only 22% of Idaho SBDC clients have been located in rural counties. On average, rural consulting has only encompassed 19% of total consulting hours. Rural SBDC clients have accounted for 21% of all new business starts, 26% of all capital raised, 27% of all jobs created, and 27% of all sales in the past six years.

	2013	**2014**	**2015**	**2016**	**2017**	**2018**	**2019 (YTD)**
% of Rural Clients	23.12%	19.32%	21.65%	23.52%	22.66%	21.80%	22.18%
% of Total Rural Impact from all SBDC Clients							
Business Starts	33.82%	13.54%	24.10%	13.10%	16.50%	25.00%	21.21%
Capital Raised	12.90%	20.00%	13.55%	25.65%	30.67%	53.90%	24.69%
Jobs Created	27.30%	16.25%	19.95%	26.00%	45.80%	25.90%	26.60%
Sales Growth	17.93%	22.66%	32.82%	40.79%	25.75%	24.75%	18.62%

Considering how much of the state is rural, the percentage of rural clients that the SBDC serves is low in comparison. The state currently employs strategies to increase rural awareness, impact, and involvement with the SBDC and is planning to implement other strategies in the near future.

Rural Strategies

Marketing

Even with its strong track record of performance, under the current resources, the Idaho SBDC believes that it has not been able to increase these measures or its awareness in the rural community by a satisfiable amount. A recent study conducted by Cicero for the SBDC shows that only about half of all business owners in rural Idaho are aware of the Idaho SBDC and of

those who know of the center, just over half are aware of the specific services offered by the Idaho SBDC (Cicero, 2018). The SBDC has previously hired external marketing firms in order to create marketing and messaging guides that are aimed at securing more rural customers. With limited success in those endeavors, as of last year, the state office hired a part-time marketing director, in order to improve SBDC awareness in both rural and urban areas. With this new addition to its team, the state office hopes to specifically increase the influx of rural clients served by the SBDC and extend the reach of its services.

Distributed Staffing Models

Idaho SBDC has two regional offices that have a distributed staffing model, whereby business consultants are either remotely located in rural areas or travel to rural areas to consult. The two regional offices that employ this staffing model are located in Coeur d'Alene and Lewiston. Both regions are overwhelmingly rural with urban centers that nationally speaking would be considered rural. The north and north-central regions using the distributed staffing model have small budgets and work on a reduced amount of staffing.

This approach has allowed the SBDC consultants to be more responsive to the needs of local companies, build stronger community relationships, and deliver quality consulting. Almost all of these rural consultants have deep-rooted ties to their communities; they've grown up there, raised a family there, owned a prominent business there or are involved with their county's myriad of different network partners. In either region, it's mandatory that consultants not only have the technical know-how and industry knowledge but that they truly care about the community in and around where they work. In interviews with both directors, they stressed that community one of the most important factors when working with rural regions of Idaho.

Not only do the two directors recruit consultants for community ties, but they also rely on communities for marketing purposes. In both regions, word of mouth and personal referrals are the largest referrers. Last year, 30% of electronic Requests for Counseling came from these sources. Each director leverages network partners and community leaders who champion the SBDC. These individuals and companies are crucial to the inflow of new clients and ultimately pivotal to the survival of small towns. On occasion, network partners become consultants for our regional offices. As of September 2019, three of our part-time rural consultants are community leaders and Economic Development Corporation Directors in their respective areas.

Conclusion

As rural Idaho's workforce becomes even more depleted, it is of utmost importance that the SBDC continues to try to reach out and assist rural small businesses with the limited resources they have in order to revitalize the economies in those areas of the state. By using effective marketing and leveraging community leaders, the SBDC has and will continue to help staunch rural flight and simultaneously help educate the rural community. Increasing the number of rural consultants and furthering our marketing efforts will allow for the SBDC's services to hopefully become more accessible to our rural population. Currently, the Idaho SBDC is seeking to expand the distributed staffing approach in additional rural areas but cannot do so without the proper funding. This is a call to action - we cannot uplift rural Idaho to its full potential without more assistance from our communities and our government.

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The Center for Business Ingenuity: Fostering Entrepreneurship by Combining Academic Programs and Entrepreneurial Resources under One Roof

Margaret Horne, Gannon University SBDC
Richard Makowski, Gannon University SBDC

From a classroom project to a company that operates in multiple cities with reoccurring revenues; this is the story of several businesses that started in the entrepreneurial center at Gannon University called the Center for Business Ingenuity (CBI). In one single building the Center combines four entities:

• Classrooms and faculty offices for the College of Engineering and Business

• One of nearly 1000 Small Business Development Center offices nationally. The SBDCs provide entrepreneurs with assistance in almost any area of business

• The Erie Technology Incubator (ETI) which provides start-up companies with an affordable physical location, mentor teams and administrative services

• One of four nodes of the Innovation Beehive Network; a collaboration of four universities in the county that provides hands-on assistance for entrepreneurs in the areas of business planning, market research, branding, and prototyping

By housing these entities in the same building, Gannon University has created a nurturing environment for start-up companies and small businesses while also providing invaluable experience to the business and engineering students. To understand the unique environment within the CBI, it is best to follow a student-run company and learn how they managed to turn a classroom project into an operating business.

Gannon University combines the engineering and business in one college. This allows for collaboration on projects between business and engineering students. One class is targeting this exact collaboration. ENTR410: New Venture Creation teams up business and engineering seniors and challenges them to come up with a new business idea. The academic environment creates the opportunity to begin the path to business ownership. For our company, which chose to continue on, the SBDC offered education outside of the classroom through one-on-one consulting or various workshops and seminars. As the launch of the company approached, the ETI offered residency, provided mentoring from industry experts, and administrative support.

The SBDC consultants serve as coordinators between the different entities – many of which are located in the same physical location. For instance, if our company is in need of hands-on assistance, the Innovation Beehive Network and the Faculty helps out. The Beehive with its connection to other nodes can assist them with in-depth market research, marketing, branding, and the development of prototypes. Similarly, if they are willing to engage with student-teams, they can expect undergraduate and graduate level classes to work on projects for their company. This does not only benefit our company, but provides invaluable real world experience to the

students as well. Students that excel in these kinds of projects, often find themselves being offered internships or jobs at the companies they worked with in their classes.

If hands-on assistance, mentorship, or consulting does no longer help, our start-up company is in need of capital infusion. Maneuvering through the myriad of funding options is made smoother by being connected with the entrepreneurial resources offered in the region and beyond. The connections with resources outside of CBI open up the opportunities to pursue funding with business plan, presentation and pitch deck development provided by the internal partners.

Benefits/Resources: The University created the environment that allowed the creativity and innovation necessary to support business launches. The students gained skills and capabilities that position them to be competitive in their career beyond graduation. The academic curriculum is enhanced through connecting the real world with the classroom. The mentors developed not only the entrepreneur but also gained self-satisfaction and fulfilled their desire to give back. The local, state and federal funding institutions fulfill their obligation to support entrepreneurial ventures. The SBDC fulfilled their mission to assist entrepreneurs as well as supporting their resource partners.

INNOVATIVE EDUCATION, TEACHING AND PEDAGOGY

Encouraging students to vote: A cross-disciplinary class project.

Debra Sea, Bemidji State University

Objectives:

- Increase the number of students who vote in the midterm elections.
- Teach students how to become more informed voters.
- Students will analyze campaign issues that matter to them.
- Students will synthesize results and will create and deliver presentations to their peers.

Background

Elections are important and they have consequences. Last summer while in Europe with my students, the topic of elections came up and most of my students said that they did not vote in the 2016 election. When the European students asked the American students why they did not vote, they gave a variety of answers. Based on their answers, I designed and implemented a nonpartisan election project for one of my courses. The project was successful and I realized that this project could be used in many different disciplines.

I discovered after the 2016 election that it is not enough to just tell students to vote. Many students do not understand how to do the research needed so that they can participate meaningfully in our democracy. In addition, many students are intimidated by the voting process. They are afraid they will do something wrong. In this project, students learn how to research, summarize and present issues that they care about. In addition, a mock election using the actual ballot helps diminish their fears about the voting process.

Method

For my course, the following methodology was used. First, anonymous polls using www.polleverywhere.com were conducted. Here are the questions and the results.

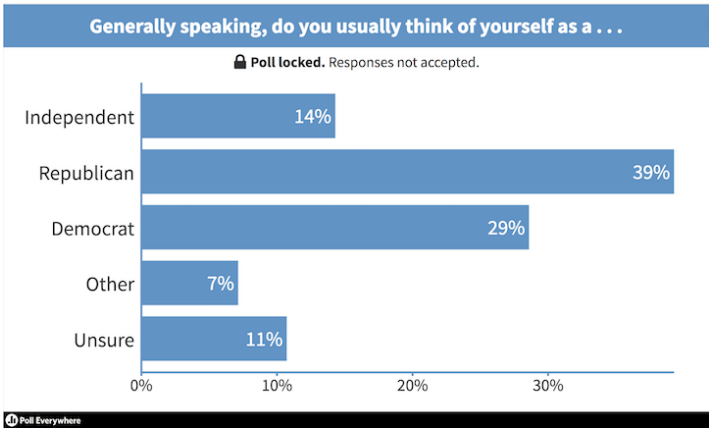


Figure 1. Party affiliation. Sample size = 28 students.

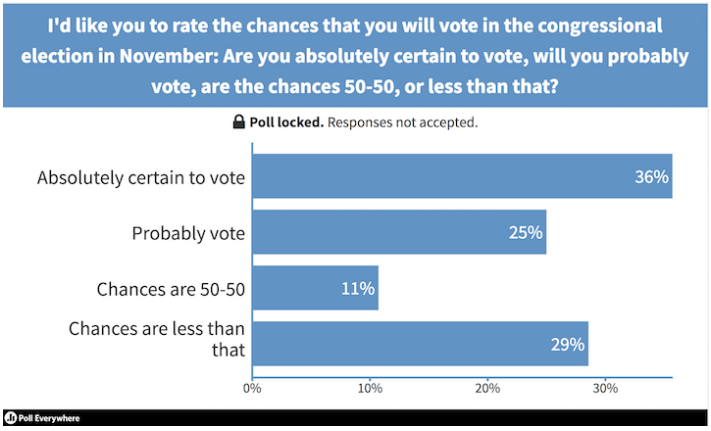


Figure 2. Chances you will vote results. Sample size = 28 students. (Ten students are absolutely certain that they will vote.)

It is not surprising that many students self-identified as Republicans (39%). We are located in rural Minnesota, which has traditionally been very conservative.

Slightly more than 1/3 of the students said that were absolutely certain to vote with 40% stating that the chances were 50-50 or less than that. Engaging students in the issues they care about is crucial to increase this number.

Students voted to determine the issues they care about eh most. Here are the results using the Polleverywhere.com Word Cloud format:

Figure 3. Word Cloud - issues students care about.

Five issues emerged from this process. They were:

1. Human rights
2. Environment
3. Healthcare
4. Abortion
5. Gun rights

Human rights is a broad category. I asked the students were asked to vote again. Here are the results:

Figure 5. Word Cloud to define human rights.

Here are the final five issues the students chose to research:

1. Equality – defined any way the students want to define.
2. Environment
3. Healthcare
4. Abortion
5. Gun rights

Six election races were chosen and students working in small teams selected a candidate's name out of a hat. Only the top two candidates were analyzed – one Republican and one Democrat. Here are the election races we analyzed:

- U.S. Senator
- U.S. Senator Special
- U.S. Representative District 7
- MN Governor/Lt. Governor
- MN State Representative District 5A
- Bemidji Mayor

Student teams researched the candidates position on each of the five issues and the candidate social media feeds. They presented this analysis to the class. Here is an example of one of the presentations:

Figure 6. Example of one of the student presentations.

A mock election was held with the same ballot used in the election. The mock election results were presented to the class and www.polleverywhere.com was used to poll the students after the project was complete. The results of the poll are discussed in the section below.

Results:

Three questions were asked about voting and this project. Here are the results of the polls:

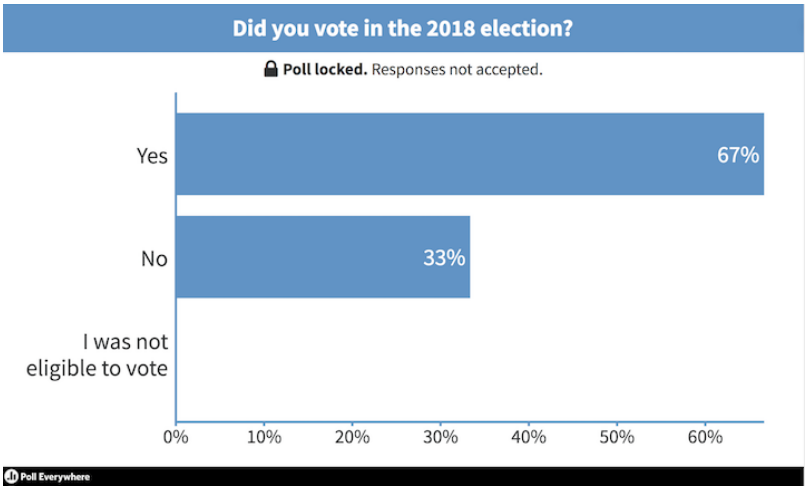


Figure 7. Results: Did you vote? Sample size is 24. 16 students voted

(6 more than said they were certain to vote in the pre-election poll).

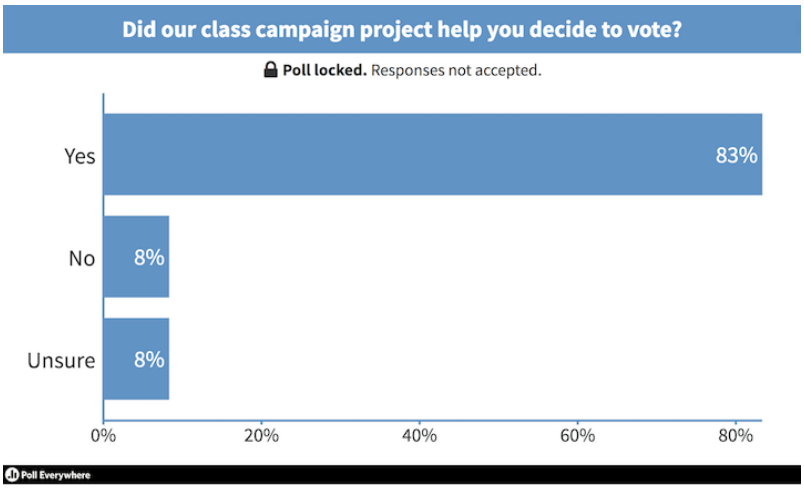


Figure 8. Results: Project helped decide to vote. Sample size 24. 19 said it helped them decide to vote (But only 16 voted!)

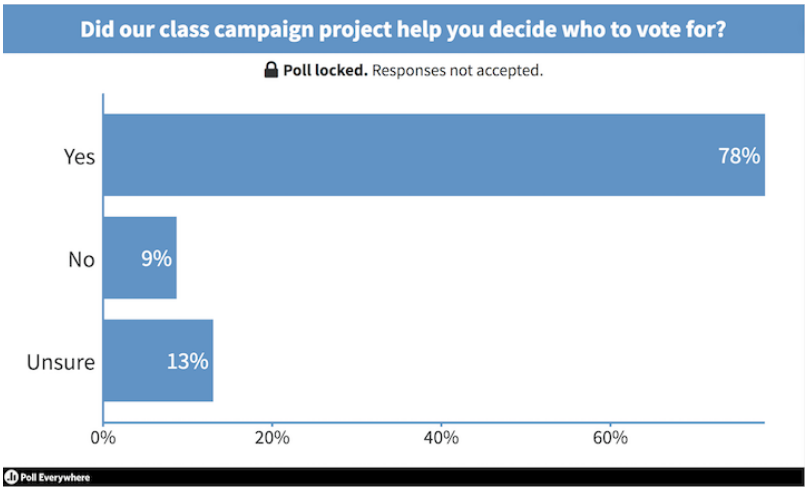
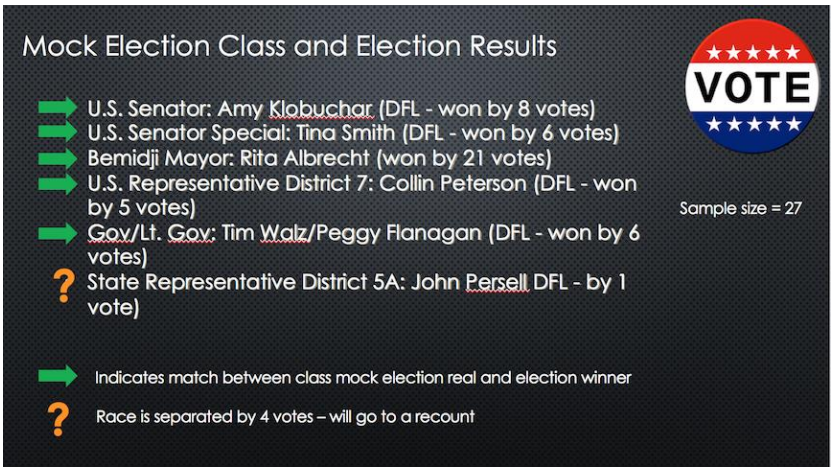


Figure 9. Results: Project helped who to vote for. Sample size 23. 18 said it helped them decide who to vote for.

Here is a slide that describes the results:



Discussion

The first objective of this assignment is to increase the number of voters in the midterm elections. According to the student before and after poll, sixteen students voted in the midterms, while only ten said they were certain to vote. This is a very small sample size, but an increase of even six votes can make a difference. The MN Rep. District 5A race was close (4 votes) and it may have been their six votes that made the difference.

The next objective was to teach students how to become more informed voters. One possible way to measure informed voting is to examine the ballots split between parties. For this mock election, many of the ballots were split between parties. This indicates that the students voted based on the candidate and not the party. This is a good indication of informed voting. Another measure to ask the students if this project helped them decide who to vote for. Seventy-eight percent of the students (18 students) said that this project helped them decide who to vote for.

Conclusion

Two objectives of the assignment -- increase the number of students who vote and teach students to become more informed voters were accomplished. In my opinion, it is not enough to just tell students to vote, as faculty we must engage them in the process. I believe that this project could be used in almost every class – students could select issues that are relevant to the class. I will continue to look for opportunities to engage my students in my classes for the 2020 election.

SBI Innovative Pedagogy session

I will lead the group through a shortened process – we'll quickly select a few issues that we care about. Participants will break into small groups and present the results to the group and then we will vote.

Virtual teams in an applied learning environment:
Innovative processes to help faculty facilitate virtual teams and lessen the drama load

Angie Kovarik, Bemidji State University
Whitney Peake, Western Kentucky University

For those who teach online classes, virtual teams are often a dreaded necessity. Pedagogy research indicates students in online environments benefit from the collaborative effects of virtual teams (Razmerita and Kirchner, 2019) and organizational research suggests that virtual teams are an ever-present reality in the current work environment (Ford, Piccolo, and Ford, 2017; Marlow, Lacerenza, and Salas, 2017). Facilitating online teams for online coursework, and managing those teams, however, can be cumbersome and nebulous for faculty (Razmerita and Kirchner, 2019).

Research related to virtual teams in organizations suggest that trust is a key component of healthy virtual team functioning, and that trust is facilitated through clear policies and procedures, unambiguous tasks, roles, and accountability, and providing suitable technology and support (Ford et al., 2017). Despite our knowledge in this area, it is often difficult for faculty to design a course that effectively utilizes collaboration in online formats. As part of this innovative teaching and pedagogy session, we will delve into virtual teamwork innovations in two university settings, provide best practices for implementing virtual teams in such environments, and supply attendees with example materials to implement these practices into his/her own classroom.

The development of trusting relationships is often difficult in virtual team settings. Chang (2018) recommends creating video introductions and a shared monthly blog as tools for building a sense of community in the course. The use of a semester long project may also contribute to the sense of community in a virtual environment. Chang discovered that peer review and learning provided an increase in virtual team satisfaction. The use of assignments where there were multiple tasks made it easier for teams to equally distribute the workload and decrease the free-rider phenomenon (Chang, 2018).

According to Saghafian and O'Neil (2017), there is a correlation between online student dropout rates and low student interaction in online classes. The use of virtual teams creates a degree of social interaction for students that they might otherwise lack in an online classroom. Some factors to consider when online groups are formed is clearly stating goals and rules, determining how workload might be distributed equally, and forming clear communication patterns early in the semester.

The course instructor also plays an important role in the success of virtual teams. Makani et. al. (2016) stated that the instructor must create interaction among the students, as well as student to faculty interaction. Prompt and regular feedback are important when encouraging collaboration among teams. The instructor's attitude should be supportive and foster a team-centered culture, which leads to enhanced participation and engagement.

Basic entrepreneurship is often a project-based course, which is no exception at Western Kentucky University. Dr. Whitney Peake is an instructor and program coordinator for entrepreneurship, and facilitates online group feasibility analyses for her students as part of the course. She will detail the processes for student video introductions that build trust, use of discussion boards to assist with team formation, prompts for important group-work questions, assignment parameters that facilitate teamwork in an online environment, student collaboration tools, as well as key peer evaluation considerations for assessing online teamwork.

Dr. Angie Kovarik is an Assistant Professor of Business Administration at Bemidji State University. She facilitates a semester long group project in her online marketing courses where groups of students remain on the same team for the duration of the semester. Dr. Kovarik will discuss the use of team contracts to establish clear guidelines, transparency expectations among faculty and group members, how group evaluations are used to monitor progress, and how to handle the inevitable group conflict in order to create a positive virtual group experience for online students.

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Short Learning Programs: A Path to Alternative Credentials, New Curricula, Master's Program Promotion and Alternate Revenue Streams

Melissa Brode, University of West Florida
Wendy Funes, University of West Florida

Short Learning Programs (SLP) are a series of discipline specific graduate level courses that when packaged together provide participants with a credential to demonstrate their subject expertise (Williams, 2019). Often viewed as a bridge between undergraduate and formal graduate degree education, SLPs give participants an opportunity to demonstrate to employers their advanced, post-bachelor degree expertise- without the full commitment of a master's degree (Williams, 2019). SLPs can provide different stakeholders with opportunities including: students who can capitalize on SLPs as an alternate credential for career development, faculty as a tool to provide a more nimble response to quickly changing industry needs, and colleges as a pathway to increase enrollment in master's programs as well as for the creation of an alternate revenue stream to provide supplemental funding.

SLPs derived from bundling a series of Massively Open Online Courses (MOOCs) to form a credential for career advancement. MOOCs gave free, unlimited, and open access to a variety of online courses for users to grow their knowledge base on their own schedule with on-demand enrollment (Pappano, 2014). Upon completion of the MOOC requirements, participants will receive a certificate as a credential of their knowledge.

As MOOCs evolved, organizations looked for ways to expand offerings--as a result, in 2014, Udacity a for-profit educational organization launched its Programming Nanodegree in conjunction with AT&T (Porter, 2014; Yang, 2013). This MOOC-like program had a nominal fee and was designed to create a pipeline of qualified prospective employees for AT&T who were prepared for an entry level IT position with them (Porter, 2014). MicroMasters by edX began in 2016 as a global non-profit collaboration between Harvard and MIT (MIT News, 2016). Taking a different approach, edX partnered with major industry players (e.g. GE, Microsoft, Walmart) and 14 different universities to expand the MOOC concept into a mini graduate level credential. Using the MOOC framework allowed edX to design a plan for students to enter the MicroMasters on demand and work to receive a relatively quick, affordable credential (Schaffhauser, 2019).

One key to Nanodegrees and MiniMasters is that because they are built on the MOOC ideal of being free and non-credit. For both programs, students have to pay and take assessments to receive the verified credential. MiniMasters however, also have a path for students to receive graduate academic credit towards a master's degree at one of the participating institutions upon admission to the specified degree program (MIT News, 2016).

Universities can employ SLPs in several ways to meet an array of opportunities. First, post bachelor degree students who may not be ready for graduate school need credentials to show their expertise on current topics and trends (Williams, 2019). SLPs provide a fast, flexible, and affordable career credential with completion times of three-six months, with costs ranging

from $800 to $1400, and with on-demand or multiple per year starts (Strategic HR, 2019). For faculty, creating an SLP provides a platform to develop curricula around emerging topics. While the timing may be premature for the adoption of the topic for a degree, SLPs allow for the idea to be incubated and evaluated for later induction into the university's formal curriculum. Next, SLPs create a pipeline of prospective students who are incentivized at the prospect of receiving academic credit toward their master's degree. Most SLPs award between 3-9 credit hours depending on the setup (Gallagher, 2019). A trend that is growing support is stacking SLPs in a designed manner allowing the participant to complete a full master's degree. These potential students likely would not dive directly into starting a master's degree but with the non-credit to credit path decide to begin (Lieberman, 2018). Lastly, at a time when funding, especially for public institutions, is dwindling-- the creation of alternate revenue streams is critical for universities to continue their missions. SLPs are traditionally ran as non-credit, continuing education programs which are self-funded. Consequently, universities keep monies above costs and can reinvest the dollars into areas where budget allocations are low.

The presentation will center on the advantages of creating a Short Learning Program to the different university stakeholders. In addition, best practices for developing SLPs will be shared. Last, some of the common pitfalls and impediments will be discussed.

An Integrative Approach to Entrepreneurship Education: The Case of Froggy Wines

Danhong Chen, Sam Houston State University

Abstract

Startup's share of all businesses in the U.S. has declined over the past few decades. With the goal of enhancing survival and growth of agribusiness startups, this paper describes an integrative, experiential learning approach implemented in an agribusiness entrepreneurship class. To assist students in developing a feasible and viable business plan, we involve multiple stakeholders including faculty members, university administrators, funding agencies, governmental agencies, and entrepreneurs in the real-world context. We use a newly developed local small agribusiness, Froggy Wines, as a case to illustrate the integrative experiential learning experience. Students conduct feasibility study of the winery industry before visiting Froggy Wines where they observe business management practices and interact with the entrepreneur. Experience from the field trip reinforces knowledge acquired in class and informs students' business plans. Students also get institutional support and have the opportunity of communicating with funding agencies and SBDC. The instructor helps them build connections between entrepreneurial knowledge and practices. Students' learning occurs through their interactions with the entire environment and community.

Summary

Latest data from the Census Bureau's Business Dynamics Statistics indicated that 433,192 startups were created in the U.S. in 2016. Startup's share of all businesses has fallen from over 16% in the 1970s to approximately 9% of all firms in 2016, and it has remained at this level in recent years. According to the Office of Advocacy of the U.S. Small Business Administration, approximately half of the nation's new businesses survive after 5 years of operation, and about a third of startups survive after 10 years. Entrepreneurial education is one of the factors that has fueled the development and growth of startup firms. The overarching goal of this agribusiness entrepreneurship class is to enhance small agribusiness survival and growth via an integrative training program.

Entrepreneurship education has gradually moved away from passive learning in the form of lectures to an integrative approach that encompasses multiple stakeholders including students, faculty members, university administrators, funding agencies, governmental agencies, and entrepreneurs in the real-world context (Dhliwayo 2008). Meanwhile, experiential learning activities are incorporated in the course to establish connections between theories and practices in entrepreneurship, and to enhance problem-solving skills and creativity among students. Experiential learning is a process in which students build knowledge through immersing in an experience, and creating reflections, critical thinking, and actions (Politis 2005). *We use a newly developed local small agribusiness, Froggy Wines, as a case to illustrate the integrative experiential learning experience offered in an agribusiness entrepreneurship class.*

Students. Through an entrepreneurial self-assessment activity, we identify the students with an aptitude for entrepreneurial endeavors and cultivate their behaviors and competencies in this regard. Prior to taking this entrepreneurship class, students are required to take an agribusiness management class that instills in students a comprehensive understanding of four functional areas of management including operations, finance, marketing, and human resource management. In addition, students learn how to recognize and act on market opportunities (Politis 2005). They are required to conduct a feasibility study on the industry and startup prior to a field trip.

The Texas winery industry has expanded quickly over the past few years. According to the County Business Patterns by the US census, the number of winery establishments in Texas increased from 102 in 2012 to 143 in 2016, with small wineries employing 1 to 4 people accounting for approximately half of all the establishments. The expansion was partially driven by the increasing demand for wines. U.S. households on average spent around $445 on alcoholic beverages in 2013, which rose to $558 in 2017. In particular, consumers have a growing interest in wines over beer/liquor, and Texans are especially interested in wines made locally. It was estimated by IBISWorld that the total revenue for the winery industry in Texas boasted around $75.9 million in 2017, with an annual growth rate of 7.6% over the past five years. The wine industry in Texas is in the growth stage of its life cycle and it was projected that the industry will continue to grow in the years to come. The current concentration ratio in the Texas wine industry is low, with the top four companies contributing to less than 20% of the total revenues in the industry. This has created opportunities for small wineries to enter the industry at this stage.

Faculty members. Instructors impart entrepreneurial knowledge, theories, and principles of management in class. As the liaison between academic institute and external partners, instructors also provide guidance on how to apply entrepreneurial and management knowledge into practices. They guide the students through the development of a feasibility study, a business plan, and reflections on field trips.

University administrators. The university has an Academic Community Engagement (ACE) initiative that encourages students to apply their knowledge and skills acquired in class to the development of partnerships with organizations in the community, with the mission of making a positive impact on the society. ACE has been found to be associated with better academic performance, writing skills, critical thinking skills, dedication to community service, and leadership capability.

Funding agencies. Business loan officers are invited to talk about the documentation required for a business loan as well as the keys in securing funding for a startup. Students are encouraged to explore the guaranteed loan programs offered by the Small Business Administration. We also plan to invite other funding agencies such as angels and venture capitalists to give a talk in class.

Rather than relying on external funding such as angel and venture capital investors, Froggy Wines was a company entirely funded by the savings of the entrepreneurs, resembling the practice of a large, publically traded zero-debt agribusiness company: Sanderson Farms Inc.

Governmental agencies. The local Small Business Development Center (SBDC) hosts a workshop for the students in this class each semester. The business advisor gives the students an overview of the services provided by SBDC. Many students indicated in their report that they had never heard about SBDC until this class, and would definitely utilize its services for their startups.

Entrepreneurs. Through personal contacts with business owners, students learn the personal traits as well as other characteristics, skills, and behaviors of entrepreneurs. They are given the opportunity of observing business management practices during the field trips.

Dr. Henriksen is a professor of Counselor Education at the university. He and his wife started Froggy Wines in 2013 after 17 years of pursuing winemaking as a hobby. Before starting the business, he went to school for two years and got a certificate in Viticulture and Enology from Grayson College. He is enthusiastic about cultivating the next-generation entrepreneurs and making a positive impact on the community. During field trips to Froggy Wines, Dr. Henriksen talks about the company history, the steps in starting a winery, financial management, operation details, and marketing practices. In the reflections on this field trip, students were amazed by how Froggy Wines was able to make a profit in just five years. They were able to relate the business practices with the strategic management principles discussed in class. In particular, students were impressed by the low-debt approach as a survival strategy for the business. They also discussed the role of direct marketing as a bootstrap marketing strategy for a small winery. Consequently, those management strategies were incorporated into students' own business plans.

Most students enrolled in this class are seniors who have already acquired agribusiness management knowledge in various functional areas. This class intends to facilitate the process of translating academic knowledge into real-world application. In addition to conventional methods of pedagogy such as lectures and case studies, we take an integrative approach that involves multiple stakeholders. Students' learning occurs through their interactions with the entire environment and community.

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Is There a “Best” Amount of Planning? A Discussion and Research Review

Peter Thorsson, Palo Alto Software

Abstract

The very concept of “planning” has weathered tremendous debate, especially in recent years, resulting in some confusion about the most current and measurable best practices. In fact, the answer is simple in concept but nuanced in execution: there is a “correct amount” of planning for any entrepreneur, at any stage, in any industry. But for those who want to take advantage, how can a class or program possibly accommodate the seemingly infinite variety of cases? In this session we will share and discuss findings from teaching and mentoring experiences—alongside study results and anecdotes —to outline how we can include these best practices, either in a single course or spread across an entire program.

Keywords: Business Plans, Lean Planning, Financial forecasting, break-even analysis, hiring employees, payroll,

Description of Idea

Session outline includes:

-- History of Planning and Entrepreneurial pedagogy of the business plan and financial forecasts - from "old school" long-form to exclusively Lean Methodology.

-- The Evolution of Planning - An examination of what types of plans are actually used in contemporary applications, from banks to incubators

-- The trouble with "the real world"

- Where do the theoretical best practices encounter problems in the classroom, or in execution?

- How can the center use the trepidation or inexperience of entrepreneurs to accelerate, rather than avoid, key forecasting concepts?

-- Activity: Build Sample Course and Program outlines that benefit from this approach - including results and evidence from current programs

What are you looking for from the audience?

Active participation; efficient story-telling from classroom experiences; any self-published or unreferenced research to add to the discussion.

WORKSHOPS

Expert Journal Reviewing

William McDowell, Bradley University
Raj Mahto, University of New Mexico

This workshop will focus on best practices for journal reviewing. While a great deal of attention for academics focuses on academic publishing, reviewing for journals can be beneficial by allowing you to:

- Contribute to the wider academic community
- Build your own career and profile
- Develop knowledge, expertise and competency, and
- Enhance your career through potential Best Reviewer awards, being asked to serve on journal editorial boards, and assuming journal editorship positions.

This workshop will focus on the practices and values for journal reviewing, discuss the importance of reviewing, identify the best and worst practices for journal reviewing, and discuss effective engagement with journal reviewing through practical discussion and hands on learning exercises.

Promoting Diversity and Inclusiveness across Entrepreneurship to Celebrate Transformative Change in Communities

Dr. Kathleen Liang, North Carolina Agricultural and Technical State University

Abstract
This workshop targets on scholars and Small Business Development Center staff to engage, lead, stimulate, and motivate learnings and discussions of diversity and inclusiveness across stakeholders in different communities. We will explore and investigate purposes, rationale, significance, and linkages of entrepreneurship and small business concepts to diversity and inclusiveness issues. We will highlight and jointly share challenges and barriers, as well as best practices in diversity and inclusiveness strategies. Finally, workshop participants will participate in a dynamic mind-mapping exercise to design and develop your initiatives to celebrate diversity and inclusiveness based on your community's need.

Workshop Descriptive
Diversity and inclusiveness have become critical issues in the workplace and at home. Scholars in entrepreneurship and small business fields often face challenges to communicate the importance of diversity and inclusiveness to stakeholders and community partners. Most of funding agencies such as National Institute of Health (NIH), National Science Foundation (NSF), and US Department of Agriculture (USDA) require creative concepts proposed by interdisciplinary teams that involve or improve diversity and inclusiveness within the research domain. However, sometimes it is difficult to start a dialog due to lack of understanding or awareness of definitions, contexts, perspectives, values, and concerns. There are tremendous opportunities to integrate diversity and inclusiveness into entrepreneurship and small business. The only question is – how do we present the issues to create transformative change?
This workshop will support an open dialog for participants to share questions, concerns, issues, and winning strategies to introduce diversity and inclusiveness into initiatives or programs. We will focus on the following perspectives:

- Understand diversity and inclusiveness leading to equity in entrepreneurship and small business.
- Identify gaps in achieving and supporting diversity and inclusiveness in a system approach - how would everything tie to community issues associated with entrepreneurship and small business?
- Broaden our views through limited options – create new opportunities for an equitable future.

The unique element of this workshop is to use a dynamic mind-mapping exercise to demonstrate how we could engage, lead, and communicate with our stakeholders. The dynamic mind-mapping exercise was created by the workshop facilitator while teaching entrepreneurship and working with a variety of community partners/individuals/families. Here is a summarized step-by-step process to describe the mind-mapping exercise, and the workshop facilitator will introduce various diversity and inclusiveness scenarios into each step:

- **Step 1 – individual reflection**
- **Step 2 – sharing in 30 seconds with a partner**
- **Step 3 – finding similarity and difference (brainstorm an idea)**
- **Step 4 – converting the idea into reality and share with the group**
- **Step 5 – finding similarity and difference across teams**
- **Step 6 – combining ideas and transform into new opportunities**

We will highlight and explain specific strategies – what works, and what not in each step. Workshop participants will gain a refreshing and helpful experience to interact in a simulated environment. The most rewarding experience will be learning from each other.

Workshop Schedule (90 minutes)

Introduction and ice-breaking exercise (15 minutes)

Definition and Q&A (30 minutes)

Nature of diversity and inclusiveness

Team building

Working together

What we know versus what we do not know

Dynamic mind-mapping exercise (30 minutes)

Reflections and discussions (15 minutes)

The workshop facilitator has 20+ years of experiences in leading interdisciplinary teams for research, teaching, and outreach programs. She has served on several grant review panels, as well as numerous advisory boards. She has received significant grants from Kellogg Foundation, USDA, NSF, and other organizations as a Lead Principal Investigator, Co-Principal Investigator, and Collaborator. She has served more than 40,000 stakeholders and community organizations across different demographic profiles. Her most recent programs include: an NSF grant to build transformative dynamic modeling systems to examine linkages between human systems and nature systems within food deserts; farm labor management decisions and practices transitioning from hand tools to machinery funded by USDA; farm enterprise financial analysis to create sustainability for mixed organic vegetable operations among small and limited-resourced farmers funded by USDA; and racial equity issues within food systems to tackle food insecurity issues.

2019-2020 Human Resource Update for Small Business and Entrepreneurs

John Hendon, University of Arkansas Little Rock
LeAnne Coder, Western Kentucky University
Timothy Dunne, Boise State Univers**i**ty

Abstract
This workshop will consist of a group of invited panelists who will discuss the changes in Human Resource Management (HRM) practices that have occurred in the past year. HRM continues to change at a rapid rate, due in part to changes in the executive branch of the federal government, with a number of changes occurring in the definitions of protected class individuals. There are also continuing changes in the health care landscape, recruiting and selection processes, and many other issues. Each of these issues has the potential to affect small businesses as well as larger corporations, but most small business owners and managers do not have good operational knowledge of them. This workshop will brief conference participants concerning the topics that consulting clients need to be made aware of.

The Program
The program will be broken down into discussion of federal agencies and their regulatory changes as well as new Best-Practices in HRM. We will also discuss some significant state and local law changes that are making the employment landscape more of a challenge. Large scale federal changes (or proposed changes) have been made in regulations controlling the National Labor Relations Act (NLRA), the Fair Labor Standards Act (FLSA), the Occupational Safety and Health Act (OSHA), the Equal Employment Opportunity Commission (EEOC) and Title VII of the Civil Rights Act of 1964, along with significant changes within the Department of Labor and other federal government agencies.

The session will focus on providing faculty with the necessary information with which to avoid errors resulting from student or faculty consulting projects.

How to Create and Run an SBI Program at Your University

Ron Cook, Rider University
Michael L.Harris, East Carolina University

This session will discuss the nuts and bolts of to creating an SBI program and the value to all parties of doing so. Topics include what is an SBI project, the benefits of an SBI program, program delivery choices, the support needed, pitfalls to avoid, and the recognition/rewards from doing SBI.

COMPETITIVE ABSTRACTS

The Importance of Corporate Branding in the Early Stages of New Venture Formation: An Empirical Analysis

Robert Perkins, University of West Florida
John Batchelor, University of West Florida
Justin Davis, University of West Florida
Patrick Walker, University of Kentucky

Abstract

Corporate branding is often overlooked by early stage new venture founders. These founders tend to focus on product development, product branding, and meeting immediate customer needs. They view branding their corporation as something that occurs in stage four or the growth cycle of their business. Little do they understand that if they do not dedicate adequate and aligned effort toward corporate branding their organization may not survive and never reach the growth stage. Perkins and Batchelor (2019) proposed a set of branding activities linked to corporate strategy. They outlined specific actions with detailed description of which corporate branding activities should be performed in each stage of the new venture life cycle. The purpose of this study is to empirically test the propositions of Perkins and Batchelor (2019) using a sample of business owners and new venture founders.

The Importance of Math Skills in Agricultural Finance Courses

Roozbeh Irani-kermani, Sam Houston State University
L. A. Wolfskill, Sam Houston State University
Shyam S. Nair, Sam Houston State University
Danhong Chen, Sam Houston State University

Abstract

Many empirical studies have investigated the main factors affecting the performance of students in different courses. Most were in business and economics fields, with a few looking in finance. The significant factors are not the same in different studies. In some studies, both age and gender were highly significant, while in others these factors were insignificant. Some researchers found a high correlation between the students' performance in finance courses and their grades in math and statistics courses, while other researchers claimed that students' performance in other courses is irrelevant. The objective of this study is to investigate factors affecting student performance in agricultural finance courses (AGBU 2389 & AGBU3367) at [a regional university]. We analyzed a sample of 1504 students (928 female, 576 male), enrolled from 2000-2018. In comparison to other studies in this area, we use a larger sample size and study for a longer period. This reduces the time-sensitivity and increases the reliability of our results, mainly in the specific geographic area of our concern. We use Seemingly Unrelated Regression in STATA to identify the factors which explain the variations and we are controlling for endogeneity that happens by using GPA as an independent variable. The preliminary results indicate that the SAT scores, students hometowns, their previous colleges, their performance on the prerequisite courses, seasonality, instructors and students' number of math-related courses are significantly correlated with the performance while gender and age are not.

Keywords: Student Performance, financial skills, microeconomics, Agricultural finance

An Investigation of Omani Student Entrepreneurial Attitudes

Dennis Barber III, East Carolina University
Suhail Ghouse, Dhofar University
Kruti Lenhenbauer, University of Incarnate Word
Michael Harris, East Carolina University

Abstract
Entrepreneurial attitudes of 144 usable responses from universities and colleges in Oman were measured with the Entrepreneurial Attitudes Orientation (EAO) survey instrument which was comprised of four subscales (innovation, personal control, self-esteem and achievement). The data were assessed by utilizing a combination of descriptive and simple inferential statistics. t-test was performed to compare the sample mean to the mean entrepreneur scores and the secondary analyses utilized ANOVA to examine whether or not the entrepreneurial attitudes found among the Omani sample population were significantly different based upon gender or previous exposure (ownership, family or work) to entrepreneurial activities.

Omani students scored higher that American students on Innovation, Personal Control and Achievement but lower on Self-Esteem. Female students scored at least as high as males in the overall EAO and each of the subscales except for Self-Esteem. Respondents with previous exposure to entrepreneurial did not score differently at a statistically significant level.

Where's My Stuff! How Global Supply Chains Are Being Impacted by Nationalism, Technology, Tariffs, Uber (maybe) and What it could mean to Small Businesses

David J. Bechtold, Metropolitan State University of Denver
David L. Hoffman, Metropolitan State University of Denver

Abstract

Globalization has been under continuous pressure due to beliefs that global supply chains put domestic manufactures, and local workers, at an extreme disadvantage. The continuing offshoring of product manufacturing to countries such as Mexico and China have caused a political backlash and a renewed interest in political populism. The growth of populism in turn has renewed interest in protecting domestic manufacturers which has resulted in increasing tariff and non-tariff barriers. In response to this political threat companies, particularly multi-national corporations (MNC's), have resorted to breaking global manufacturing and supply chains into regional operations. Internet shopping, personalized product and almost instantaneous delivery expectations continues to further facture even regional manufacturing and supply chains. However, the advent of cloud computing, A.I. and 3-D printing could create significant opportunities for small business manufacturers.

The authors posit that changes in the global environment, in particular the new advances in affordable technology, create opportunities for small, contract manufacturers to produce branded merchandise to customer personal expectations. To accomplish scale these contract manufacturers need to be networked into local or local/regional manufacturing groups. To coordinate this group of small business producers the authors consider how Uber has achieved scale by contracting directly with individual drivers and propose that this knowledge could be used to create a regional (or local) manufacturer platform (RMP).

Local RMP's will reinvigorate domestic business (though perhaps on a different scale), reduce MNC political risk, be highly responsive to local market demands, greatly reduce manufacturer and distributor pollution emissions, and revitalize local businesses.

Keywords: regional manufacturer platform, 3-d printing,

Enterprise Diversification and Farm-Level Productivity

Godfrey Ejimakor, North Carolina A & T State University

Abstract

Enterprise diversification is known to reduce income risk at the expense of net income. Some of the income loss may result from engaging in enterprises with lower market prices. Some of the loss may also stem from productivity losses associated with diversification. The productivity losses that stem from diversification may be of interest to farming operations that are searching for more risk-efficient enterprise combinations. We will use farm-level data to estimate the impact of enterprise diversification on farm production systems in the Piedmont Triad region of North Carolina. Data for our study will be taken from a farm-level survey of a 12-county region in North Carolina. Our findings will be useful in determining the impact and magnitude of diversification on labor and land productivity and help farmers to allocate resources more efficiently between enterprises.

Planning for Success: Do Business Plan Projects and Competition Participation Contribute to Entrepreneurial Competencies?

David Snow

Abstract

Success in entrepreneurship education is more than measuring business starts. It is about developing the skills to be creative and innovative in order to solve problems and seize opportunities. Today, we see entrepreneurship as not only starting businesses, but it includes creative and innovative behaviors as skills which are beneficial throughout life regardless of profession, and integral for individual success. Educators attempt to develop these skills in students with curricular and co-curricular programming. It is an important distinction because it is understood one may act entrepreneurially without necessarily starting a business. Therefore, additional methods of measuring the effectiveness of both entrepreneurship curricular and co-curricular programming other than business starts are warranted. This is especially true of business plan competitions (BPCs). There is an absence of empirical attention given to the learning and skill development acquired from preparing for and participating in these events. There is debate concerning the efficacy of writing business plans and participating in business plan competitions. With all the time, effort, and money dedicated by faculty, staff, sponsors, and students to BPCs, it seems prudent to study the efficacy of this method of experiential learning. Limited research exists concerning the effectiveness of business planning courses. Through the use of a survey instrument, this study will examine the entrepreneurial competencies of students who participate in these events. College students from colleges and universities across the United States were asked to participate.

The Effect of Skill Congruence and RIASEC Congruence on Job Satisfaction in a Survey of Supply Chain Professionals in Small Businesses

LeAnne Coder, Western Kentucky University
Michael Givens, Western Kentucky University – Gatton Academy

Abstract

In the past decade, there have been numerous theories within management literature (e.g. Barney 1991; Pfeffer & Veiga 1999; Goffnett, Williams, Gibson & Garver 2016) regarding the importance of employees within an organization. In these readings, employees are viewed as one of the most, if not the most, critical capital in business. Therefore, employee retention is of the utmost importance within all businesses but especially small businesses. This is due to the interconnectivity of each employee within each department and the inability of a small company to fill a new opening right away. For small businesses to retain their employees, they must do their best to keep job satisfaction and company morale high. This research examines the correlation between job satisfaction and employee skill level versus the correlation between job satisfaction and RIASEC interest level in supply chain professionals within small businesses. We have determined that individuals who are highly skilled in their job have a much higher job satisfaction. The research also shows that individuals who are happier in their job are less likely to look for a career or employer change.

Keywords: Human Capital, Supply Chain, RIASEC, Congruence

Financial Innovation Facilitating Women Entrepreneurship in Patriarchal Societies

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Dr. Waqar Akram, Sukkur IBA University, Sukkur, Pakistan
Ms. Kiran Razzaq, Superior University, Lahore, Pakistan

ABSTRACT

Mobile Money (MM) has the potential to enhance women entrepreneurship in specific, and promote small business in general in the developing countries by increasing the financial inclusion of unbanked population. Involvement of women in entrepreneurial activities is of huge importance to support economic development in these countries but unfortunately patriarchal trends bring various socio-cultural, religious and financial barriers for women. Which include restrictions in mobility, lack of financial literacy, limited access to finance and conventional banks, and inability to access financial services. MM can be "at the door step" solution to these obstacles and it has the potential to facilitates basic financial services of small business with ease and convenience which will bring economic, social, and individual development by increasing savings rate, circulation of money, and by reducing income volatility.

MM has succeeded to capture huge market share in many developing countries in the past decade because of its convenience, ease of use, and wide spread accessibility. It has the potential to bring financial services to nearly 2 billion unbanked consumers from the developing world.

This quantitative study is based on Technology Acceptance Model (TAM) and the analysis of factors that determine adoption and preferences of people for the use of technology. Primary data will be collected from women entrepreneurial ventures and small business from the rural and urban areas of Pakistan to investigate the obstacles in establishing and running small businesses and to what extent mobile money has succeeded to address those needs.

Keywords**:** women entrepreneurship, small business, financial inclusion, financial inclusion mobile money services, patriarchal societies.

Linking Local Food Prices to Entrepreneurial Opportunities for Small Farmers

Kathleen Liang, North Carolina Agricultural and Technical State University

Abstract

The local food movement has gained significant attention in recent years. Scholars have different views on promoting local food based on pricing strategies. Some people believe that local food seems to be more expensive at farmers' markets and other direct sale venues. Some people argue that the prices of local food reflect support to local farmers who directly and indirectly contribute to support to agriculture and working landscape. Very limited research-based evidence exists to validate if locally grown produce (both organic and non-organic) is truly more expensive than imported produce. This presentation shares a research project in North Carolina to examine the hypothesis if locally grown fresh produce is more expensive than imported fresh produce. We use price data gathered from different markets in one county in North Carolina every Wednesday – Whole Foods, Super Wal-Mart, local coop, and local farmers market. The data collection has been an on-going process started in May 2019. More than ten categories of fresh vegetables and fruits are covered in this study. We will share the price series and variations, as well as comparing North Carolina price series to the Southeast regional price series across various fresh produce. We will also explain cost structures for small-scale produce farmers since they often face challenges in sustaining profitable operations due to resource constraints and limited market opportunities. Finally, we will discuss risk variations, resource issues, and entrepreneurial opportunities for small-scale farmers who are involved in or intend to transition into certified organic mixed vegetable operation.

Mindfulness, Socioemotional Wealth, and Family Firm Performance

Sandra Sydnor, Purdue University
Maria Marshall, Purdue University

Abstract

The growing interest in organizational or collective mindfulness has evolved from the emphasis on catastrophe avoidance in high-reliability organizations to investigations of mindfulness' effect on leadership and firm performance. Recent studies underscore and define collective mindfulness noting a refusal to function on 'auto-pilot' and a sustained attention on detailed comprehension, and factors that interfere with it, while engaging in the everyday social processes of organizing (Sutcliffe, Vogus, & Dane, 2016).

Some studies suggest family firms' need for and predisposition to preserve socioemotional wealth (SEW) (non-financial aspects of family firms' affective needs) explains decision-making differences that set them apart from non-family firms (Cennamo, Berrone, Cruz, & Gomez–Mejia, 2012; Dayan, Ng, & Ndubisi, 2019). Zellweger (2013) suggests family firms are characterized by collective or organizational mindfulness, manifesting a concern for firm reliability, effectiveness, a commitment to resilience and the capability to rebound from setbacks (Hu, Zhao, & Chen, 2019).

Dayan, Ng, and Ndubisi (2019) reason that SEW preservation is a mindful strategy available to family businesses in developing sustainable products and processes. This study attempts to investigate the influence of organizational mindfulness on family firms' strategic decision-making. We suggest that SEW and a culture of collaboration can positively affect family firms' strategic decision-making and enhance performance. Preliminary results show that a culture of collaboration and SEW are positively associated with higher performance. Mindful action would predict that business owning families, because of a common history, may form a strong foundation to weather adversity and be more concerned with long-term value creation.

Keywords: socioemotional wealth (SEW); mindfulness; family firms; performance

The Disconnect Between State Laws Regarding Cannabis Legalization and Employee Protections

Gita Sharma, New Jersey City University College of Business
Vanessa Johnson, University of Houston - Clear Lake

Abstract

Marijuana ("cannabis") is classified as a Schedule I controlled substance under the Controlled Substances Act ("CSA"). Therefore, under federal law, the drug has "no currently accepted medical use in treatment," and "there is a lack of accepted safety for use of the drug . . . under medical supervision." Nevertheless, thirty-three states and the District of Columbia have legalized cannabis for medical purposes. Yet, many of these states have statutes, which allow employers to maintain zero-tolerance drug policies. Consequently, some courts have found that employees are not protected against discharge due to their off-duty use of medical marijuana." Due to these inconsistencies, both small and large employers need guidance. Therefore, this article will examine the current legal landscape to provide much needed clarity and highlight statutes in states in which there is a disconnect between cannabis legalization and employee protections for medical marijuana users.

Servant Leadership and the Art of Becoming a Jedi

Veronica Veaux, Bemidji State University

Abstract

Whether we are aware of it or not, most people are working to become a servant leader. This abstract supports the servant leadership philosophy using film references from *Star Wars Episode III: Revenge of the Sith*. Using film references from *Star Wars* assists in understanding the concept of servant leadership since the essence of Jedi traits and servant-leader characteristics have many commonalities.

Even though servant-leadership and Jedi may not always use the same key words; I would argue the spirit of both is similar. For instance, servant leaders and Jedi both place an importance on empathy, value is placed on patience and foresight, and a commitment to being responsible stewards is evident.

Star Wars is an excellent example of servant leadership in action, as it shows the struggles a servant leader may experience. In the film, Anakin Skywalker resists the calling of becoming a Jedi (servant leadership) and transforms into Darth Vader. *Star Wars* demonstrates the destructive force and inner turmoil that results from living in a manner that is opposite of servant leadership.

I begin discussing the characteristics of a servant leader and Jedi traits. I use examples from the film to support the contradictions and inner strife that one may experience as they journey to becoming a servant leader, while blending examples of how servant leaders behave. Finally, I conclude with why I believe there is a need for more servant leaders and outlay some of the benefits servant leaders have on organizations and society.

Investor Relations and Social Entrepreneurship: Implications from Agency Theory

Phillip Davis, Texas State University
Joshua Bendickson, University of Louisiana Lafayette

Abstract

Social entrepreneurs use entrepreneurial mindsets to help solve social problems. While some researchers are not convinced that social entrepreneurship is a separate domain (VanSandt et al. 2009), much attention has been devoted towards the rise in social entrepreneurship (Dacin, Dacin, & Tracey, 2011; Pless, 2012). At the heart of any social entrepreneurial mission lies an individual who believed that he or she could make a difference. As the social entrepreneur engages with others to achieve the mission, he or she engages in entrepreneurial agency, hence becoming an embedded agent (Seo and Creed, 2002). We argue that at times, these embedded agents may indeed act as agents, while in some instances actually be more of a principal. Regardless, scholars recognize that serving as a dual agent/principal may pose challenges (Bendickson et al. 2016). The purpose of this manuscript is to shed light on some of the challenging arrangements in social entrepreneurship. Specifically, we examine how social entrepreneurs face agency issues that place them at the cross-roads of difficult decisions. We investigate the phenomenon through the lens of self-regulatory processes that serve as an individual's moral compass. This builds around budding conversations that story various scenearious and contingencies that may hinder social entrepreneurship (Bendickson et al. 2016) or social innovation (Kickul et al. 2018). An overview of our Table 1 highlights some of the directions for this working theoretical manuscript.

Table 1. Social Entrepreneurs and Theory

	Social Bricoleur	Social Constructionists	Social Engineer
Theoretical Foundation	Hayek (1942)	Kirzner (1973)	Schumpeter (1942)
Social Issue Scale	Small	Small - Large	Very Large
Social Scope	Local	Local - International	National - Global
Expertise	Knowledge of local problems and local resources.	Knowledge to build and operate alternative structures to address social problems.	Knowledge to create new social systems designed to replace ineffective ones used to address large-scale social problems.
Role as the Principal (as the Social Entrepreneur (SE))	Identifies local social issues and assimilates resources from resource grantors to address localized social issue; local competition.	Orchestrates the construction of institutions that address social needs that are left un-addressed; little or no competition.	Serves as the chief architect in charge of dislodging antiquated social systems that are viewed as ineffective in addressing social problems; incumbent competition.
Role as the Agent (as the Recipient of resources from Resource Grantors (RG))	Receives resources from resource grantors and orchestrates localized solutions.	Receives funding from resource grantors that require oversight and professional management.	Faces challenges of legitimacy during pre- and post-funding rounds as entrenched incumbents cast public doubt.
Agency Problems	• As Principal, the SE acts independent of RG; RGs seeking more control, attempts to direct the SE. • As Agent, the SE focuses solely on addressing local issues. RGs seeking a broader appeal, pressures the SE to expand.	• As Principal, the SE struggles with financial and human resources concerns. RGs require controls to manage funds. • As Agent, the SE diverts focus away from the mission and onto managerial controls. RGs seeking oversight, drives funds toward paying professionals and away from the mission.	• As Principal, the SE faces direct threats from competitors. RGs may be influenced by incumbent claims, driving the SE to seek legitimacy by any means. • As Agent, the SE will continue to face legitimacy issues from funders; the SE will also face competition from established institutions as they further entrench to survive.

Investigating the Decision Making and Cash Flow Management Practices of Small U.S. Table Top Gaming Entities: Where are the accountants, and what role does accounting play in such processes?

Joe Giordano, Metropolitan State University of Denver
Phil Boyer, Metropolitan State University of Denver
Andrew Holt, Metropolitan State University of Denver

Abstract
In recent years, the U.S. consumer market for table top gaming products has grown tremendously, but little is known about the varied array of small entities that dominate this market. How varied are their business models, operating cycles, and capital structures, and what role does accounting information play in the strategic decision making and cash flow management practices of such entities?

This study uses data obtained from 10 semi-structured interviews (additional data collection is ongoing) with managers and owners at small U.S. gaming companies, to evaluate the role of traditional accounting information in strategic decision making and cash flow management practices, and finds that such information is often of secondary concern within these processes. For many entities, trust and personal relationships are key influential variables that shape business models, operating cycles, and decisions about awarding and being given trade credit. As a result, the desire and perceived need to prepare detailed financial statements and cash flow forecasts is absent at many entities, especially those owned by highly creative entrepreneurs who care more about product quality than profit maximization.

This project is ongoing, but the data collected to date challenges preconceived notions about the need for successful entities to both collect and successfully integrate accounting data within their decision making and cash flow management processes.

Experiential Learning in Data Analytics and Auditing: Collaborations between Accounting Firm, Client, and the University

William Mesa, Metropolitan State University of Denver

Abstract

This working paper examines how the Small Business Institute (SBI) is a link to business, community and education through the small to regional sized accounting firm sector. Rather than linking only education and the business, this paper demonstrates incorporating two businesses—the accounting firm collaborating with the university and the accounting firm's client working indirectly with the university. For small and regional accounting firms, disruptive technologies are restructuring their services and markets requiring firms to adapt. As such, the collaboration can foster adaptation strategies for small to regional sized accounting firms. The extension of the triad creates a network yielding positive externalities for the accounting firm, students, the client, and the university's ties to the community. Additionally, the paper addresses three research gaps in the SBI Journal. First, the paper covers an experiential learning project in auditing, a topic not yet published in the SBI Journal. Second, the paper addresses the gap in the Journal literature regarding the use of data analytic software and AI applications in experiential learning. Third, the paper provides an example of how university faculty can be agile by seizing unplanned opportunities in the classroom, which at first glance may not be the right "fit" for a course in progress. Finally, the paper discusses the survey results from students, input from the accounting firm, and input from the firm's client all with respect to the results of the collaborative effort.

Keywords: accounting, auditing, experiential learning, data analytics

The Role of Advisor Alienation in Turnaround of Owner-Managed SMEs

Mark Hagar, Cranfield University

Abstract

Failure rates among SMEs remain high and limited research exists as to effective methods of reducing failure rates among these firms. In an effort to reverse a financial decline many organizations will enter into a process commonly referred to as Turnaround Management, a stage-based model for organizational recovery. While some firms experience successful turnarounds, others fail. Peculiarly, some of those seeking assistance will choose not to implement the identified strategy and make no attempt to improve performance of the business.

In an effort to better understand this phenomenon, research was conducted exploring the barriers to turnaround strategy implementation in owner-managed SMEs from the perspective of turnaround consultants. Using repertory grid technique twelve consultants offered their perspectives of 72 SME owner-managers who attempted to implement a professionally developed turnaround strategy, 36 who succeeded and 36 who failed.

The research presents *advisor alienation* as a theory suggesting a causal link between owner-manager behaviors in times of distress and the lack of rapport identified by the turnaround consultants as vital to success. Advisor Alienation is described as a tendency by the owner-manager to reject the consultant's guidance due to an inability to overcome the pressures brought on by financial distress. Each of the dynamics of advisor alienation presents unique challenge to the consultant attempting to implement a turnaround strategy. Recognition and understanding of the factors that contribute to advisor alienation could serve to reduce friction between the consultant and the owner-manager and aid in building rapport as a function of the turnaround process.

Bridging the Gap: How A University Venture Capital Course Can Bring Private Equity Firms and Under-Represented Students Together

Michael Jennings, Metropolitan State University of Denver
Adam Schor, Metropolitan State University of Denver
Paul Camp, Metropolitan State University of Denver

Abstract

Despite professed industry interest to increase diversity in their staffs, private equity and venture capital firms face structural and behavioral barriers to accomplishing this goal. At the same time, students who might be successful in the classroom fail to seek roles because they are not aware of the professional opportunities within the industry. This awareness gap may be particularly acute among students of certain economic strata, where exposure to careers such as investment banking, private equity and financial management are not common. This paper proposes an academic program that could bridge the gap. By establishing a course where students can get real world experience in venture capital investing, we can increase awareness among students of possible career options. And by training students with the skills necessary for private investments, potential hiring firms can consider these students for entry-level jobs. This paper draws on literature that supports the need for diversity and that students with broad awareness of career options tend to have greater job satisfaction. The paper will also address the benefits of such a program to a broader university, including furthering goals of an anchor mission, where universities do not only occupy a place in a community but contribute to its overall success. Finally, the paper will offer practical advice on how to structure such a course and ensure continuity over a multi-year investment horizon.

A New Pedagogical Approach to Teaching Financial Responsibility

Rebecca Prater, Metropolitan State University of Denver
David Lynn Hoffman, Metropolitan State University of Denver

Abstract

Entrepreneurial educators have difficulty teaching financial feasibility and its connection to market research. Many of the software packages that develop financial pro formas are so complex that they require inordinate help from the instructors. Once generated the students do not understand the results or how the software developed them. The authors have taught financial feasibility, business plan classes and SBI consulting classes with several of these packages and have developed their own pedagogical approach. They require the students to bring some key ratios into class. Then the instructors walk them through the four input pages which requires about 2- 3 class sessions. The students can then determine whether their project is financially feasible and if so, create financial pro formas. The benefits to students are that they understand their assumptions, what they inputted into the model, and understand the results. The approach also considers the would-be entrepreneurs' qualitative factors such as time required for the business venture, work life balance considerations and their approach to risk.

Investigating Fraud in Small Business: The Role of the Working Trial Balance in Supporting Damages Computed by Indirect Methods in Forensic Accounting

Sheri L. Betzer, Metropolitan State University of Denver
Andrew Holt, Metropolitan State University of Denver

Abstract

Forensic accounting engagements for small businesses often require the tracing of funds to prove damages resulting from alleged wrongdoings and is a largely unexplored research area. Direct methods specifically identify certain amounts that are affected from those misdeeds. Oft times it is impossible to ascertain those specific monies; therefore, indirect methods are used to identify the related damage amounts. The accounting profession universally recognizes the net worth method, but the Internal Revenue Service uses two additional indirect approaches: the expenditures method (or also known as the source and application of funds method) and the bank deposit method.

Using a working trial balance is a creative approach to journalize the bank account and all other transactions for a small business. The worksheet starts with opening balances in the trial balance at a point in time when all accounts may be documented. The goal is to post the transactions through the use of journal entries to reach ending balances that are also documented at a chosen point in time. All transactions are thought out through debits and credits to prevent duplication of sources and uses of funds. The cash account line item is used as a "clearing house" for the unknown sources or uses of funds. Once all adjusting journal entries are posted, the cash line is netted out. If the balance is negative, one last journal entry is made to debit cash and credit an unknown source of funds.

When completed, any one of the indirect methods can be used to compute damages or undisclosed sources of income for a small business. This paper presents a case study of how the working trial balance approach can be used to identify whether monies have been stolen from a small business and illustrates some of the issues that forensic accountants face when investigating such entities.

Keywords: Fraud investigation, forensic accounting, indirect methods, net worth method, bank deposit method, expenditures method, source and application of funds method, case study

The Effect of the Secure Act on Small Businesses and Small Business Employees

Richard L. Russell, Jr., Metropolitan State University of Denver

Abstract

On December 20, 2019, President Trump signed the Secure Act (Setting Every Community Up for Retirement Enhancement Act) into law.1 This act makes significant changes to the United State's retirement infrastructure, specifically for part time workers and employees of small businesses. A 2018 study by Transamerica Retirement suggests that low income Americans are significantly less likely to save for retirement. Further, data over the past decade indicates a shortage of plans available for small business employees. In addition, the old tax rules regarding 401(k)'s and IRA's provided less incentive for small business employers or the employers of part-time workers to create and maintain plans for such employees. The rules of the Secure Act now provide additional encouragement for employers to create places for employees such as: 1) allowing certain employers to pool plans, 2) an increase to employer tax credits for plan auto enrollments and 3) mandatory provisions requiring plans for part-time employees.5 This paper will discuss the findings of research to survey 1) employers who already have retirement plans set up for small business/part-time employees and 2) the number of businesses that are currently (or in the future) setting up new plans for small business/part-time employees.

ROUNDTABLE DISCUSSIONS

Bridging the Gap: How A University Venture Capital Course Can Bring Private Equity Firms and Under-Represented Students Together

Michael Jennings, Metropolitan State University of Denver
Adam Schor, Metropolitan State University of Denver
Paul Camp, Metropolitan State University of Denver

Abstract

Can you do well and do good? Universities that want to offer real investment experience to students while providing reasonable returns to investors face this challenge. For a private equity program, the challenge is greater yet because the complexity increases: Acclerator or incubator program? Equity venture capital or micro-loan venture? Go alone or partner with local venture capital firms?

This roundtable proposes a spirited dialogue regarding the solutions to starting a private equity program at a university, especially when an important part of the goal is to bridge the knowledge and funding gap between private equity firms and under-represented students. It will address class structure, partnership opportunities and the trade-off between educationg inexperienced investors and seeking competitive returns.

The question is important because universities can play a role in increasing diversity in the financial industry in general and in the private equity space in particular. Despite professed industry interest to increase diversity in their staffs, private equity and venture capital firms face structural and behavioral barriers to accomplishing this goal. At the same time, students who might be successful in the classroom fail to seek roles because they are not aware of the professional opportunities within the industry. This awareness gap may be particularly acute among students of certain economic strata, where exposure to careers such as investment banking, private equity and financial management are not common. By establishing a course where students can get real world experience in venture capital investing, we can increase awareness among students of possible career options. And by training students with the skills necessary for private investments, potential hiring firms can consider these students for entry-level jobs.

This roundtable draws on literature that supports the need for diversity and that students with broad awareness of career options tend to have greater job satisfaction. The roundtable will also address the benefits of such a program to a broader university, including the opportunity to assist budding entrepreneurs affiliated with the university and to create a self-funding vehicle to grow an endowment The roundtable will offer practical advice on how to structure such a course and ensure continuity over a multi-year investment horizon.

CTE-Practicum-Partnership: Reframing Career Pathways

Irene Chen, University of Phoenix
Elizabeth Isele, Global Institute for Experienced Entrepreneurship
Matthew Knight, Walden University
Norris F. Krueger, Jr., University of Phoenix
Ronald G. Leach, University of Phoenix
Jean R. Perlman, University of Phoenix
Louise Underdahl, University of Phoenix

Abstract

With approximately 8.3 million U.S. high school students enrolled in career and technical education (CTE) courses in 2016-17, CTE is being reframed as the pathway to a productive career, rather than a college alternative. Research suggests active learning through practicum supports increased knowledge retention and promotes workplace engagement. The role of educators has expanded from developing classroom curriculum to promoting community partnerships with businesses and organizations in both the United States and abroad.

Global manifestations of CTE encompass apprenticeship, family/community-based work, corporate in-service training, internship, school-based enterprise, and activities such as field trips, work shadowing, occupation-based projects, career day events, and career mentoring. Advantages include expedited school-to-work transition, bridging the gap between theory and practice, strengthening skillsets, sparking students' interest in career training, and developing bonds between school, industry, and community. Yet, in many cases, CTE has failed to fulfill expectations, with school counselors pressurizing students to attend college, rather than use CTE certification to transfer to trade schools, credentialing programs, or directly into the workforce.

Research is needed to synchronize efforts by CTE teachers, advisory committee members, and external organizational partners to give students exposure to their fields outside of the classroom. Effectiveness is sabotaged by lack of metrics to monitor program success, execute actionable strategies, and integrate on-the job training with classroom learning.

Target Audience: Academic, economic, social, and political thought leaders and policymakers.

Anticipated Outcomes: Identify best practices in formulating metrics to monitor program success, execute actionable strategies, and integrate on-the job training with classroom learning

Round Table Discussion on AACSB Standards
Including Impact, Engagement and Technological Agility

Ann Murphy, Metropolitan State University of Denver
Sharon Kerrick, University of Louisville
David Lynn Hoffman, Metropolitan State University of Denver

The purpose of this round table is to explore with the panel and participants the AACSB standards. Because the AACSB standards keep evolving the participants will be able to hear from other schools what did and did not work, how they were meeting the standards and other issues. All of us can benefit from learning from each other.

The discussion may also include the concepts of Impact, Engagement and Technological Agility.

The group will be asked to share their definitions, methods of measurement, successes with these concepts, and their issues implementing these.

Creative Assignments to Engage your Students

Angie Kovarik, Bemidji State University
Veronica Veaux, Bemidji State University
Debra Sea, Bemidji State University

Abstract

Do your class assignments feel stale and less than inspiring? Do you have a creative assignment that really works, and want to share with others? Come to our roundtable session to share an assignment or get new ideas for creative assignments that work. From using comic strips to visually explain case studies to summarizing a reading in a 140-character tweet to using the ***Scattergories*** game as a brainstorming tool, this session will spark your imagination and help you stay inspired through the end of the semester. Assignments are cross-disciplinary and can be used in any field.

Takeaway: Participants will get share a creative assignment or get new ideas to revise existing assignments.

Roundtable on Fellows Programs

David Lynn Hoffman, Metropolitan State University of Denver
Dianne Welsh, University of North Carolina at Greensboro
Emily Ondrace Peterson, Metropolitan State University of Denver
Steven Krizman, Metropolitan State University of Denver

Abstract

The proposed roundtable will discuss the Fellows programs that was begun by Dianne Welsh at the University of North Carolina at Greensboro and Lynn Hoffman's Program at Metropolitan State University of Denver. Professor Welsh in her book, *Creative Cross-Disciplinary Entrepreneurship* explains the need for business programs to build cross-campus interdisciplinary programs involving faculty from across campus. These faculty "Fellows" are required to attend a training session, include entrepreneurship in their courses, and make the necessary curriculum changes if needed. The Fellows program gets business schools involved in other disciplines around the campus and helps those schools meet an increasing need for their graduates to start their own businesses or freelance using their majors. Examples are music and journalism students who often start their own business or freelance after graduation.

Participants will include the faculty that are involved and some of the Fellows. The objective of the roundtable is to explain the program, encourage other campuses to adopt the program, and provide the current Fellows an opportunity to explain why they got involved and describe some of their experiences.

Conscious Business Practices for Small Business

Adam Melnick, Metropolitan State University of Denver
David Becthold, Metropolitan State University of Denver
Rebeca Prater, Metropolitan State University of Denver
David Lynn Hoffman, Metropolitan State University of Denver

Agenda

This roundtable discussion will provide participants an opportunity to become acquainted with the principles of Conscious Capitalism and how and why they are increasingly relevant to the success of small businesses. This highly interactive, discussion-based session is intended for students, academic professionals, and practitioners and will be facilitated by Adam Melnick, Entrepreneurship Lecturer at MSU Denver, with subject matter contributions from MSU Denver's Lynn Hoffman (Entrepreneurship), David Bechtold (Strategy), and Rebecca Prater (Entrepreneurship). Adam will provide a broad overview of conscious business practices including: (1) the importance of purpose; (2) stakeholder orientation / engagement; (3) Conscious Culture; and (4) Conscious Leadership. David Bechtold will provide a deeper dive into purpose by discussing how it can provide brand identity and a competitive advantage for small businesses. Lynn Hoffman will discuss how incorporating conscious business practices relates to thinking entrepreneurially and opportunity identification and Rebecca Prater, a small business owner/operator will discuss how implementing the Conscious Capitalism principles enhance business performance.