Fall 2016

Presidents' Perceptions of Entrepreneurial Strategies in Community Colleges: A Disruptive Innovation

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PRESIDENTS' PERCEPTIONS OF ENTREPRENEURIAL STRATEGIES AT COMMUNITY
COLLEGES: A DISRUPTIVE INNOVATION

by

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A Dissertation Submitted to the Faculty of
Old Dominion University in Partial Fulfillment of the
Requirement for the Degree of

DOCTOR OF PHILOSOPHY

COMMUNITY COLLEGE LEADERSHIP

OLD DOMINION UNIVERSITY
November 2016

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ABSTRACT

PRESIDENTS' PERCEPTIONS OF ENTREPRENEURIAL STRATEGIES AT COMMUNITY
COLLEGES: A DISRUPTIVE INNOVATION

James Tyler Hart

Old Dominion University, 2016

The community college, like all of higher education, has been significantly impacted by a
shifting business model and changes in funding. The purpose of this mixed methods, sequential
study was to examine community college presidents' perceptions of entrepreneurial strategies in
the higher education industry. The shifting business model requires presidents to look for
alternative ways to innovate and adapt as community college funding models change.
Community college leaders have also been proactively seeking out alternative revenue streams in
order to help offset decreased state funding. Findings of this study show that community college
presidents perceive that they must be entrepreneurial in order to survive. There is some
difference in the level of which these perceptions exist based on the age and tenure of the
president. Community college leaders continue to forge new ground in unknown times as they
continue to search for sustainable business models.

  *Keywords: community college, leadership, funding, partnerships, entrepreneurship,
disruptive innovation*

ACKNOWLEDGMENTS

I am so grateful for all the people in my life that made this accomplishment possible. I think back to the times when I had to skip family events, miss special occasions, and the time that other people around me stepped up to help me. The support system within cohort 9 has been a driving force for me. I think back to our moto of "keep on moving" and I am so grateful to have reached a milestone in this journey.

First, my wonderful and fun loving wife Mali deserves many aquacades. Without her I would not be where I am in this process. She has pushed, consoled, irritated, and loved me unconditionally, especially in the last five years as we have shared the doctoral journey. Along the way she has blessed me with two beautiful, blue eyed, red haired daughters that are the light of my world. They have hugged me when I have been down and encouraged me when I needed the most encouragement.

To my parents, Gene and Linda Hart, I extend my complete love and gratitude. You gave me a firm foundation and taught me that hard work will yield results. You have supported me financially, spiritually and beyond. To Jeff and Debbie Tyson, you have been the best in-laws anyone could ask for. You too have showed my family all the support one could expect and for that we are grateful. The support and love you have offered me throughout my lifetime, and especially during the time of working on my PhD has been amazing.

I would also like to think my colleagues at Richard Bland College who have inspired and pushed me as we have pursued transformation of a small liberal arts college. The work done at Richard Bland College guided and shaped who I am as a higher education administrator and a "soon to be" scholar in community college leadership.

During my time as a doctoral student at Old Dominion University, I have had the privilege and honor to be guided and mentored by Dr. Dana Burnett and Dr. Mitchell Williams throughout my coursework and the dissertation journey. I am extremely grateful to have had the opportunity to work with both Dr. Burnett and Dr. Williams and I look forward to our continued professional relationship. I am also extremely grateful for the support and inspiration I have received from Dr. Sydow, who on her second day as president at Richard Bland College provided me with the opportunity to lead the strategic planning process as part of my internship class with Old Dominion University. As a thought leader in disruptive innovation and a transformation leader, I am honored to have been afforded the opportunity to work with you as an administrator and a colleague.

It is impossible that I could name all of the people in my life that have shaped the person I have become so I will just finish by thinking God for blessing me with the wonderful friends, family and colleagues that have influenced me as a person and scholar.

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CHAPTER 1

INTRODUCTION

Background and Motivation

With declining state appropriations and a challenging economy, institutions are forced to make tough decisions that can drastically change the institution's business model. Underfunded Colleges and Universities are facing tough decisions that force them to adopt a more entrepreneurial business model (Flannigan, Green, & Jones, 2005). Traditional higher education often views proprietary institutions as inferior because of aggressive business tactics, but financial hardships are forcing all institutions to find new ways of doing business.

Disruptive innovation is defined as a different product or service that is offered as an alternative to an existing product or service (Christensen & Horn, 2008). These innovations start out as inferior products that appeal to a different market. Sometimes the products or service are more simple or affordable. Eventually the new product or service, e.g., mobile telephone, improves and begins to disrupt the original market (Christensen & Horn). When institutions are faced with scarce resources as a result of reduced funding, they are put in a position where they must consider changing their product by making it simpler and more affordable in order to survive. They essentially change their business model and make adjustments to deliver the product based on customer demand. Less important aspects of the original product are often abandoned because the resources are scarce. Institutions, like other organizations, can turn short-term financial crisis into long-term development (Fordham, 2007). Over time, with planning, the products that

institutions offer can improve and eventually may be better as a result of the new, more efficient business model that was forced upon them.

Christensen, Horn, Aldera and Soares (2011) argued that disruptive innovation is needed to change the business model in higher education. An example of a disruptive innovation already spreading through higher education is online learning. Christensen et al. (2011) explained that online learning started out as an inferior product but has grown and improved quickly. In 2003, 10% of students took at least one online class. This number grew to 25% in 2008 and 30% in 2009(Christensen et al., 2011). Over time, the online product has improved, and more and more students are demanding online courses. These courses are taking more and more market share from traditional lecture courses, and new higher education products like online learning and hybrid courses are greatly impacting the higher education industry.

Another example of disruptive innovation is the increasing higher education market-share taken by for-profit institutions. Although some believe that these institutions offer an inferior product, their growth in the recent past suggests that they are meeting the needs of a market that was previously untapped (Breneman, Pusser, & Turner, 2006). Christensen et al (2011) suggested that disruptive innovation presents an opportunity to rethink many of the age-old assumptions in higher education.

Through this study, the researcher will investigate community college presidents' opinions of changing business models in higher education that are implemented as a result of reduced funding. The participants in this study are public community college presidents in the Southern Association of Colleges and Schools Commission on Colleges (SACSCOC). These presidents were asked if changes to funding and support have forced

their institutions to act more like businesses. The researcher explored if there is a correlation between the president's background and his or her perception about proprietary business models.

Research Problem

The funding of America's public higher education institutions has suffered because of budget cuts during financial crisis. According to Douglas (2010), an economic downturn typically means higher demand for higher education. Since states are cutting funding to higher education, institutions are forced to raise tuition and reduce course offerings: Douglas (pg. 24) stated:

The U.S. has already made large cuts in higher education and with equally difficult budget problems likely for next year for state governments – still the primary funding source for public colleges and universities are state appropriations. To reiterate, how the states go, so goes US higher education. At present, the only means for universities to make up for large budget reductions is to raise additional revenue, principally tuition and fees, or make significant cuts in programs, course offerings and, often, faculty to student ratios. Most universities and colleges are doing both.

This quote illustrates the problems facing institutions of higher education. Cuts to higher education are forcing tuition up and access to education down.

Students from the lowest income quartile experience higher barriers to education because of the increased tuition and fees. They need education and workforce training in order to respond quickly to economic needs. Community colleges must provide open access and workforce development according to Vaughan (2000), regardless of changes in public funding.

Most institutions of higher education operate in a collegial culture to foster academic freedom and faculty autonomy (Bergquist & Pawlak, 2008). This type of culture limits innovative and efficient business processes because of a lack of quantifiable accountability (Bergquist & Pawlak, 2008). Although there are some examples of innovation in community colleges, innovation is not a cultural norm in higher education (Wallace, 2006). In times of shrinking public funds, community colleges should find ways to be more efficient and stretch resources to fulfill the institutional mission. In this study, the researcher will seek to find out if community college presidents think that more entrepreneurial business models are a disruptive innovation. A better understanding of the views of community college presidents' views on entrepreneurial practices can help shape practices for future community college leaders.

Research Questions

1. To what extent do community college presidents in three states in the Southern Association of Colleges and Schools Commission on Colleges (SACS COC) perceive implementation of entrepreneurial business practices at their community colleges?

2. Among the presidents, is there a significant difference in the level of entrepreneurial business practices based on institutional characteristics (age, time in presidency, gender, race, & education)?

3. Among the presidents, is there a significant difference in the level of entrepreneurial business practices based on the state that their community college operates?

4. Among the presidents, is there a significant difference in the level of entrepreneurial business practices based on the institutions size?

5. Do community college presidents believe that the increased adoption of entrepreneurial business practices is a disruptive innovation (innovation that is viewed as inferior when introduced but over time gains market share and eventually takes the market) in higher education?

Study Significance

The predominant culture of higher education, in its current state, does not foster innovation nor does it allow for efficient business processes (Bergquist & Pawlak, 2008). More research is needed to foster innovation and improve efficiencies in higher education.   The researcher in this study investigated how changing funding sources have disrupted business models at community colleges. When colleges face a reduction in resources, they must become entrepreneurial and refocus on the most important outcomes (Powell, Jeffries, Newhart, & Stiens, 2006). This can generate opportunities for the organizations to improve efficiencies.

The results of this study will add to the scholarly research in the field of higher education in the areas of efficiency, funding diversification, and disruptive innovation. Investigating community college presidents' implementation of entrepreneurial business models will help other leaders more efficiently utilize limited resources and be prepared as revenue streams change. Looking at how presidents more effectively utilize limited resources and innovate to create new business models when public funding declines will help other leaders in times of economic hardship. Using the theory of disruptive innovation can explain how the new business models that are created as a result of a

reduction of resources can have long-term, positive impact on business processes in community colleges as a result of greater efficiencies.

Assumptions and Delimitations

The participants in this study were selected based on diversity of environments in the SACSCOC region. The participants include institutions that are large and small, rural and urban. The three states included represent the diverse community college systems across the region. Two states included have few colleges and a centralized system, one state has many colleges and is decentralized. This study does not suggest that all institutions are entrepreneurial and innovate to make significant improvements to business processes but the study seeks to understand the role of leadership and culture in implementing change as a result decreasing resources in an environment where colleges are trying asked to do more with less funding. The researcher assumes that, with the right leadership, institutions can adapt and change the way they do business to meet the comprehensive mission of the community college.

Dissertation Organization

The remainder of this study is organized into five chapters, a reference list, and appendixes in the following manner. In Chapter 2, the researcher will present a review of the relevant literature regarding entrepreneurial business strategies and innovation in higher education Chapter 3 will explain the research design and methodology that the researcher is using as well as the instrument used to collect data. Chapter 4 will describe the analysis of results and discussion of the findings. Chapter 5 will contain a summary, conclusions and recommendations for future research. Then the study will conclude with a reference list and appendixes.

CHAPTER 2

REVIEW OF THE LITERATURE

This chapter provides a review of the literature surrounding (a) the history of the community college mission and role of the president, (b) the changing mission and role of the community college president, (c) business models in higher education, (d) entrepreneurship in higher education, (e) entrepreneurial characteristics in community colleges, and (f) the theory of disruptive (business model) innovation in higher education. Disruptive (business model) innovation in higher education serves as the theoretical framework for this study, tying together changes in funding and institutional business models resulting from the change from an access agenda to a completion agenda in response to external factors.

Community College Mission

The mission of the community college is to provide access to higher educational programs and services that lead to stronger, more vital communities (Vaughan, 2006). Vaughan argued that this does not mean an open door to any program, rather the mission embodies provision of the prerequisites for transfer or professional programs. The community college provides all people with the opportunity to acquire the skills necessary to pursue higher education. A student out of high school may not have the

skills necessary for college, but the community college will help that student get the skills necessary to further his/her education. Vaughan said open access means (1) being within commuting distance for most residents, (2) support services, (3) child care, (4) flexible scheduling, and (5) distance learning. Community colleges attempt to reduce all possible boundaries to higher education. Cohen and Brawer (2003) describe how the traditional functions of the community college are academic transfer preparation, vocational-technical education, continuing education, developmental education, and community service.

Historically, community colleges provide access to students who would otherwise not attend post-secondary education. This was true even for the first community college, Joliet Junior College, which was formed to provide grades 13 and 14 for students graduating from high school (Joliet, 2013). Three main characteristics characterize the mission of the community college over time: (1) geographically and socially accessible, (2) non-selective, and (3) democratic (Fields, 1962). Over time the community college has adapted to adjust for changes in society; openness and accessibility have been constant.

Research universities have different missions than community colleges. Lattuca and Stark (2010) defined the research mission of a university as the production of new knowledge. O'Neil (2005) argued that New England's research universities are large contributors to the local economy, and they are an important source of New England's new knowledge that drives the region's growth. This concept can be carried to other research universities in other regions. However, O'Neil stated that that while research universities are valuable to the local economy, they cannot replace a high quality

community college (O'Neil). Braxton (1993) compared the academic rigor at highly selective research universities and less selective research universities and found that both types of research institutions valued critical thinking. At most community colleges, the faculty focus on teaching and providing students with skills in order to help them achieve their goals. However, Calderone (2005) argued that community colleges are also positioned to deliver critical thinking skills that will be valuable in the workplace or at the student's transfer institution. In other words, community colleges must provide skills that include teaching students how to think critically.

Within the American college and university network, many different missions exist. This allows potential students to choose the institution that best suits their individual goals. Liberal arts institutions emphasize artistic, literary and scientific works, and work to improve students' ability to appreciate knowledge and think effectively (Lattuca & Stark, 2010). Within one nation's college and university network, a student can go to a research university to produce new knowledge, a liberal arts college to study old works, or attend a community college that will provide child care assistance or distance learning while preparing for a job or to transfer to one of the other types of institutions. Marble and Stick (2006) studied the impact of increased admission standards designed to increase persistence and graduation in Missouri's public university system. The study found that although full-time enrollment (FTE) decreased slightly, enrollment at public community colleges and independent colleges increased (Marble & Stick). Does this mean that the initiative failed? This depends on what the goals of the institutions were for the increase in selectivity. This example illustrates the need for a diversified

system of colleges with varying levels of access to meet the educational needs of the population.

Selectivity and access within one institution logically are counter-intuitive. However, within a college and university system they can work together. Research universities work to move up the list of college rankings. U.S. News and World Reports ranks universities based on 15 indicators of academic performance, including selectivity, graduation and retention rates (Terrell, 2009). A university could potentially fall on the list by improving access; however, by working with community colleges through articulation agreements, a university can maintain prestige while, at the same time, providing an opportunity for anyone to attend. A student who did not qualify for a university's high admission standards after high school graduation can work hard and take prerequisite courses at a community college and transfer to the university. Solomon (2001) studied the success of transfer students from Northern Virginia Community College to George Mason University. The study found that there was no difference in GPA among students who completed two years at the community college and the students who started at George Mason University. This example illustrates that the students who went to a community college first experienced similar success as the students who first went to the university, highlighting the fact that community colleges and research universities can work together to maintain selectivity while improving access to education through articulation agreements.

Community College Presidents

A college president is responsible for the execution of the mission of the institution and is the primary leader in the organization. Leadership is the process of

aligning and matching resources in an effort to motivate members of a group toward a common goal, mission or vision. The steps in the process will vary with differences in the environment and situation. Northouse (2007) defined leadership as a process where an individual influences a group to achieve common goals. Northouse also said, "Although each of us intuitively knows what we mean by such words, the words can have different meanings for different people" (p. 2). Effective leadership may require different skills and knowledge in different situations. In other words, there is no "one size fits all" prescription to effective leadership.

Aligning and Matching Recourses

Part of effective leadership is putting the right people in the right place, at the right time, in order to achieve organizational goals. Adeniyi (2007) explained that it is important for leaders to match a person's skills and abilities with the appropriate job. When this matching of skills and abilities with jobs happens within an organization, leadership becomes less structured and leaders are more effective (Adeniyi, 2007). When a leader identifies an individual who does not have the necessary skill set within an organization, it is important that the mismatch be identified so the organization can take appropriate action. In other words, leaders are more effective when they have the right people in the right places to support the vision of the leader and the direction of the organization. Montor (1998) explained that management is the science of aligning resources against requirements, while leadership is the art of resolving the difference. Montor reiterated the fact that people are the most important organizational resource People are the most important part of an organization, and it is the leader's responsibility to give the people the right task to advance the organization toward a common goal.

Motivation

Once the right people are in the right place, it is important to motivate them. Transactional and transformational leadership are each related to employee/follower motivation. Northouse (2007) defined transactional leadership as exchanges that happen between leaders and followers. When a follower does something that supports group goal accomplishment, transactional leadership will ensure that the follower is rewarded. The reward can be financial or take other forms to make the employee feel good and want to do more for the organization. According to Northouse, transformational leadership is a process in which a person engages with others in a way that raises the level of motivation of the leader and the follower. A transformational leader gets followers to go above and beyond what is expected of them. In order to motivate effectively, it may be necessary to draw from both transactional and transformational theories, depending on the environment with which the leader is faced. A transformational leader may need to reward followers to ensure they continue achieving greater than expected outcomes.

Common Goal, Mission, or Vision

Leaders should communicate and pursue a common vision, goal and mission for their organization. In the case of an educational institution, a clear vision that is shared by the members of the institution is important to mission achievement. Shamir, House, and Arthur (1993) explained, "Articulation of a vision and mission by charismatic leaders presents goals in terms of the values they represent" (p. 583). Strong leaders make their values clear and thus are able to clearly express those values in the mission of the organization. This clear mission or vision teaches followers what is and is not accepted

by the leadership. Leaders must communicate what is expected and know what allows followers to pursue goal achievement for the organization.

Community colleges have historically been focused on providing access to higher education across a vast network of institutions; however, there has been a shift from an access to a completion agenda (Sydow & Alfred, 2013). Sydow and Alfred explain that although the number of community colleges has increased substantially as a result of the access agenda, graduation rates have declined. Going forward, institutions will be accountable for completion as well as access.

A higher education leader's position regarding remediation and college readiness should be driven by the mission and vision of the institution as well as the environment in which the institution operates. Again, the role of community colleges has historically been to provide open access for all students. Open access is not solely defined as an open door. Vaughan (2006) argued that access and equity includes having a college within commuting distance of most students, choices of courses of study, providing support services like counseling, advising and financial aid, as well as providing the skills necessary to succeed at college. Remedial education provides skills that are necessary for a student's success.

The environment in which the institution operates also matters. Students from institutions that serve students from the lowest income quartile experience more obstacles in achieving educational goals for various reasons. These students need education and workforce training in order to respond quickly to economic needs that fall within the mission of a community college. Administrators at community colleges need to respond to the college access challenge for students in the lowest income quartile. Strategies that

community college administrators can take to better serve these students and provide access include (1) improve remediation success, and (2) initiate partnerships with high schools to reduce the need for remediation.

Improve Remediation Success

Providing remediation for students is an increasing need at higher education institutions and requires many resources. However, Bettinger and Long (2008) found that successful remediation decreases the likelihood of a student dropping out of college, and increases the likelihood of a student getting a timely degree within four to six years. Also, there is a positive correlation between successful degree completion and the successful completion of a developmental mathematics course (Fike & Fike, 2008). Many students who graduate from high school need remediation, and if institutions can successfully remediate incoming college students, those students are more likely to succeed at college.

Institutions cannot provide access without providing remediation; therefore, administrators should focus on improving success in remedial courses. Attewell, Lavin, Domina, and Levey (2006) studied the academic backgrounds of students in remedial mathematics courses and found that there is a wide gap in ability between strong and weak remedial students. The study also found that a majority of students who enroll in a remedial mathematics course fail or withdraw at least once (Attewell et al). If administrators can use resources to improve success in these remedial courses, then other resources will be released because fewer students will be repeating the remedial courses.

Partnering with High Schools

The gap between high school and college preparation is widening as more and more students require remediation. In a time of limited resources, higher education

administrators should partner with high schools to close this gap. Critics of the open door policies at community colleges are concerned about curricular issues at two-year colleges because of the increased need for remediation (Hendrick, Hightower, & Gregory, 2010). However, in order to provide access, institutions must provide students with the prerequisites necessary for a college curriculum. Timing of remediation and design of appropriate course prerequisites are vital to positive education outcomes (Bettinger & Long, 2008, Johnson & Kuennen, 2004).

If high schools can work with college bound students to better prepare them for a college-level curriculum, then the institutions will have to spend less resources to provide prerequisites upon entry to college. The California Department of Education provided an early assessment program between high schools and colleges (Knudson, Zitzer-Comfort, Quirk, & Alexander, 2008). In this program, students were tested in mathematics, reading and writing skills during their junior year of high school. Then, during their senior year of high school, students received remediation in order to prepare them for a college-level curriculum (Knudson et al). Although the need for remediation still existed, the level and amount of remediation was reduced (Knudson et al). If the problem of college readiness is addressed at the high school level, less remediation will be needed at the college level. Although the mission of the community college has always included access, it is important that community college leaders expand their focus to a completion agenda.

Business Models in Higher Education

The current landscape of higher education demands an increase in enrollment and an increase in accountability for student success, while navigating a sharp decrease in

funding that threatens the sustainability of those colleges not willing to change

(Tschechtelin, 2011). Enrollment increases are needed to meet the demand for qualified

workers (McQuade, 2011). As the higher education environment shifts, colleges need to

become more entrepreneurial, including community colleges (Flannigan, Green, & Jones,

2005). Flannigan, Green, and Jones defined entrepreneurialism in the community college

as an infusion of efficiency and innovation that creates synergy, resulting in flexible,

highly responsive, self-sustaining organizations that are less reliant on outside support for

survival.

Legislative Action

One of the first things that President Barack Obama did when he entered office

was to propose major reform to the system of higher education. Dickeson (2010) argued

that with the Higher Education Opportunity Act of 2008 (HEOA), Congress was shifting

the oversight of higher education from self-regulation to Federal regulation. This was

done by a significant increase in institutional reporting requirements. The HEOA created

significant cost to colleges and universities while, at the same time, calling for

institutions to stop increasing tuition and fees to make college affordable (McPherson &

Shulenburger, 2008). In order to make tuition and fees affordable, colleges must find

ways to be more efficient and also look for other areas to find revenue outside the

historical revenue streams.

The Commonwealth of Virginia took similar action by passing the Virginia

Higher Education Opportunity Act of 2011, also known as the Top Jobs for the 21st

Century Bill (TJ21). TJ21 included requirements for institutions to increase enrollments

while keeping college affordable and accessible by reining in tuition cost (McQuade,

2011). In addition to creating a statewide goal of 100,000 additional degrees awarded by the year 2025, this legislation also included funding incentives for creating jobs in high demand areas and incentives for increased retention and completion rates. With the passage of these major legislative actions, a clear message was sent to the higher education community: colleges are responsible for their students, and they must provide a return on investment for both the students and the state.

Neoliberal Policies

Neoliberalism is a term that is often used by proponents of the "liberal arts" institutions. Boyd (2011) defined neoliberalism as politics that are market driven and place market values above democratic citizenship. Boyd questioned whether neoliberal policies have moved the focus of community colleges from the good of the people to the good of corporations. When colleges abandon programs in the arts because corporations are not looking for arts graduates, are colleges placing the needs of the corporations above the needs of the people?

This is a question that needs further exploration throughout all of higher education. Kirp (2003) looked at the top-ranked University of Virginia, Darden Graduate School of Business, when evaluating the privatization of higher education. Kirp argued that as Darden sought non-traditional revenue streams in order to move up in the college rankings, corporate training contracts became a focal point. As the graduate school entered into these contractual agreements, funding became an underlying principle. Kirp wrote:

> In its eagerness to enter the elite national ranks, Darden has made the pursuit of money its main objective. In doing so, it has deemphasized research as faculty

energy that elsewhere would be devoted to scholarship and theory is sapped by corporate training needs. (p. 144)

Kirp goes on to explain that if business colleges can do this, other schools will likely follow. This change represents more than just movement away from liberal arts education; it is a shift in what students and society want from higher education.

As the higher education market changes, community colleges are positioned well to be leaders in a neoliberal movement. Ayers (2005) explained that neoliberal ideology is ingrained in the community college mission with its close ties to the community and the focus on teaching. Kirp (2003) asked if the good of the people is sacrificed, does higher learning becomes just another consumer good? However, students are the customers in the higher education market, a concept that proprietary schools have capitalized on as evidenced by their increasing market share.

Affordability and Proprietary Colleges

Legislative action that requires increased transparency, accountability and affordability creates a financial burden on colleges and universities that are reliant on state appropriations. From the fall of 2000 to the fall of 2009, proprietary colleges increased their enrollments by 1.13 million with mean tuition and fees at $13,935 per year in 2009 (Baum & Payea, 2011). Baum and Payea found that in 2009 54% of the students who enrolled in proprietary colleges earn less than $40,000, compared to 35% of students in public two-year colleges with these earning levels. The comparable average tuition and fees for public community colleges was $2,713 per year in 2009. Student choice is an important factor in determining affordability. Baum and Payea's study illustrates how some of the lowest income families are choosing schools that are much

more expensive than the available public community colleges. In 2007-2008, 75% of students at for-profit institutions were non-traditional compared to only 36% at public two-year colleges (Baum & Payea). Proprietary colleges are meeting a need that is not being met at public institutions. Proprietary colleges have mean costs of $11,222 higher than public two-year colleges. As a result, many students, mainly non-traditional in age, are enrolling at proprietary institutions at relatively higher rates.

One reason students choose propriety schools is because they can continue to work full-time while attending school full-time because of the variety of course offerings, accelerated, and distance programs. Unger (2007) observed that proprietary schools expanded their offerings and delivered accredited education onsite and online in largely practical fields, while adapting to the curriculum demands of regional and local industries. Proprietary colleges are completely market driven and adjust quickly to changes in regional and local industry demands, which means that the programming they offer is always highly demanded by students. Students are willing to pay more because the programming is convenient to students and relevant to their employment. They can continue to work while pursuing a degree, which means that wages, along with financial aid, makes college more affordable. Even though the tuition and fees at the proprietary schools are higher, affordability may be perceived as lower because the convenient programming allows students to continue to work.

Affordability is relative to the individual student. Tuition and fees at institutions vary widely across the sectors of higher education (Baum & Payea, 2011, McPherson & Shulenburger, 2008). The public discourse about the high cost of college education focuses on the general higher education environment and how tuition and fees overall are

increasing. This discussion could cause some worthy students to re-think pursuing higher

education. However, enrollments have grown across all sectors of higher education, up

26% between 1997 and 2007 (National Center for Education Statistics, 2008). The largest

growth sector is the proprietary sector with its high cost; therefore, lower cost institutions

like community colleges must adopt an entrepreneurial business model in order to

compete for enrollments with the proprietary schools.

Entrepreneurship in Higher Education

The thought of operating a college like a business is often foreign and frightening

to members of the academic world. In the past, privatization reforms have been

insufficient because they have focused for the most part on the nonacademic portion of

the higher education enterprise (Dickeson, 2010). Dickeson argued that historically,

higher education has been inefficient and wasteful by continuing low demand academic

programs without evaluation, simply because they have always existed. He argued that

colleges and universities should prioritize resources to support the programs most

demanded by industry and by students. The criteria that should be used to determine if a

program should be created should be the same criteria that are used to evaluate existing

programs. Dickeson provided a suggested list of these criteria as:

1. History, development and expectations of the program

2. External demand for the program

3. Internal demand for the program

4. Quality of program inputs and processes

5. Quality of program outcomes

6. Size, scope and productivity of the program

7. Revenue and other resources generated by the program

8. Cost and other expenses of the program

9. Impact of justification of the program

10. Opportunity analysis of the program

If a new or existing program cannot be justified by applying these criteria, then it should be discontinued or should not be started.

Implementing program criteria like those suggested by Dickeson could help to create an entrepreneurial culture across campus. Martin-Lopez (2009) suggested that two-year colleges should encourage an entrepreneurial culture at the institution that will result in better service to students, and better assessment outcomes. In addition, the entrepreneurial college will provide a better product, a degree that would be marketable for the student after graduation. This concept relies on the theory that colleges and universities exist as a means to better employment. Calderone (2005) conducted a qualitative study that found that administrators at institutions across higher education believe that there was an unspoken rule that exists between higher education and the public. The unspoken rule speaks to the ever-shifting negotiations that ensure that public colleges meet societal needs and that state governments support the institutions through academic freedom, tax exemption, and state appropriations. American society has demonstrated through democratic elections that they want more accountability and return on investment from higher education, and it is up to the higher education institutions to make the necessary changes to show accountability and return on investment for students. The literature surrounding neoliberalism and entrepreneurial colleges support the theory

that pressures on community colleges are causing stakeholders to look for efficiencies and the innovative spirit that is often found in the for-profit industry.

Entrepreneurial Characteristics in Community Colleges

The concept of entrepreneurialism in community colleges is not a new concept. Peck (1983) was one of the initial writers to explore the entrepreneurial college presidencies when he looked at nineteen small, independent colleges. Peck argued that independent colleges were entrepreneurial enterprises where presidents served as Chief Executive Officers with a profit-driven mission. The study revealed a similarity between future-focused college administration and economic entrepreneurship. Esters (2007) evaluated community colleges based on the five dimensions of Clark's (1998) entrepreneurial college model: (1) expanded developmental periphery - public and private partnerships, (2) simulated academic heartland—look beyond traditional models, (3) integrated entrepreneurial culture—embracing change, (4) strengthened steering core—merging collegial academic culture with managerial culture, and (5) diversifying the funding base—diversified funding portfolio with less reliance on state appropriations.

Using these five dimensions, Esters (2007) found the following:

1. *Expanded developmental periphery.* Most colleges were beginning to expand external partnerships, and although they were in the early stages, their practices for expanded developmental periphery included using data to drive decisions regarding business and workforce needs, collaboration with healthcare providers to determine training shortages, and partnering with public schools to develop relationships and guaranteed admissions for students.

2. *Stimulated academic heartland.* Presidents were able to look beyond traditional models by working closely with business and industry partners.

3. *Integrated entrepreneurial culture.* Presidents expressed that they had had more success in sub-units within the organization than with the overall campus culture. Some examples of strategies for integrating entrepreneurial culture include: (a) communicating often with people at all levels of the college, (b) establishing values and principles and getting others to buy into them, (c) including entrepreneurialism in the strategic plan, and (d) getting the support of the governing board

4. *Strengthened steering core.* To strengthen the steering core, presidents described practices that (a) restructure the organization to allow calculated risk, (b) align the structure with the strategic goals and vision of the institution, and (c) restructure the college board of trustees to allow for its active involvement and support of the entrepreneurial mission.

5. *Diversified funding base.* Esters' (2007) qualitative analysis showed that community college presidents from one southeastern state mainly used public/private partnerships as well as private fundraising campaigns to diversify the funding base and become less reliant on state appropriations. Some practices by these presidents included (a) use of a well-trained foundation board, (b) use of consultants for fundraising campaigns, (c) building relationships with key community people (friend raising), (d) matching state funds with private funds, (e) pursuing grants, and (f) developing profit centers.

Although Clark (1998) identified five dimensions of the entrepreneurial college model, Esters (2007) research found that there was some overlap in the community college presidents' responses to questions. Within the five dimensions, community college presidents must build strong external relationships, create an entrepreneurial culture within the institution, and create new revenue streams through private fundraising and entrepreneurial activities (auxiliary enterprises) on campus. Having a strong community college foundation that supports this entrepreneurial spirit is critical. As public community college presidents begin to run colleges like businesses using the entrepreneurial business models, they are acting more like the proprietary schools, which have been viewed as an inferior business model by the academy (Unger, 2007).

Disruptive (Business Model) Innovation

Disruptive innovation is defined as a different product or service that is offered as an alternative to an existing product or service (Christensen & Horn, 2008). These innovations start out as inferior products but appeal to a different market. Sometimes the products or service are more simple or affordable. Eventually the new product or service improves and begins to disrupt the original market (Christensen & Horn, 2008).

Disruptive Innovation in Business

Markides (2006) studied the work of Christensen and explained that, originally, the concept of disruptive innovation was thought of as strictly technological innovation, but over time the concept widened to include products and business models. Business model innovation is the discovery of a fundamentally different business model in an existing business. Markides (2006) highlighted competition between Amazon and Barns and Noble as an example. The two companies compete as retail booksellers but in

fundamentally different ways. In this example, Amazon would be the disruptive business model. Retail booksellers have existed in a market for many years, but Amazon looked at this industry through a different lens that completely revolutionized the industry. Markides (2006) explained that disruptive business model innovators do not discover new products or services; they simply redefine what an existing product or service is, and how it is provided to the customer. Amazon did not discover bookselling; it redefined the process of buying books.

Disruptive Innovation in Education

Christensen, Horn, Aldera and Soares (2011) argued that disruptive innovation is needed to change the business model in higher education. An example of a disruptive innovation already spreading through higher education is online learning. Christensen et al. (2011) explained that online learning started out as an inferior product but has grown and improved quickly. In 2003, 10% of enrolled students took at least one online class, and this number grew to 25% in 2008, 30% in 2009 and was projected to be 50% by 2014 (Christensen et. al., 2011). Over time, the online product has improved and more and more students are demanding online courses. These courses are taking more and more market share from traditional lecture courses. New higher education products like online learning and hybrid courses are greatly impacting the higher education industry. Another example of disruptive innovation is the increasing higher education market-share taken by for-profit institutions. Although some believe that these institutions offer an inferior product, their recent growth suggests that they are meeting the needs of a market that was previously untapped (Breneman, Pusser, & Turner, 2006). Christensen et al. (2011)

suggested that disruptive innovation presents an opportunity to rethink many of the age-old assumptions in higher education.

Sydow and Alfred (2013) investigated community colleges and disruptive innovation. Their research question was: Were community colleges a disruptive business model innovation when they were introduced to the higher education industry? Their research concludes that even though community colleges changed the higher education industry by virtue of open access, and a community and industry focused mission, community colleges ultimately mirrored the business practices of others in the higher education industry and thus were not a disruptive innovation.

Conclusion

The literature indicates that the higher education landscape has brought about changing roles for community colleges. As the higher education industry shifts from an access agenda to a completion agenda and state appropriations continue to decrease, community college presidents are forced to adopt entrepreneurial business models. The literature also suggests that propriety higher education institutions have a distinct profit driven business model that is viewed negatively by the academy. Very little literature exists investigating how the changing public community college business model is adopting practices that are staples to the proprietary institutional business model, or if the propriety business model could be considered a disruptive innovation in higher education.

This study seeks to answer the following questions.

1. Do community college presidents in Virginia believe that reduction in state support is causing their colleges to adopt entrepreneurial business models?

2. Is there a significant relationship between community college presidents'
    background (academic, political, or business) and the adaptation of
    entrepreneurial business models?

3. Do community college presidents in Virginia believe that entrepreneurial business
    models are a disruptive innovation in higher education?

4. Is there a significant relationship between community college presidents'
    background (academic, political, or business) and the belief that entrepreneurial
    business models are a disruptive innovation in higher education?

CHAPTER 3

METHODOLOGY

This chapter provides a discussion of the methodology used to conduct this two-phase, sequential, explanatory research design. This chapter will outline the purpose for the study, the research questions, the research design, a description of the setting, description of the subjects, the instrumentation, data collection procedures, data analysis, and conclusion. Phase I will describe the quantitative procedures and phase II will discuss qualitative procedures in this mixed methods study.

Purpose of the Study

Most institutions of higher education operate in a collegial culture to foster academic freedom and faculty autonomy (Bergquist & Pawlak, 2008). This type of culture limits innovative and efficient business processes because of a lack of quantifiable accountability (Bergquist & Pawlak, 2008). Although there are some examples of innovation in community colleges, innovation is not a cultural norm in higher education (Wallace, 2005). Sydow and Alfred (2013) found that community colleges are positioned well to adopt innovation because of their structure and ability to make changes based on market demand. In times of shrinking public funds, community colleges should find ways to be more efficient and stretch resources to fulfill the institutional mission. In this study, I sought to find out to what extent community college presidents perceive their colleges are adopting entrepreneurial business models. I also explored if community college presidents believe these practices are a disruptive innovation in higher education. A better understanding of community college presidents' views on entrepreneurial practices can help shape practices for future community college leaders.

Research Questions

1. To what extent do community college presidents' in three states in the Southern Association of Colleges and Schools Commission on Colleges (SACS COC) perceive implementation of entrepreneurial business practices at their community colleges?

2. Among the presidents, is there a significant difference in the level of entrepreneurial business practices based on institutional characteristics (age, time in presidency, gender, race, & education)?

3. Among the presidents, is there a significant difference in the level of entrepreneurial business practices based on the state that their community college operates?

4. Among the presidents, is there a significant difference in the level of entrepreneurial business practices based on the institution's size?

5. Do community college presidents believe that the increased adoption of entrepreneurial business practices is a disruptive innovation (innovation that is viewed as inferior when introduced but over time gains market share and eventually takes the market) in higher education?

Research Design

A two-phase, sequential, explanatory research design will be used for this study. Creswell (2009) defines sequential, explanatory, mixed-method strategy as research characterized by the collection and analysis of quantitative data in the first phase followed by the collection and analysis of qualitative data in a second phase that builds

on the results of the initial quantitative results. This research design is used to gain a better understanding of findings from quantitative analysis.

In phase I of this study, community college presidents were sent an online survey to determine if they are adopting entrepreneurial business practices. Differences in community college presidents' perceptions based on president's characteristics, the state in which the institution is located and size of the institution. Phase II of the study used in-depth individual interviews with community college presidents to gain a better understanding of the reasons presidents believe entrepreneurial business practices are being adopted, considered, or rejected.

Setting

The setting for this study was community colleges in the Southern Association of Schools and Colleges, Commission on Colleges (SACSCOC) accrediting region. A sample of three states within the SACSCOC region (Virginia, North Carolina, and Louisiana) was selected because of differences in structure, size, setting and financial environment. These three states give a good sample of all the states represented in the SACSCOC region containing both large and small, rural and urban community colleges. Virginia and Louisiana both have strong centralized systems with fewer community colleges, and North Carolina has many community colleges with a decentralized system, making the three states a good representation of community colleges in the SACSCOC region.

Louisiana

The Louisiana Community and Technical College System (LCTCS) is made up of 13 community and technical colleges enrolling 101,379 students in 2013

(www.lctcs.edu). The LCTCS is the most geographically diverse system of higher education in the state of Louisiana with colleges in rural and urban areas across the state. The LCTCS mission is to provide support for the community and technical colleges in the state providing associate degrees, technical diplomas, and industry-based certificates in programs that are aligned with business and industry and local economies, which lead students to good paying, middle class jobs (www.lctcs.edu, 2014). The LCTCS is committed to providing access to quality educational programs and lifelong learning by eliminating geographic, financial, and scholastic barriers to postsecondary educational programs.

North Carolina

The North Carolina Community College System is made up of 58 community colleges enrolling approximately 840,000 students in 2011. This enrollment accounts for 1 in 9 North Carolina Citizens 18 or older. All community colleges in North Carolina are within a 30 minute drive of its citizens. The North Carolina Community College mission is "to open the door to high-quality, accessible educational opportunities that minimize barriers to post-secondary education, maximize student success, and develop a globally and multi-culturally component workforce, and improve the lives and well being of North Carolina citizens" (www.nccommunitycolleges.edu, 2014).

Virginia

The Virginia Community College System includes of 23 community colleges enrolling 279,971 students in 2013 (www.vccs.edu) . Colleges are located throughout the state of Virginia. Campuses range in size and setting with some colleges having as many as six campuses. Potential students within the borders of Virginia will never be more than

30 miles from a VCCS campus. Presidents of the VCCS colleges report to a chancellor

for the VCCS system, but each institution has its own administration and accreditation.

Programs vary in the different VCCS colleges, but the system has a common course

numbering system that allows credits to transfer between schools seamlessly. The VCCS

mission is "to contribute to economic and civic vitality of the commonwealth and its

international competitiveness." "Virginia's Community Colleges commit to increasing

access to affordable education and training for more individuals so they acquire the

knowledge and skills to be successful in an ever-changing global economy"

(www.vccs.edu, 2014).

Variables

The dependent variable was community college presidents' perceptions of

entrepreneurial business practices. Using the five dimensions of practices taken from the

Clark's (1998) entrepreneurial college model, the dependent variables will be

operationalized by the total number of entrepreneurial practices carried out by the

presidents within their respective community colleges. The five dimensions are (a)

expanding the developmental periphery, (b) stimulating the academic heartland, (c)

integrating entrepreneurial culture, (d) strengthening the steering core, and (e)

diversifying the funding base.

This study was composed of seven independent variables. Five of the independent

variables were described as dichotomous personal characteristics of the community

college president (i.e. age, time in presidency, gender, race, and education). Age in this

research referred to the age of the community college president and was represented by

under 55 and 55 or older. Time in the presidency in this research referred to the period of

time the community college president had served in the position of president at the current institution. This was also represented by presidents serving less than 6 years, and 7 years or more. Gender in this study was represented by either male or female. Race referred to the race of each community college president and was represented as Caucasian or Ethnic Minority. For the purposes of this study, education referred to the highest earned degree held by the community college president, including terminal degree or not having a terminal degree.

Two of the independent variables were described as institutional characteristics. The two independent variables described as institutional characteristics were institutional state and institutional size. Institutional state refers to the geographic location in which the community college is located. For the purpose of this study, institutional size was based on the number of annual FTEs earned by the colleges in the categories of under 5,000, 5,001-10,000, 10,001- 15, 000, 15,001-20,000, 20,001-25,000 and over 25,000.

Population and Sample

The population for this study includes 94 community college presidents across three states in the SACSCOC accreditation region (Louisiana, North Carolina, and Virginia). In phase I of this study, the Community College Presidents' Entrepreneurial Practices Survey was emailed to all 94 community college presidents in these three states. Louisiana, North Carolina, and Virginia were selected as the setting for this study because they have varying structures in the state systems of community colleges, and all three states have institutions with different sizes and funding models.

In phase II, a purposeful sample was taken of two college presidents from Virginia and North Carolina, and one college president from Louisiana. Creswell (2008)

defines purposeful sampling as a process of sampling whereby a researcher purposefully selects individuals and sites to understand a central phenomenon. A purposeful sampling procedure is selected to allow me to strategically select a small sample that will be representative of the three states as well as other community colleges in the SACSCOC region. This sample will allow me to gain a deeper understanding as to the why behind entrepreneurial practices among community college presidents in the three states.

Instrumentation

Phase I. Phase I of this study consisted of 35 survey items emailed to the community college presidents in the three selected states. Esters (2007) developed the survey based on Clark's Entrepreneurship College Model (Appendix A). The 48-question survey was developed by Esters (2007) based on two surveys developed by Kirby (2005) and McLennan (1996). Permission to use Esters' survey has been sent (Appendix B) to adhere to copyright release provisions. Esters developed the survey to fit into each of the five dimensions of Clark's (1998) entrepreneurial college model. To increase the response rate, I eliminated 18 of the survey questions from Esters' survey. Five questions from the survey remain for each of Clark's (1998) dimensions. A panel of experts reviewed the survey document to ensure that it has adequate content validity. The survey uses a Likert scale system to ask participants to select one or more answers from a list of questions. Each item on the Entrepreneurial Practices Survey required participants to respond as follows: 5 (very successful), 4 (moderately successful), 3 (minimally successful), 2 (no distinctive success), 1 (not successful at all), or 0 (non-applicable), using a Likert-type scale of 0 to 5.

Esters (2007) organized the questionnaire according to the five dimensions of Clark's (1998) Entrepreneurial College Model. There are three parts to the questionnaire. Part I includes five questions representing a demographic profile of the president. Part II consists of three questions representing a demographic profile for the institution the president represents. Part II of the survey consists of 39 questions representing the five dimensions of Clark's Entrepreneurial College Model.

Phase II. The researcher designed an interview schedule to be used as the instrumentation for this qualitative phase of this study. In the semi-structured interview, the same open-ended questions were asked to two presidents in each state included in phase I of the study. Each telephone interview was designed to last between 10 to 15 minutes and asked 3 open-ended questions. Follow-up questions were asked based on the response to the structured questions. In this study, the researcher-developed interview schedule is the best instrument to answer the research question: Do community college presidents believe that the increased adoption of entrepreneurial business practices is a disruptive innovation in higher education?

The instrument allows the presidents to articulate in their own words their opinion regarding entrepreneurial practices among community colleges based on the results in phase I of the study.

In order to ensure that the interview schedule is clear, the instrument was field-tested with a community college president not included in the sample. In addition to offering input about the interview schedule, the president was asked:

1. Is the interview schedule too long? (If yes, what would you suggest be dropped?)

2. Are the directions and wording clear and unambiguous? (If not, please note directions or words that are unclear?)

3. Is the format conducive to ease of response?

4. Do some of the questions need to be rephrased or dropped?

5. Are there additional questions that I should ask? (If yes, which questions would you suggest?)

The researcher analyzed the additional questions asked to the five pilot respondents and made adjustments to the interview protocol based on that feedback.

Validity and Reliability

Validity and reliability are impacted by the manner and consistency with which the researcher delivers the interview questions. Waltz, Strickland, and Lenz (2010) explained that the timing, duration, and scheduling of the interview in relation to other demands on the interviewer and the respondents affect the information obtained. Interviewees who are rushed or have other obligations that need attention during the interview impact the validity of the responses. In order to improve validity, the researcher will schedule the interviews one month in advance and will send a reminder email one week and also one day in advance of the scheduled interview. The interviewees will be notified how long each interview will last, and the researcher will practice the interviews during the pilot study to ensure that the interview does not go beyond the scheduled time. All interviews will be conducted over the telephone with the respondent to make the interview process as easy and seamless as possible.

Reliability will be improved by the researcher restating all the respondents' answers back to the respondent to ensure that what was said in answer to the question is

what the president meant to say. All interviews will be recorded and transcribed. A qualitative research expert will be asked to score and code the transcription to ensure that the researcher and the expert identify the same patterns and themes in the data, thus improving interrater reliability.

Data Collection Procedures

Phase I. The Entrepreneurial Practices Survey was web-based. An email was sent to participants informing them of the survey and its purpose. The email included a link to the SurveyMonkey website (see Appendix C). A reminder email was re-sent to presidents who did not respond to the survey within two weeks (see Appendix D). The responses were downloaded from SurveyMonkey into a spreadsheet, checked for accuracy and completeness, and then imported to Statistical Package for the Social Sciences (SPSS) for analysis.

Phase II. This study used an interview protocol with selected community college presidents in order to address research question five: Do community college presidents believe that the increased adoption of entrepreneurial business practices is a disruptive innovation in higher education? Telephone interviews were organized with each participating community college presidents, and the same interview protocol was used for each of the respondents. The interviews occurred on November 30 and December 1, 2015. Interview questions were open-ended to allow for candid responses to the interview questions. Once the respondent finished answering a question, the researcher restated and summarize the answer to ensure the validity of the response. All interviews were recorded and transcribed.

Data Analysis

Phase I. The quantitative data collected in phase I through the Entrepreneurial Practices Survey in SurveyMonkey was analyzed using a spreadsheet and SPSS prepared in order to produce both descriptive and inferential statistics. Descriptive statistics were used to describe the participants (frequencies and percentage) and to determine the extent to which community college presidents are engaged in entrepreneurial behaviors (means and standard deviations). Inferential statistics in the form of an Analysis of Variance (ANOVA) was used to determine the strength of the relationship between the community college presidents' perceptions of entrepreneurial business practices and the dependent variables, including (a) President's characteristics, (b) institutional state, and (c) institutional size. The ANOVA required a level of significance $p < .05$.

Phase II. In order to generate patterns and themes in the qualitative data, the information from the recorded interviews was coded. Roberts' (2010) five-step process for analyzing interview transcripts was used as follows.

Step 1: Initial Reading of the Transcripts

After the 6 interview recordings were transcribed, the researcher read the transcripts to identify patterns and themes.

Step 2: Organization and Coding of Responses

The researcher created a master coding list of response categories. Within each research question, the researcher counted the frequency in which each code appeared.

Step 3: Review of Total Transcripts and Final Coding

Using the master coding list, the researcher again coded the full transcript, noting when multiple references were made in each category to finalize the coding list.

Step 4: Completion of Data Analysis

I analyzed the results of each group based on interview question, stakeholder group, and institution to present the themes, patterns, and categories for the research questions.

Step 5: Review of Total Transcript to ascertain Validity of Findings

The researcher then completed a final review of the total transcripts to ensure that the findings, themes and patterns were consistent with the data collected in the interview. Then, the findings were compared to the literature to see what findings were supported by the literature.

Conclusion

Chapter 3 outlines the description of a two-phased, sequential explanatory mixed-methods research design. This study was sequential explanatory as it used quantitative method to measure entrepreneurial practices in which community college presidents in three SACSCOC states engaged, followed by a qualitative method to explain if presidents believed this entrepreneurial business model phenomenon was a disruptive innovation in higher education. This chapter also describes the population and sample, the participants, data collection and analyses procedures for each phase of the study.

CHAPTER 4

RESULTS

The purpose of this chapter is to examine the entrepreneurial business practices of community college presidents in three Southern Association of Colleges and Schools Commission on Colleges and Schools. The chapter is divided into sections: (a) the demographic profile of the participants, (b) institutional characteristics of the participants, (c) a quantitative analysis of the respondents' responses to the questionnaire, (d) comparison of entrepreneurial practices, and (e) a qualitative examination of individual presidents' perception of entrepreneurial practices at their respective community colleges.

Demographic Profile of Participants

As part of phase I of this study, questions 1-7 of the questionnaire asked presidents about personal and institutional characteristics. Approximately 62% (n = 34) of the presidents were 55 years of age or over, while approximately 38% were under 55. Consistent with participants in other related studies (Esters, 2010, Vaughan & Weisman, 2001), approximately 91% of respondents were Caucasian, while only 9% were other races. Gender was also reported with 71% of respondents being male and 29% being female. Approximately 56% of the respondents reported being a president fewer than 7 years, while 44% have been a president 7 or more years. The large majority of respondents hold a terminal degree at 88%. Only 12% of responding presidents do not have a terminal degree.

Institutional Characteristics

Questions 8 and 9 of the questionnaire asked presidents to indicate in which state their community college is located and the size of the institution. Approximately 68% of respondents came from North Carolina (response rate of 43%), 29% came from Virginia (response rate of 43%), and 3% came from Louisiana (response rate of 7%).

Most participants were leaders of small institutions. Seventy-four percent of participants' colleges enrolled fewer than 5,000 full-time equivalent students (FTE), 15% were between 5,001 and 10,000 FTE, 9% were between 15,001 and 20,000, and the enrollments of 3% was in excess of 25,000 students.

Entrepreneurial Practices of Participants Results

Phase I

The independent variable in this study, based on its purpose and conceptual framework, is presidents' perception of entrepreneurial practices in community colleges in the SACSCOC region. Phase I of this study focused on the research questions;

1. To what extent do community college presidents in three states in the Southern Association of Colleges and Schools Commission on Colleges (SACS COC) perceive implementation of entrepreneurial business practices at their community colleges?

2. Among the presidents, is there a significant difference in the level of entrepreneurial business practices based on institutional characteristics (age, time in presidency, gender, race, & education)?

3. Among the presidents, is there a significant difference in the level of entrepreneurial business practices based on the state that their community college operates?

4. Among the presidents, is there a significant difference in the level of entrepreneurial business practices based on the institutions size?

To address these questions, data were collected using the sequential, explanatory, mixed methods research design described in chapter three. The results for these questions were grouped into the five dimensions of Clark's (1998) entrepreneurial college model.

Strengthened Steering Core

Clark (1998) described leaders who strengthen the steering core as those who (a) restructure the organization to allow calculated risk, (b) align the structure with the strategic goals and vision of the institution, and (c) restructure the college board of trustees to allow for its active involvement and support of the entrepreneurial mission.

Questions 10 through 13, as well as questions 34 and 35 focus on the level at which presidents perceive their institutions to be strengthening the steering core. Respondents to this questionnaire scored a grand mean of 3.0 with a standard deviation of .87. Based on the questionnaire, a score of 3.0 indicates the president's perception of success implementing strategies around strengthening the steering core was *moderately successful* (n – 93). A low standard deviation indicates that there was little variation in the responses from presidents. Table 1 illustrates the distribution.

Table 1

Presidents' Perception of Success Strengthening the Steering Core

Strengthening the Steering Core	Minimum Value	Maximum Value	Mean	Standard Deviation
10. How successful have you been at changing the organizational structure of your college in an effort to build an entrepreneurial organization?	1	4	3.1	.80
11. How successful have you been at developing job rotation programs for employees so that they are adaptable to change?	1	4	2.5	.94
12. How successful have you been at creating new programs and services that are adaptable to the mission of your college?	1	4	3.3	.74
13. How successful have you been at fusing new managerial values into the academic units such that all levels of the institution develop an entrepreneurial culture?	1	4	2.8	.89

34. How successful have you been at orienting your college board to the concept of entrepreneurial leadership?	1	4	2.9	.88
35. Has your college board been supportive of your entrepreneurial efforts?	1	4	3.4	.69
Total Score: Strengthening the Steering Core	1	4	3.0	.87

Diversified Funding Base

Esters' (2007) qualitative analysis reported that community college presidents from one southeastern state used private fundraising campaigns to diversify the funding base and become less reliant on state appropriations. Some practices by these presidents included: (a) use of a well-trained foundation board, (b) use of consultants for fundraising campaigns, (c) building relationships with key community people (friend raising), (d) matching state funds with private funds, (e) pursuing grants, and (f) developing profit centers. Questions 14 through 18 of the questionnaire were designed to capture presidents' practices implemented to diversify the funding base. The results show a grand mean of 2.88 with a standard deviation of .99 for these questions. A score of 2.88 indicates that the president's perception of success in implementing strategies around diversifying the funding base was *moderately successful* (n = 93). A low standard deviation indicates that there was little variation in the responses from presidents. Table 2 shows the distribution.

Table 2

Presidents' Perception of Success Diversifying the Funding Base

Diversifying the Funding Base	Minimum Value	Maximum Value	Mean	Standard Deviation
14. How successful have you been at using a college foundation to raise funds in support of college programs and/or services?	1	4	2.97	1.07
15. How successfully have you used a special unit/department for innovation and entrepreneurship development?	1	4	3.0	.86
16. How successful have you been at contracting out college employees to provide training programs and/or workshops with business/industry?	1	4	3.0	.87
17. How successful have you been at using your college staff to write grants on a full-time or part-time basis?	2	4	3.4	.76
18. How successfully have you used an alumni association to raise funds in support of college programs and/or services?	1	4	1.9	.78
Total Score: Diversifying the Funding Base	1	4	3.0	.87

Stimulated Academic Heartland

Clark (1998) described the concept of a stimulated academic heartland as occurring when presidents are able to look beyond traditional models by working closely with business and industry partners. Questions 19 and 20 address the question of participants' success at achieving a stimulated academic heartland with a grand mean score of 2.48 and a standard deviation of .74. A score of 2.48 indicates that the president's perception of success in implementing strategies around strengthening the steering core was between *minimally successful* and *moderately successful* (n = 93). A low standard deviation indicates that there was little variation in the responses from presidents. Table 3 illustrates the distribution.

Table 3

Presidents' Perception of Success Stimulating the Academic Heartland

Stimulated Academic Heartland	Minimum Value	Maximum Value	Mean	Standard Deviation
19. How successful have you been at ensuring academic departments embrace entrepreneurial change?	1	4	2.5	.68
20. How successful have you been at linking entrepreneurial programs with traditional academic programs?	1	4	2.5	.81
Total Score: Stimulated Academic Heartland	1	4	2.5	.74

Integrated Entrepreneurial Culture

An integrated entrepreneurial culture is a culture that embraces entrepreneurial changes (Clark, 1998). Some examples of strategies for achieving an integrated entrepreneurial culture include: (a) communicating often with people at all levels of the college, (b) establishing values and principles and getting others to buy into them, (c) including entrepreneurialism in the strategic plan, and (d) getting the support of the governing board (Clark). Questions 21 and 22 were designed to measure presidents' perceptions of their success in achieving an integrated entrepreneurial culture. The grand

mean score was 2.89 with a standard deviation of .76. Based on the questionnaire, a score of 2.89 indicates that the president's perception of success in implementing strategies around integrating entrepreneurial culture was *moderately successful* (n = 93). A low standard deviation indicates that there was little variation in the responses from presidents. Table 4 shows the distribution.

Table 4

Presidents' Perception of Success Integrating Entrepreneurial Culture

Integrated Entrepreneurial Culture	Minimum Value	Maximum Value	Mean	Standard Deviation
21. How successful have you been at developing an organizational culture that embraces change?	1	4	3.0	.72
22. How successful have you been at facilitating a college-wide appreciation for an entrepreneurial culture at your college?	1	4	2.8	.80
Total Score: Integrated Entrepreneurial Culture	1	4	2.9	.76

Expanded Developmental Periphery

Clark (1998) described practices for achieving an expanded developmental periphery as those that use data to drive decisions regarding business and workforce

needs, collaborate with healthcare providers to determine training shortages, and partner with public schools to develop relationships and guaranteed admissions for students. Clark argued that these strategic partnerships are categorized as expanding a college's developmental periphery. Questions 14 through 18 of the questionnaire addressed expanding the developmental periphery. Respondents reported a grand mean score of 2.88 with a standard deviation of .99. A score of 2.88 indicates that the president's perception of success in implementing strategies around expanding developmental periphery was *moderately successful (*n = 93*).* A low standard deviation indicates that there was little variation in the responses from presidents. Table 5 shows the distribution.

Table 5

Presidents' Perception of Expanding Developmental Periphery

Expanding Developmental Periphery	Minimum Value	Maximum Value	Mean	Standard Deviation
23. Contracts with local governmental agencies?	1	4	2.9	.93
24. Contracts with international agencies?	1	4	2	.96
25. Contracts with federal government agencies?	1	4	2.5	1.02
26. Contracts with state government agencies?	1	4	2.9	.81
27. Contracts with other private or public organizations?	1	4	3.0	.83
28. Gifts and donations from business/industry?	1	4	3.0	.91
29. Revenues from sport/athletic events?	1	3	1.7	.71
30. Leasing/renting of college property (facilities or equipment)?	2	4	2.7	.75

31. Auxiliary enterprises?	1	4	2.8	.96
32. Student tuition increases?	2	4	2.4	.76
33. Student fee increases?	2	4	2.5	.76
Total Score: Expanding Developmental Periphery	1	4	2.7	.92

Comparison of Institutional Characteristics

Research question two asked: Among the presidents, is there a significant difference in the level of entrepreneurial business practices based on president's characteristics (age, time in presidency, gender, race, & education). The first null hypothesis associated with this research question was:

H_{01} There is no significant difference in the level of entrepreneurial business practices of community college presidents based on the president's characteristics (age, time in presidency, gender, race, & education).

A one-way ANOVA was used to determine if there was a statistically significant difference in the mean score of community college presidents in self-reported entrepreneurial business practices based on president's characteristics (age, time in presidency, gender, race, & education). Presidents were asked, "How successful have you been at fusing new managerial values into the academic units such that all levels of the institution develop an entrepreneurial culture?" Levene's test indicated that the homogeneity of variance assumption was tenable. The one-way ANOVA indicated a statistically significant difference among the means of the groups for the variable *time in*

presidency: F (3, 24) = 3.358. *p* > .05. Presidents were asked "How successful have you

been at using a college foundation to raise funds in support of college programs and/or

services?" Levene's test indicated that the homogeneity of variance assumption was

tenable. The one-way ANOVA indicated a statistically significant difference among the

means of the groups for the variable *age: F* (3, 25) = 3.263. *p* > .05.

Presidents were asked, "How successful have you been at ensuring academic

departments embrace entrepreneurial change?" Levene's test indicated that the

homogeneity of variance assumption was tenable. The one-way ANOVA indicated a

statistically significant difference among the means of the groups for the variable *time in*

presidency: F (3, 26) = 6.195. *p* > .05. Presidents were asked "How successful have you

been at linking entrepreneurial programs with traditional academic programs?" Levene's

test indicated that the homogeneity of variance assumption was tenable. The one-way

ANOVA indicated a statistically significant difference among the means of the groups for

the variable *time in presidency: F* (3, 26) = 3.311. *p* > .05.

Presidents were asked, "How successful have you been developing an

organizational culture that embraces change?" Levene's test indicated that the

homogeneity of variance assumption was tenable. The one-way ANOVA indicated a

statistically significant difference among the means of the groups for the variable *time in*

presidency: F (3, 26) = 7.882. *p* > .05. Presidents were asked, "How successful have you

been developing an organizational culture that embraces change?" Levene's test indicated

that the homogeneity of variance assumption was tenable. The one-way ANOVA

indicated a statistically significant difference among the means of the groups for the

variable *time in presidency: F* (3, 26) = 7.882. *p* > .05. Presidents were asked, "How

successful have you been in developing contracts with state government agencies?"

Levene's test indicated that the homogeneity of variance assumption was tenable. The

one-way ANOVA indicated a statistically significant difference among the means of the

groups for the variable *age: F* (3, 22) = 5.202. *p* > .05. Presidents were asked, "How

successful have you been in building auxiliary enterprises at the college?" Levene's test

indicated that the homogeneity of variance assumption was tenable. The one-way

ANOVA indicated a statistically significant difference among the means of the groups for

the variable *age: F* (3, 20) = 5.432. *p* > .05.

The one-way ANOVA did not identify any statistically significant difference

among the other variables tested in phase I. All statistically significant differences were

among presidents' *age* or *time in presidency*, allowing the researcher to reject the null

hypothesis for these variables. There was no statistically significant difference for any of

the survey questions for *gender, race,* or *terminal degree*, thus allowing the researcher to

accept the null hypothesis for the variables *gender, race,* or *terminal degree.*

Research question three asked: Among the presidents, is there a significant

difference in the level of entrepreneurial business practices based on the state that the

community college operates? The null hypothesis associated with this research questions

was:

H_{01} There is no significant difference in the level of entrepreneurial business practices

of community college presidents based on the state in which the institution

operates.

A one-way ANOVA was used to determine if there was a statistically significant

difference in the mean score of community college presidents' self-reported

entrepreneurial business practices based on the state in which the institution operates. There was no statistically significant difference in the variables based on the state in which the institution operates. The researcher accepted the null hypothesis.

Research question four asked: Among the presidents, is there a significant difference in the level of entrepreneurial business practices based on the community college size? The null hypothesis associated with this research questions was:

H_{01} There is no significant difference in the level of entrepreneurial business practices of community college presidents based on the institution's size.

A one-way ANOVA was used to determine if there was a statistically significant difference in the mean score of community college presidents' self-reported entrepreneurial business practices based on the institution's size. Presidents were asked "How successful have you been at creating new programs and services that are adaptable to the mission of your college?" Levene's test indicated that the homogeneity of variance assumption was tenable. The one-way ANOVA indicated a statistically significant difference among the means of the groups for the variable *college size: F* $(3, 27) = 5.758$. *p* $> .05$.

Presidents were asked "How successful have you been at creating contracts with international agencies?" Levene's test indicated that the homogeneity of variance assumption was tenable. The one-way ANOVA indicated a statistically significant difference among the means of the groups for the variable *college size: F* $(3, 11) = 4.207$. *p* $> .05$. There was no significant difference in the means for the other questions included in the survey.

Phase II

Phase II of this study focuses on the research question: Do community college presidents believe that the increased adoption of entrepreneurial business practices is a disruptive innovation in higher education? To answer this question, community college presidents in each state were asked an interview protocol to determine the level to which they believe entrepreneurial business practices were a disruptive innovation. The interview protocol was coded using the 5 dimensions of Clark's entrepreneurial community college model. Table 6 shows the frequency in each area from the interview protocol.

Table 6

Presidents' Level of Entrepreneurial Practices

Clark's 5 Dimensions of Entrepreneurial Practices	Frequency
Strengthen Steering Core	16
Diversifying the Funding Base	32
Stimulated Academic Heartland	9
Integrated Entrepreneurial Culture	15
Expanding Developmental Periphery	17

Strengthen the Steering Core

Clark (1998) described strengthening the steering core are presidents who (a) restructure the organization to allow calculated risk, (b) align the structure with the strategic goals and vision of the institution, and (c) restructure the college board of trustees to allow for its active involvement and support of the entrepreneurial mission. All of the Presidents interviewed in this study highlighted strategies that strengthened the

steering core for their institution. Two respondents indicated that any entrepreneurial strategies that do not become part of the overall structure and culture of the college will fail. One respondent outlined their process for change management and how he went about creating a core value of innovation in the institution to drive entrepreneurship.

All participants in phase II of the study mentioned how all innovative and entrepreneurial activities within the college need to be driven by the mission and vision of the institution. Before these strategies are implemented, they should be run through the filter of how will this benefit our students and community. This theme was woven throughout the interview protocol with all participants.

Diversifying the Funding Base

Esters' (2007) qualitative analysis showed that community college presidents from one southeastern state used private fundraising campaigns to diversify the funding base and become less reliant on state appropriations. Some practices by these presidents included (a) use of a well-trained foundation board, (b) use of consultants for fundraising campaigns, (c) building relationships with key community people (friend raising), (d) matching state funds with private funds, (e) pursuing grants, and (f) developing profit centers. Coding of the interview protocol revealed that diversifying the funding base was mentioned the most of any of Clark's (1998) dimensions of entrepreneurial community colleges. All respondents talked extensively about the importance of a foundation in raising funds for the community college. Three college presidents discussed how important grants and private funds were to the sustainability of the organization.

Three respondents have successfully implemented separate 501(c)(3) (non-profit) organizations outside of their foundations for revenue generation outside the normal

operations of the institution. Two of these organizations used real estate owned by the college to produce outside revenue. In one instance, the college was developing portions of the campus to lease to private organizations for rental income. The other created a business incubator for members of the college community to take new, innovative small business ideas and provide start-up funding. All three presidents indicated the importance of sticking with the mission of the college and focusing on students. These outside operations cannot take away from the core mission and vision of the institution in order to be successful.

Stimulated Academic Heartland

Clark (1998) defined simulated academic heartland as occurring when presidents are able to look beyond traditional models by working closely with business and industry partners. Coding of the interview protocol showed that two presidents did not mention this dimension of Clark's model. Two participants mentioned this dimension in Clark's model the least of all five dimensions.

President A discussed how important it is that community colleges not forget the community that is part of the name. President A said "Let's not forget, community colleges have always been closely aligned with industry partners and focused on meeting the needs of the community. However, looking at these relationships differently and connecting the industry partnerships to the business model is critical for the future of community colleges."

President C talked about how he had connected his academic programs to industry to create a truly unique program and partnership in the music industry. President C said:

We had adopted what I believe was a highly entrepreneurial program, but it was in the music industry. What we had set up was not like you would find here and there, you know recording programs or audio tech programs. We were setting up a program that would encourage students to create compositions and writings and then trying to work relationships, almost like an honors college. If you had students that had a certain amount of talent for writing, recording or performing then we would engage them in an honors-like program where they would get some opportunities where they could get some hands-on experience at a little higher level. And we were building relationships with the music industry so these students could get that exposure. We didn't hire typical graduates of an audio program and get them to teach, we went out and hired folks that had been working in the industry and knew what they were talking about and had built a career in that industry.

There was a high need for music engineers in the area of his college, so he partnered with a recording studio to offer a program that was directly connected to the industry. They found faculty who were practitioners, and students actually got work experience. Although this was a niche program, the president was proud of how they were able to create a program that added value and filled a need for the community. For the president, this was entrepreneurial because it aligned the college with community needs and generated revenue because of increased enrollment, while keeping cost minimal because of the shared resources with industry.

Integrated Entrepreneurial Culture

Integrated entrepreneurial culture is a culture that embraces entrepreneurial changes (Clark, 1998). Some examples of strategies for integrating entrepreneurial culture include (a) communicating often with people at all levels of the college, (b) establishing values and principles and getting others to buy into them, (c) including entrepreneurialism in the strategic plan, and (d) getting the support of the governing board (Clark). All presidents interviewed by the researcher mentioned how culture impacts change and innovation. All president's mentioned how changing a culture is a strong challenge as a president. For example, President B said, "I think the first thing is it has to become part of the culture. If it's not, and you can't get it to become part of the culture, then you have a real, steep launch or on-ramp and it's difficult because you start with the premise that the greatest asset that you have is your people." President D said, "The culture of the community has been quite responsive, and I think it's brought a stronger support in terms of financial investment than before. So the community itself, the business and community leaders, are the movers." All presidents echoed these statements showing that culture was pivotal in the adoption of entrepreneurial strategies.

One president discussed how change in general is not easy and that it takes time to ingrain entrepreneurial practices into the culture of the institution, saying "I never said any of this is easy." He compared creating a culture to starting a business and being an entrepreneur. He discussed how no one is going to change if they do not have to. He compared this to driving to work. He described how if you know the quickest way to your job, you are going to take that route. He said:

> You know the shortest, efficient way for you to get to work. Right, you're not
> going to change that. Now if they tear up the road and you've got 20 minutes of

road construction, now you are going to go in a different direction. So I think the
way you prepare that mindset is to look at where we are at. And so we have been
doing that with our data dashboard. At the college that is what we are doing. We
have our processes, and we are trying to get our staff to anticipate the roadblocks
and find alternative routes.

There are many changes happening in the higher education landscape, and being able to
anticipate the challenges and opportunities is critical to success.

Two community college presidents discussed creating entrepreneurship and
innovation groups and committees. These groups are campus wide groups that get
together and talk about entrepreneurial ideas. President A has a committee on campus
that focuses on data dashboards and looking at how activities impact key performance
indicators. The group is tasked with thinking outside of the normal activities of the
college and identifying new ways for the college to function. President A said, "By
giving members of the college a stake in its success, they have ownership of the
outcomes." This allows the entrepreneurship to permeate through the culture of the
college. President B created a 501 (c)(3) organization to promote entrepreneurial
activities by faculty and other members of the campus community. He said, "This group
has helped to make innovation and entrepreneurship a core value of the organization."
He indicated that this does not happen overnight and is not something that is natural in
academia. However, once you get there, great things can happen in the organization. In
this case the organization has generated a new source of revenue beyond the scope of
what the college has done historically.

President D indicated that because the entrepreneurial activities were relatively new on her campus, she had not had as much success ingraining the activities into the culture. She said, "I know that in order for the entrepreneurial activities to be successful, I will need buy-in from the campus." One factor helping to accelerate the change culture necessary is the dramatic reduction of funding in her state. Having suffered extreme budget cuts forces all members of the campus community to be more open to change. President D said, "We have a joke in the state that higher education went from being state supported, to state assisted, to state located. All presidents indicated that in a challenging landscape in higher education, colleges that do not act entrepreneurial are at risk as the old business model is not sustainable.

Expanding Developmental Periphery

Clark (1998) described practices for expanded developmental periphery that included using data to drive decisions regarding business and workforce needs, collaboration with healthcare providers to determine training shortages, and partnering with public schools to develop relationships and guaranteed admissions for students. Clark argued that these strategic partnerships are categorized as expanding developmental periphery. Three of the community college presidents interviewed highlighted expanding developmental periphery throughout the course of the interview. All three indicated that strong strategic partnerships are critical to the connection to the community as well as the success of the institution.

When the presidents were asked to describe an activity that the college is participating in that they would consider to be entrepreneurial, three of the four respondents highlighted activities where the college was participating in public/private

partnerships. One of the activities was a partnership regarding an academic program. The other two were partnerships in which the college was using assets to generate additional revenue. All three colleges discussed how the partnership was critical to the entrepreneurial activity. All of the respondents discussed how the foundation partnership and development was critical to the college's success and survival. The presidents all indicated that these partnerships were critical, but all of them had strategies to develop new partnerships to address challenges and opportunities in the future.

Conclusion

Chapter 4 discussed the results of this sequential explanatory study as it used quantitative method to measure entrepreneurial practices in which community college presidents in three SACSCOC states engaged, followed by a qualitative method to explain if presidents believed this entrepreneurial business model phenomenon was a disruptive innovation in higher education. This chapter discussed the results of both the quantitative and qualitative data.

CHAPTER 5

FINDINGS

The purpose of this chapter is to summarize and discuss the results of this study. The chapter is divided into the following sections: (a) overview of the study, (b) discussion of the findings, (c) implications and recommendations, and (d) conclusions.

Overview of the Study

The purpose of this study was to find out to what extent community college presidents perceive their colleges are adopting entrepreneurial business models. The study also explored if community college presidents believe these practices are a disruptive innovation in higher education. As stated in Chapter 1, the funding of America's public higher education institutions has suffered because of budget cuts during the financial crisis. According to Douglas (2010), an economic downturn typically means higher demand for higher education. However, because states are cutting funding to higher education, institutions are forced to raise tuition and reduce course offerings (Douglas).

Institutions are being forced to do more with less. They are being forced to innovate in a collegial culture that limits innovative and efficient business processes because of a lack of quantifiable accountability (Bergquist & Pawlak, 2008). This study sought to find out if community college presidents think that more entrepreneurial business models are a disruptive innovation. A better understanding of community college presidents' views on entrepreneurial practices can help shape practices for future community college leaders.

Research Questions

1. To what extent do community college presidents' in three states in the Southern Association of Colleges and Schools Commission on Colleges (SACS COC) perceive implementation of entrepreneurial business practices at their community colleges?

2. Among the presidents, is there a significant difference in the level of entrepreneurial business practices based on institutional characteristics (age, time in presidency, gender, race, & education)?

3. Among the presidents, is there a significant difference in the level of entrepreneurial business practices based on the state that their community college operates?

4. Among the presidents, is there a significant difference in the level of entrepreneurial business practices based on the institutions size?

5. Do community college presidents believe that the increased adoption of entrepreneurial business practices is a disruptive innovation (innovation that is viewed as inferior when introduced but over time gains market share and eventually takes the market) in higher education?

Discussion of Findings

  Research Question 1. Research question one was: To what extent do community college presidents' in three states in the Southern Association of Colleges and Schools Commission on Colleges (SACS COC) perceive implementation of entrepreneurial business practices at their community colleges? For this question, the findings revealed the level of entrepreneurial practices being used by presidents. The summary of the

findings is discussed in the next section based on Clark's (1998) five dimensions of entrepreneurial practices in community colleges.

Strengthen the steering core. Clark (1998) described strengthening the steering core as occurring when presidents (a) restructure the organization to allow calculated risk, (b) align the structure with the strategic goals and vision of the institution, and (c) restructure the college board of trustees to allow for its active involvement and support of the entrepreneurial mission. The mean score for survey questions addressing strengthening the steering core was 3 with a standard deviation of .87 indicating that presidents were *moderately successful* with strengthening the steering core.

Diversified funding base. Esters' (2007) qualitative analysis showed that community college presidents from one southeastern state used private fundraising campaigns to diversify the funding base and become less reliant on state appropriations. Some practices by these presidents included (a) use of a well-trained foundation board, (b) use of consultants for fundraising campaigns, (c) building relationships with key community people (friend raising), (d) matching state funds with private funds, (e) pursuing grants, and (f) developing profit centers. The mean score for survey questions addressing strengthening the steering core was 2.88 with a standard deviation of .99, indicating that presidents were just less than *moderately successful* with the diversifying funding base dimension.

Stimulated Academic Heartland. Clark (1998) defined stimulated academic heartland as occurring when presidents were able to look beyond traditional models by working closely with business and industry partners. The mean score for survey questions for stimulated academic heartland was 2.48 with a standard deviation of .74 indicating

that presidents were between *somewhat successful* and *moderately successful* with the diversifying funding base dimension.

Integrated Entrepreneurial Culture. An integrated entrepreneurial culture is a culture that embraces entrepreneurial changes. Some examples of strategies for integrating entrepreneurial culture included (a) communicating often with people at all levels of the college, (b) establishing values and principles and getting others to buy into them, (c) including entrepreneurialism in the strategic plan, and (d) getting the support of the governing board (Clark, 1998). The mean score for survey questions for integrated entrepreneurial culture was 2.89 with a standard deviation of .76, indicating that presidents were just less than *moderately successful* with the diversifying funding base dimension.

Expanded developmental periphery. Clark (1998) described practices for expanded developmental periphery that included using data to drive decisions regarding business and workforce needs, collaboration with healthcare providers to determine training shortages, and partnering with public schools to develop relationships and guaranteed admissions for students. The mean score for survey questions for expanded developmental periphery was 2.88 with a standard deviation of .99, indicating that presidents were just less than *moderately successful* with the diversifying funding base dimension.

Based on the data collected through the survey, community college presidents believe they have been moderately successful at implementing entrepreneurial strategies within Clark's (1998) five dimension community college entrepreneurship model.

Research Question 2. Research question two was: Among the presidents, is there a significant difference in the level of entrepreneurial business practices based on institutional characteristics (age, time in presidency, gender, race, & education)? The null hypothesis associated with this research question was:

H_{01} There is no significant difference in the level of entrepreneurial business practices of community college presidents based on the president's characteristics (age, time in presidency, gender, race, & education).

A one-way ANOVA was preformed to answer this research question. The Presidents' under 55 had responses that showed a statistically significant different mean score than presidents' who are 55 or older for the following survey questions:

- How successful have you been at using the college foundation to raise funds in support of college programs and/or services?

- How successful have you been developing contracts with state government agencies?

- How successful have you been building auxiliary enterprises at the college?

Because presidents under 55 responded to these questions with a statistically significant higher mean, they believe they have been more successful at implementing these strategies.

Presidents who have had the position seven years or more had a statistically significant lower mean score than presidents who had been presidents for less than seven years for the following survey questions:

- How successful have you been at fusing new managerial values into the academic units such that all levels of the institution develop entrepreneurial culture?

- How successful have you been at ensuring academic departments embrace entrepreneurial change?

- How successful have you been at developing an organizational culture that embraces change?

- How successful have you been at linking entrepreneurial programs with traditional academic programs?

- How successful have you been at developing an organizational culture that embraces change?

There were no statistical differences for the variables of *gender, race* or *terminal degree*. Based on these results, community college boards and systems that are looking to fill presidential vacancies who want to implement entrepreneurial strategies should seek candidates that are under 55 years old and understand that it takes multiple years to implement the systematic change that will be needed for an entrepreneurial culture.

Research Question 3

Research question three asked: Among the presidents, is there a significant difference in the level of entrepreneurial business practices based on the state within which the community college operates? The null hypothesis associated with this research questions was:

H$_{01}$ There is no significant difference in the level of entrepreneurial business practices

   of community college presidents based on the state within which the institution

   operates.

   A one-way ANOVA was used to determine if there was a statistically significant

difference in the mean score of community college presidents' self-reported

entrepreneurial business practices based on the state within which the institution operates.

There was no statistically significant difference in the variables based on the state within

which the institution operates. The researcher accepted the null hypothesis. The results of

this analysis indicates that the state in which the college operates does not impact the

presidents' perceptions of entrepreneurial strategies.

   Research Question 4. Research question four asked: Among the presidents, is

there a significant difference in the level of entrepreneurial business practices based on

the size of the community college? The null hypothesis associated with this research

questions was:

H$_{01}$ There is no significant difference in the level of entrepreneurial business practices

   of community college presidents based on the institution's size.

   A one-way ANOVA was preformed to answer this research question. The mean

score of the Presidents responses for the following questions showed a significant

difference based on institution size:

- How successful have you been at creating new programs and services that
  are adaptable to the mission of your college?

- How successful have you been at creating contracts with international
  agencies?

There was no other statistically significant differences based on *college size*. Perceptions of success for presidents at larger colleges regarding the implementation of entrepreneurial strategies is greater than presidents at smaller colleges. Qualitative data collected in phase II of this study indicate that the differences based on size may also be connected to the resources available to the college.

Research Question 5. Research question five asked: Do community college presidents believe that the increased adoption of entrepreneurial business practices is a disruptive innovation in higher education? To answer this question, the researcher interviewed four community college presidents from the three states included in the study, and the results were analyzed using Clark's (1998) five dimensions of community college practices.

Coding of the interview transcripts revealed that all 5 dimensions were covered by most respondents with *Diversifying the Funding Base* being the dimension that was mentioned most by presidents at 32 times. The next most mentioned dimension was *Expanding Developmental Periphery* with 17 mentions. *Strengthen Steering Core* and *Integrated Entrepreneurial Culture* were next with 16 and 15 mentions. Lastly, *Stimulated Academic Heartland* was mentioned the least at 9 times. All four presidents indicated that the financial climate for their school was a driving force for why the school was trying to be entrepreneurial. This explains why diversification of the funding base is mentioned the most in phase II of the study.

Recommendations

The purpose of this study was to find out to what extent community college presidents perceive their colleges are adopting entrepreneurial business models. It was expected that the study would:

1. Add meaning to the existing data regarding the need for entrepreneurial strategies from community college presidents.

2. Reveal if there are differences in community college presidents' perceptions about implementing entrepreneurial strategies.

3. Improve community college leadership in one or more of the following areas: (a) practice, (b) policy, or (c) leadership theory.

This section will provide recommendations based on those findings.

Recommendations for Practice

Strengthen the steering core. Changing a college culture is a slow and tedious process that starts with the institution's core values and institutional mission along with ensuring that everyone at the institution understands the mission and how the mission leads to acceptance of innovation and entrepreneurialism. In order to impact entrepreneurial change in a community college, presidents should make entrepreneurship and innovation a core value at the college. By instilling an entrepreneurial spirt in the core values of a community college, presidents can implement more entrepreneurial strategies that will be accepted by the institutional culture. To make this a core value, presidents should take the following action:

- Create a cross-functional task force that focuses on entrepreneurship
- Invest in innovation and new ways of doing business

- Encourage employees to be goal and outcome oriented as opposed to task oriented

Diversifying the Funding Base. In a difficult financial environment for community colleges, the respondents in phase II all indicated that traditional state funding is unlikely to increase. Therefore it is critical for colleges to create a diverse portfolio with various revenue streams to be successful. This is at the heart of entrepreneurial strategies. Community colleges presidents should work to create or strengthen foundations to increase fundraising and revenue for the college. There are opportunities for private and public funding, and utilizing grant and endowment funds as a new source of revenue can help to ensure that the college is financially sustainable in difficult times. To diversify funding, presidents should:

- Create or strengthen a foundation with a private fundraising focus

- Hire a grant writer/coordinator

- Identify the community college's assets to leverage auxiliary services (bookstore, food service, real estate, etc.)

Stimulated Academic Heartland. Community College presidents should look beyond traditional academic business models and explore new ways to achieve the mission of their institutions. With innovation in technology, rising student debt and shrinking public investment, community college presidents must look for new ways of doing business and achieving the institutional mission. To accomplish this task, presidents will have to:

- Increase communication about community college priorities

- Create a data driven goals and strategies

- Create an environment that fosters and encourages new ways of doing business

- Assign accountability through and monitor key performance indicators

Integrated Entrepreneurial Culture. Presidents in community colleges should ingrain entrepreneurial strategies into the fabric of the institution. If they fail to integrate the entrepreneurial strategies into the culture of the college, the change will not sustain itself. To engrain entrepreneurial culture at the community college, presidents should:

- Create a cross-functional task force that focuses on entrepreneurship

- Incentivize entrepreneurship and innovation

- Set clear goals and monitor progress

Expanding Developmental Periphery. Colleges cannot survive alone. One president in this study said *community* is our middle name. Part of the mission of a community college is to serve the community. There are numerous partnership opportunities available at most community colleges. Presidents should be visible in the community and look for opportunities where they can partner with other organizations whose goals overlap. One president said "partner or perish" was the new phrase in higher education. Public-private partnerships can allow a community college president to invest limited resources because the partners are willing to match the investment to achieve a common goal. Although community colleges have historically served the community by partnering with industry, presidents should look for ways to collaborate with other organizations to achieve common goals. These types of partners should include:

- Public and private high schools

- Community non-profits

- Corporations in the service region

- Workforce development boards

- Economic development boards and organizations

- 4-Year colleges and universities

In order to facilitate these partnerships presidents should create a position to manage current and create new partnerships.

Implications of Findings

The results of this study have implications across the higher education landscape, particularly in the community college sector. As community colleges look to fill presidential vacancies and other senior administrative positions, system offices and state politicians should work to create infrastructure and environments that foster entrepreneurial strategies. Finding presidents who are risk tolerant and willing to try new things will be critical to the sustainability of colleges as new funding models evolve. Creating an environment that eliminates barriers for efficient business process allows entrepreneurial presidents to thrive and innovate.

Graduate programs that are educating and training future community college leaders should teach entrepreneurial and innovative strategies. The only constant is change in today's community college landscape, so it is critical that programs teach students to be change leaders. The results would also indicate that coursework in private fundraising and foundation development are critical skills for tomorrow's leaders. Finally, leaders that aspire to be community college presidents should use the results of this study to hone skills grounded in Clarks (1998) five dimensions of entrepreneurial community college presidents.

Recommendations for Future Research

Given that there are limited studies that look at entrepreneurial practices among community college presidents, there are many avenues to further explore entrepreneurial practices among community college presidents. Specifically, after conducting this study, several questions might be answered as researchers investigate entrepreneurial leadership in community colleges. Suggested studies are listed below.

1. Further explore the reasons why community college presidents are trying to perceive implementation of entrepreneurial strategies.

2. Further investigate the reason for differences among the level of entrepreneurial practice among presidents based on age and time in presidency.

3. Replicate this study with other states within the SACSCOC region.

4. Replicate this study with other regions throughout the United States.

Conclusion

Chapter 5 discussed the findings and implications of this sequential explanatory study. The chapter described how the findings of this study can be used for the community college industry, inclusive of community college systems, state political officials, graduate programs training community college leaders, and individuals aspiring to become community college presidents. The study also outlines recommendations for future research in the area of entrepreneurial community college presidents.

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APPENDIX A

INTERVIEW PROTOCAL

Interview Questions:

In your own words, what does it mean for a Community College to be entrepreneurial?

Have you implemented entrepreneurial strategies at your college? If so, please discuss what strategies you feel have been most successful?

Why did you implement those strategies?

In what ways have the funding limitations driven change at your community college?

Diversification of Revenue is one way that colleges act entrepreneurial, please discuss some ways that your college has been successful in developing new sources of revenue?

In your own words, what makes a community college entrepreneurial?

If colleges are unsuccessful implementing entrepreneurial culture, what happens?

APPENDIX B

QUESTIONAAIRE

Community College Entrepreneurial Practices Survey

Participant Consent Form

You are invited to participate in a study that investigates the entrepreneurial practices of community college presidents and chief financial officers (CFO). Your insight and knowledge will contribute to a better understanding of the entrepreneurial practices of community college presidents and CFO's.

Upon deciding to participate, it is requested that you sign this consent form electronically.

The survey is composed of forced-choice and open-ended questions related to your involvement in entrepreneurial practices. It will take approximately 10 minutes to complete the survey.

Any information obtained in this investigation that can be identified with you will remain confidential and will not be disclosed.

Before beginning the survey, please fill in the following requested information.
1. Please print your first and last name.

2. Please print the name of your institution.

Personal Data

Please check the appropriate response for each question.
3. What is your age range?
○ Under 55

○ 56 or older

4. What is your gender?
○ Female

○ Male

5. What is your race?

○ African American

○ Asian American

○ Caucasian

○ Hispanic/Latino

○ Native American

○ Other (please specify)

[   ]

6. How many years have you been in your current position?

○ Fewer than 7 years

○ 7 years or more

7. Do you have a terminal degree?

○ Yes

○ No

Institutional Data

Please check the appropriate response for each question.

8. In what state is your college located?

○ Louisiana

○ North Carolina

○ Virginia

9. What is the size of your institution (annual FTE)?

○ Under 5,000

○ 5,001 - 10,000

○ 10,001 - 15,000

○ 15,001 - 20,000

○ 20,001 - 25,000

○ Over 25,000

Entrepreneurial Practices

Answer the following questions regarding your practices during your tenure as a community college president or CFO.

For the purpose of this study, entrepreneurial practices may be defined in terms of three characteristics of entrepreneurship which include creativity and innovation; resource gathering and the founding of an economic organization; and the chance to gain (or increase) under conditions of risk and uncertainty.

10. How successful have you been at changing the organizational structure of your college in an effort to build an entrepreneurial organization?

○ Very Successful

○ Moderately Successfully

○ Minimally Successfully

○ Not Successful

○ Not-Applicable

11. How successful have you been at developing job rotation programs for employees so that they are adaptable to change?

○ Very Successful

○ Moderately Successfully

○ Minimally Successfully

○ Not Successful

○ Not-Applicable

12. How successful have you been at creating new programs and services that are adaptable to the mission of your college?

○ Very Successful

○ Moderately Successfully

○ Minimally Successfully

○ Not Successful

○ Not-Applicable

13. How successful have you been at fusing new managerial values into the academic units such that all levels of the institution develop an entrepreneurial culture?

○ Very Successful

○ Moderately Successfully

○ Minimally Successfully

○ Not Successful

○ Not-Applicable

14. How successful have you been at using a college foundation to raise funds in support of college programs and/or services?

○ Very Successful

○ Moderately Successfully

○ Minimally Successfully

○ Not Successful

○ Not-Applicable

15. How successfully have you used a special unit/department for innovation and entrepreneurship development?

○ Very Successful

○ Moderately Successfully

○ Minimally Successfully

○ Not Successful

○ Not-Applicable

16. How successful have you been at contracting out college employees to provide training programs and/or workshops with business/industry?

○ Very Successful

○ Moderately Successfully

○ Minimally Successfully

○ Not Successful

○ Not-Applicable

17. How successful have you been at using your college staff to write grants on a full-time or part-time basis?

○ Very Successful

○ Moderately Successfully

○ Minimally Successfully

○ Not Successful

○ Not-Applicable

18. How successfully have you used an alumni association to raise funds in support of college programs and/or services?

○   Very Successful

○   Moderately Successfully

○   Minimally Successfully

○   Not Successful

○   Not-Applicable

19. How successful have you been at ensuring academic departments embrace entrepreneurial change?

○   Very Successful

○   Moderately Successfully

○   Minimally Successfully

○   Not Successful

○   Not-Applicable

20. How successful have you been at linking entrepreneurial programs with traditional academic programs?

○   Very Successful

○   Moderately Successfully

○   Minimally Successfully

○   Not Successful

○   Not-Applicable

21. How successful have you been at developing an organizational culture that embraces change?

○   Very Successful

○   Moderately Successfully

○   Minimally Successfully

○   Not Successful

○   Not-Applicable

22. How successful have you been at facilitating a college-wide appreciation for an entrepreneurial culture at your college?

○   Very Successful

○   Moderately Successfully

○ Minimally Successfully

○ Not Successful

○ Not-Applicable

Entrepreneurial Practices

During your tenure, have you been involved in the following entrepreneurial practices with the intention of realizing net financial gain to help support other educational programs and/or services:

23. Contracts with local governmental agencies?

○ Very Successful

○ Moderately Successfully

○ Minimally Successfully

○ Not Successful

○ Not-Applicable

24. Contracts with international agencies?

○ Very Successful

○ Moderately Successfully

○ Minimally Successfully

○ Not Successful

○ Not-Applicable

25. Contracts with federal government agencies?

○ Very Successful

○ Moderately Successfully

○ Minimally Successfully

○ Not Successful

○ Not-Applicable

26. Contracts with state government agencies?

○ Very Successful

○ Moderately Successfully

○ Minimally Successfully

○ Not Successful

○ Not-Applicable

27. Contracts with other private or public organizations?

○ Very Successful

○ Moderately Successfully

○ Minimally Successfully

○ Not Successful

○ Not-Applicable

28. Gifts and donations from business/industry?

○ Very Successful

○ Moderately Successfully

○ Minimally Successfully

○ Not Successful

○ Not-Applicable

29. Revenues from sport/athletic events?

○ Very Successful

○ Moderately Successfully

○ Minimally Successfully

○ Not Successful

○ Not-Applicable

30. Leasing/renting of college property (facilities or equipment)?

○ Very Successful

○ Moderately Successfully

○ Minimally Successfully

○ Not Successful

○ Not-Applicable

31. Auxiliary Enterprises?

○ Very Successful

○ Moderately Successfully

○ Minimally Successfully

○ Not Successful

○ Not-Applicable

32. Student tuition increases?

○ Very Successful

○ Moderately Successfully

○ Minimally Successfully

○ Not Successful

○ Not-Applicable

33. Student fee increase?

○ Very Successful

○ Moderately Successfully

○ Minimally Successfully

○ Not Successful

○ Not-Applicable

34. How successful have you been at orienting your college board to the concept of entrepreneurial leadership?

○ Very Successful

○ Moderately Successfully

○ Minimally Successfully

○ Not Successful

○ Not-Applicable

35. Has your college board been supportive of your entrepreneurial efforts?

○ Very Successful

○ Moderately Successfully

○ Minimally Successfully

○ Not Successful

○ Not-Applicable

APPENDIX C
OLD DOMINION UNIVERSITY
APPLICATION FOR EXEMPT RESEARCH

Note: For research projects regulated by or supported by the Federal Government, submit 10 copies of this application to the Institutional Review Board. Otherwise, submit to your college human subjects committee.

Responsible Project Investigator (RPI)
The RPI must be a member of ODU faculty or staff who will serve as the project supervisor and be held accountable for all aspects of the project. Students cannot be listed as RPIs.

First Name: Dana	Middle Initial: D.	Last Name: Burnett
Telephone: 757-683-3287	Fax Number: 757-683-5716	E-mail: dburnett@odu.edu

Office Address: Old Dominion University, 110 Education Building

City: Norfolk	State: VA	Zip: 23529

Department: Educational Foundations and Leadership	College: Darden College of Education

Complete Title of Research Project: Disruptive Innovation: A Comparative Analysis of Community College Business Models Following a Natural Disaster	Code Name (One word): Innovation

Investigators
Individuals who are directly responsible for any of the following: the project's design, implementation, consent process, data collection, and data analysis. If more investigators exist than lines provided, please attach a separate list.

First Name: James	Middle Initial: T.	Last Name: Hart
Telephone: 804-863-2107	Fax Number: 804-862-6455	Email: jhart052@odu.edu

Office Address: Richard Bland College, 11301 Johnson Road

City: Petersburg	State: VA	Zip: 23805

Affiliation: __Faculty   _X_Graduate Student   __ Undergraduate Student
          __Staff   __Other_____

First Name:	Middle Initial:	Last Name:
Telephone:	Fax Number:	Email:

Office Address:		
City:	**State:**	**Zip:**
Affiliation: __Faculty __Graduate Student __ Undergraduate Student __Staff __Other_____		
List additional investigators on attachment and check here: __		

Type of Research

1. This study is being conduced as part of (check all that apply):

_	Faculty Research	_	Non-Thesis Graduate Student Research
_X_	Doctoral Dissertation	_	Honors or Individual Problems Project
_	Masters Thesis	_	Other_____

Funding

2. Is this research project externally funded or contracted for by an agency or institution which is independent of the university? **Remember, if the project receives ANY federal support, then the project CANNOT be reviewed by a College Committee and MUST be reviewed by the University's Institutional Review Board (IRB).**

___Yes **(If yes, indicate the granting or contracting agency and provide identifying information.)**
_X__No

Agency Name:
Mailing Address:
Point of Contact:
Telephone:

Research Dates

3a. Date you wish to start research (MM/DD/YY) __08__ / __15__ / __14__
3b. Date you wish to end research (MM/DD/YY) __12__ / __31__ / __14___

Human Subjects Review

4. Has this project been reviewed by any other committee (university, governmental, private sector) for the protection of human research participants?

___Yes _X__No

4a. If yes, is ODU conducting the primary review?

__Yes
__No (If no go to 4b)

4b. Who is conducting the primary review?

5. Attach a description of the following items:

_X_Description of the Proposed Study
_X_Research Protocol
_X_References
_X_Any Letters, Flyers, Questionnaires, etc. which will be distributed to the study subjects or other study participants
__If the research is part of a research proposal submitted for federal, state or external funding, submit a copy of the FULL proposal

Note: The description should be in sufficient detail to allow the Human Subjects Review Committee to determine if the study can be classified as EXEMPT under Federal Regulations 45CFR46.101(b).

Exemption categories

6.   Identify which of the 6 federal exemption categories below applies to your research proposal and explain why the proposed research meets the category. Federal law 45 CFR 46.101(b) identifies the following EXEMPT categories. Check all that apply and provide comments.

SPECIAL NOTE: The exemptions at 45 CFR 46.**101**(b) do not apply to research involving prisoners, fetuses, pregnant women, or human in vitro fertilization. The exemption at 45 CFR 46.**101**(b)(2), for research involving survey or interview

procedures or observation of public behavior, does not apply to research with children, except for research involving observations of public behavior when the investigator(s) do not participate in the activities being observed.

____(6.1) Research conducted in established or commonly accepted educational settings, involving normal educational practices, such as (i) research on regular and special education instructional strategies, or (ii) research on the effectiveness of or the comparison among instructional techniques, curricula, or classroom management methods.
Comments:

__X__(6.2) Research involving the use of educational tests (cognitive, diagnostic, aptitude, achievement), survey procedures, interview procedures or observation of public behavior, unless: (i) Information obtained is recorded in such a manner that human subjects can be identified, directly or through identifiers linked to the subjects; AND (ii) any disclosure of the human subjects' responses outside the research could reasonably place the subjects at risk of criminal or civil liability or be damaging to the subjects' financial standing, employability, or reputation.

Comments: This explanatory, mixed method study will use an electronic survey followed by an interview protocol to 6 of the survey respondents. All survey responses and interview transcripts will be held on a password protected device and stored in a locked storage cabinet for 5 years when they will be destroyed. Personal identifiable information will be removed from the file and each respondent will receive a unique number so no names or characteristics are identifiable from the data.

___(6.3) Research involving the use of educational tests (cognitive, diagnostic, aptitude, achievement), survey procedures, interview procedures, or observation of public behavior that is not exempt under paragraph (b)(2) of this section, if:
(i) The human subjects are elected or appointed public officials or candidates for public office; or (ii) federal statute(s) require(s) without exception that the confidentiality of the personally identifiable information will be maintained throughout the research and thereafter.
Comments:

____(6.4) Research, involving the collection or study of existing data, documents, records, pathological specimens, or diagnostic specimens, if these sources are publicly available or if the information is recorded by the investigator in such a manner that subjects cannot be identified, directly or through identifiers linked to the subjects.

Comments:

___ (6.5) Does not apply to the university setting; do not use it

____(6.6) Taste and food quality evaluation and consumer acceptance studies, (i) if wholesome foods without additives are consumed or (ii) if a food is consumed that contains a food ingredient at or below the level and for a use found to be safe,

or agricultural chemical or environmental contaminant at or below the level found to be safe, by the Food and Drug Administration or approved by the Environmental Protection Agency or the Food Safety and Inspection Service of the U.S. Department of Agriculture.

Comments:

PLEASE NOTE:

1. You may begin research when the College Committee or Institutional Review Board gives notice of its approval.
2. You MUST inform the College Committee or Institutional Review Board of ANY changes in method or procedure that may conceivably alter the exempt status of the project.

Responsible Project Investigator (Must be original signature)

Date

Description of Proposed Study

Public funding of higher education has been decreasing in recent years as a result of a tough economy (Douglas, 2010). When governments reduce appropriations to public institutions, colleges must think and act like businesses. Financial hardships directly impact organizations and their business process. It is important for organizations, higher education to look at different business models to ensure sustainability in times of financial hardship and reduction of resources (Kirp, 2004). Access to educational opportunities significantly affects the well-being of communities (Powell, Jeffries, Newhart, & Stiens, 2006). Financial hardships can create planning opportunities to become more efficient and better serve the organizational mission (Powell et. al., 2006). Proprietary colleges operate with a profit driven mission and have secured substantial marked share in the higher education industry (Baum & Payea, 2011). Although the

higher education community views proprietary schools as inferior, they are extremely adaptable and efficient organizations because of their mission (Unger, 2007). As resources become limited, public colleges are forced to act more and more like proprietary schools, thus potentially creating a disruptive innovation in higher education.

Disruptive innovation is defined as a different product or service that is offered as an alternative to an existing product or service (Christensen & Horn, 2008). These innovations start out as inferior products but appeal to a different market. Sometimes the products or service are more simple or affordable. Eventually the new product or service improves and begins to disrupt the original market (Christensen & Horn). When institutions are faced with scarce resources, they are put in a position where they must change their product and make it simple and more affordable order to survive. They essentially change their business model and make adjustments to deliver their product. Less important aspects of the original product are often abandoned because the resources are scarce. Proprietary colleges are very mission focused institutions and they operate efficiently and with the flexibility that student's demand. Over time, with reduced state support, public community colleges must also become entrepreneurial and develop more efficient business models to ensure sustainability.

This study will seek to answer the following research questions:

6. To what extent do community college presidents' in three states in the Southern Association of Colleges and Schools Commission on Colleges (SACS COC) use entrepreneurial business practices?

7. Among the presidents, is there a significant difference in the level of entrepreneurial business practices based on institutional characteristics (age, time in presidency, gender, race, & education)?

8. Among the presidents, is there a significant difference in the level of entrepreneurial business practices based on the state that their community college operates?

9. Among the presidents, is there a significant difference in the level of entrepreneurial business practices based on the institutions size?

10. Do community college presidents believe that the increased adoption of entrepreneurial business practices is a disruptive innovation (innovation that is

viewed as inferior when introduced but over time gains market share and
eventually takes the market) in higher education?

In order to answer these questions about entrepreneurial community college
business models, a explanatory, mixed method research design will be used. This mixed
method approach will use an electronic survey to presidents and chief financial officers in
three SACS COC schools, followed by telephone interviews with two respondents from
each state. Pseudonyms will be used for respondent's college of employment and
respondent names to keep responses private and anonymous.

Research Protocol

This study will use a two phase research design for data collection.

Phase I

The Entrepreneurial Practices Survey will be web-based. An email will be sent to
participants informing them of the survey and its purpose. The email included a link to
the SurveyMonkey website (see Appendix B). A reminder email will be re-sent to
presidents who do not respond to the survey within two weeks. The responses will be
downloaded from SurveyMonkey into a spreadsheet, checked for accuracy and
completeness, and then imported to Statistical Package for the Social Sciences (SPSS) for
analysis.

Phase II

This study will use an interview protocol with selected community college
presidents in order to address research question five: Do community college presidents
believe that the increased adoption of entrepreneurial business practices is a disruptive
innovation in higher education? Telephone interviews will be organized with each
participating community college presidents and the same interview protocol will be used
for each of the respondents. I will conduct the telephone interviews between September
2013 and October 2013. Interview questions will be open ended to allow for candid
responses to the interview questions. Once the respondent finishes answering a question,
the researcher will restate and summarize the answer to ensure validity of the response.
All interviews will be recorded and transcribed.

In both Phase I and Phase II, anonymous identifiers will be used in lieu of names and all data will be kept on a password protected computer in a locked storage cabinet.