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Strategies for Organizational Sustainability in Higher Education

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This is to certify that the doctoral study by

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Abstract

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MBA, Texas A&M Central Texas, 2009

BBA, University of North Texas, 2001

Doctoral Study Submitted in Partial Fulfillment

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Abstract

The defunding of higher education at the state and national level following the 2008 recession created the need for administrators of public higher education institutions to develop and implement funding strategies to maintain organizational sustainability. State government administrators reduced spending approximately 26% per student across the nation, leaving higher education administrators challenged with adjusting organizational budgets to compensate for the reduction in state monetary support. A multiple case study design was used to explore funding strategies that community college business leaders used to support budget decisions that maintain organizational sustainability. Four leaders from 3 community colleges in Central Texas participated in semistructured interviews. Interviews were triangulated with reviews of historical school board documents. Data analysis included documents review, member checking, coding data by participant, and electronic data analysis software to determine the most frequent responses. The theory of organizational change was used as the conceptual framework for exploring strategies community college business leaders use for sustainable futures. Two themes that emerged from the analysis were business-focused planning and student success identifying that community college business leaders need to focus on offering affordable education that meets stakeholders' needs while implementing funding strategies to support budget decisions for organizational sustainability. The findings may impact social change when budget decisions are made with a focus on affordable and quality education that improves the lives of individuals, meets local workforce needs, and promotes economic development within communities.

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Dedication

I dedicate this study to those who have supported me throughout my journey to include my committee, family, friends, and colleagues. The support shown over the last several years has been a driving force to see this chapter of life conclude so another may begin.

Acknowledgments

I would first list to thank God for the ability to take this journey in life. I have been granted encouragement and the support of a loving family to keep me moving forward and the dedication and passion alive for my education. To my parents, I thank you for the encouragement throughout my education journey over the years. I knew from a young age and into adulthood that their support would take me to heights unknown. Thank you for years of love and support during this long journey. To my son, I thank you for understanding the time I needed to complete my study during early morning hours, weekends, and holidays. I hope that my journey encourages you in your path and toward your future successes. To my husband of 12 years, and high school sweetheart, thank you for not giving up on my dream. Your patience and help through this process has pulled me through the difficult times and warmed my heart through the success.

Dr. Peter Anthony, my chair, I thank you for believing in my dream from its conception. When others questioned my focus, you encouraged and inspired me to pursue this study. Thank you for your guidance and support over the past two years. It is professors like you that make a difference in the lives of your students. Dr. Kelly Chermack, my second chair, I thank you for your support and encouragement beginning 2 and a half years ago with my second class at Walden. Your class in leadership enhanced my excitement for pursuing this degree program and continued through our interaction over the following years. Dr. Denise Land, my URR, I thank you for pushing me to further explore the research process through your insights and expertise in the field.

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Section 1: Foundation of the Study

Higher education funding streams include various sources such as tuition and fees, taxes, and state appropriations. Since 2006, the amount of state funding allocated by governmental officials has left higher education leadership to find new funding streams (D'Amico et al., 2012; Friedel & Thomas, 2013; Goldstein, 2012; Mitchell, Palacios, & Leachman, 2014; Oliff, Palacios, Johnson, & Leachman, 2013). The leaders in the business of higher education are in need of sustainability models for bottom line profitability.

Background of the Problem

The reduction of state education budgets beginning in 2005 and continuing through 2015 has resulted in tuition increases, tax increases, or operational budget reductions at colleges and universities across the United States. Public universities are struggling more than private universities because public institutions rely heavily on state appropriations (Leachman & Mai, 2014). Community colleges are in the most difficult financial predicament with increased enrollments as a result of university tuition increases, but with a concomitant reduction in allotted funding (D'Amico, Katsinas, & Friedel, 2012; Jenkins & Rodriguez, 2013). In response to the budget cuts, leaders tend to raise tuition, or reduce budgets and resources (D'Amico et al., 2012; Friedel & Thomas, 2013; Goldstein, 2012; Mitchell et al., 2014; Oliff et al., 2013).

Community college business leaders must strategically contend with the loss of funding which results in reduced operating budgets and increased student financial burden (D'Amico et al., 2012; Friedel & Thomas, 2013; Goldstein, 2012; Mitchell et al.,

2014; Oliff et al., 2013). What remains for researchers to explore are strategies which ensure that budget decisions support the organizational mission while maintaining bottom line profitability (Siegel, 2015). Implementation of differential tuition and other cost saving measures could allow leaders to offer quality, affordable education (Driscoll, Comm, & Mathaisel, 2013; Friedel & Thomas, 2013; Romano, 2012). Business leaders may welcome more information on how to reallocate resources and create new income streams that could be cost effective and beneficial. Previous researchers have identified the need to explore the implications of budget reductions and tuition costs on daily operations and bottom line profitability (D'Amico et al., 2012; Friedel & Thomas, 2013; Goldstein, 2012; Mitchell et al., 2014; Oliff et al., 2013).

Several researchers have developed arguments in support of the implementation of differential tuition (Driscoll et al., 2013; Friedel & Thomas, 2013; Romano, 2012). This type of tuition creates varying rates based on program enrollment and the operational costs versus a standard tuition rate (Ehrenberg, 2012). Another suggestion researchers have made includes the examination of departments impacted by reductions in operating budgets and the potential redistribution of funds to other campus operations (Jenkins & Belfield, 2014). In addition to increasing tuition, Dougherty, Natow, Bork, Jones, and Vega (2013) suggested leaders consider of reducing full-time faculty and increase in class sizes to produce an efficient budget and increased profitability.

Problem Statement

The defunding of higher education is causing administrators of public institutions to increase tuition or reduce budgets and resources available to operations, limiting

strategies and funding needed to maintain organizational sustainability (D'Amico et al., 2012; Dougherty et al., 2013; Friedel & Thomas, 2013; Goldstein, 2012). State government administrators are cutting spending on average 26% per student, causing an average increase of 28% in the cost of tuition (Barr & Turner, 2013; Hillman, 2012). The general business problem is that college administrators must adjust organization budgets to compensate for the reduction in state budget monetary support. The specific business problem is that some community college business leaders lack funding strategies that would support implementing budget decisions needed to maintain organizational sustainability.

Purpose Statement

The purpose of this qualitative multiple case study of community colleges was to explore funding strategies that community college business leaders use to support budget decisions that maintain organizational sustainability. The population included community college business leaders on three community colleges in Central Texas. I also reviewed corresponding open source organization financial documents. The population was appropriate because researchers have suggested that the defunding of higher education has imposed the largest threat to community college business leaders trying to maintain organization sustainability (D'Amico et al., 2012; Friedel & Thomas, 2013; Goldstein, 2012; Mitchell et al., 2014; Oliff et al., 2013). In addition, this population is in a centralized geographic location which was conducive to conducting face-to-face interviews. This study's positive social change implications include helping community colleges provide quality, affordable education to improve the lives of individuals, meet

local workforce needs, and spur economic development.

Nature of the Study

In order to determine the appropriate method and design, I reviewed the possible research methods to identify the one most useful for investigating a sustainability model for a higher education institution. I decided to use a multiple qualitative case study comprised of two participants from each of three separate community colleges to allow for an in-depth review of the lingering funding issues facing higher education administrators.

Through extensive qualitative studies, researchers have provided background knowledge to show the existence and scope of the problem (D'Amico et al., 2012; Dougherty et al., 2013; Friedel & Thomas, 2013; Goldstein, 2012). However, previous research using qualitative methods to explore sustainability methods is limited, and marks the need for further study. Scholars have used quantitative approaches to demonstrate the negative effects of budget reductions and to provide the groundwork for potential future studies. The external views that quantitative researchers have provided (Parry et al., 2014) have been beneficial for showing the severity of defunding, but an internal qualitative case study is needed to explore the potential methods that potentially could be used to maintain sustainability.

In this study, I could have used a mixed-methods study to obtain assorted views and used various facets for collecting data for an all-encompassing view of the problem, but this type of study is extensive in nature and not a recommended option for studies like mine that are designed to explore a business problem (see Sandelowski, 2014). Siegel

(2015) suggested that qualitative research is needed to discover new business models and revenue streams that will not hinder operations.

A phenomenological study is useful for exploring a lived experience through the view of the participant (Pietkiewicz & Smith, 2014). A phenomenological approach was not appropriate for this study because I sought to understand and compare cases of various locations and not the lived experiences of individuals. In addition, time requirements for this type of study would not have been conducive to the environment of the participants. A researcher conducting an ethnographic study researches communities and the cultural aspects of a phenomenon (Pietkiewicz & Smith, 2014). An ethnographic study did not align with my intention to explore sustainability models of community colleges. While ethnographic observation may have provided insights regarding human behavior in the lived phenomenon (Koskei & Simiyu, 2015), this method would have made it difficult for me to ensure data saturation because community college business leaders would likely not have participated because of time and logistical constraints.

While the case study design might present an atypical case, the data I gained using this design was more inclusive than that of other qualitative designs. Interviews are useful for direct insight into an issue, and provide historical perspectives from individuals most closely connected to the problem. I used multiple data sources to gain an understanding from a behavioral setting and to discover evidence by exploring institutional documents (Eisenhardt & Graebner, 2007). I chose this design to explore new territory and conduct specific program evaluation needed for adjustments of the complex systems of higher education institutions (see Parry et al., 2014).

Research Question

The research question for this study was: What funding strategies do community college business leaders use to support budget decisions which maintain organizational sustainability?

Interview Questions

1. How have state budget reductions affected the budget decisions at your institution?

2. How have you reorganized campus operations to meet the needs of new budget decisions to maintain organizational sustainability?

3. How have you explored processes for a sustainable future that will meet the needs of all stakeholders?

4. How have you explored the current issues in sustainability while ensuring that new issues are not created?

5. How can leaders identify new funding streams to offset the reduced budgets?

6. What additional information would you like to add that has not been discussed, but is pertinent to sustainability models?

Conceptual Framework

I designed the conceptual framework of the study around the theory of organizational change management to address the problem of identifying strategies to support budget decisions needed to maintain organizational sustainability. The defunding of higher education has become a reality (D'Amico et al., 2012; Kriger, 2012). Administrators must begin to focus on creating a sustainability plan by identifying

problems and finding solutions while adjusting their thinking to a shift in the business model (Afriyie, 2015; Aithal, Rao, & Kumar, 2015; Jenkins & Rodriguez, 2013; Lucas, 2014; Siegel, 2015).

While the need for continuous change is apparent for successful operations, Weick and Quinn (1999) suggested episodic change is a response to an external condition and requires an undoing of current operations, followed by conversion and implementation. Because of the loss of funding from state administrators, community college leaders must look internally for a resolution to unresolved problems (D'Amico et al., 2012; Dougherty et al., 2013; Friedel & Thomas, 2013; Goldstein, 2012). Organizational change is required to move forward and identify funding strategies to support budget decisions that maintain organizational sustainability.

An understanding of change management is important for administrators seeking to determine what will occur within their organization and provide a comprehensive view of the framework and the various phases of change (McLaughlin & Mitra, 2001). Leaders must consider the multiple pieces needed for creating an effective model to maximize performance, and must focus on plans that will include the organizational values while producing results (Fry & Slocum, 2008). These results may provide an avenue for an analysis of the internal and external environments, and may eventually be used to update the strategic plan.

A microview of potential changes will provide leaders a look into the effects of the alterations and adjustments on faculty and staff. The doers of the organization will be instrumental in the actual outcome of change implementation, including preservation of

the intended structure (McLaughlin & Mitra, 2001). Change without explanation can create fear and uncertainty. Without explanation of the changes, community college business leaders may find resistance from faculty (Tagg, 2012). A key to success in instituting organizational change is communication with employees to ensure their connection to the objectives of the organization (Boggs, 2012; De Matos & Clegg, 2013; Fry & Slocum, 2008; Hohman, Packard, Finnegan, & Jones, 2013). During the transition period, employees should be made aware of new standards and systemic operating procedures (Weick & Quinn, 1999). Community college business leadership should recognize the need for a paradigm shift in higher education and be aware of the needs of their stakeholders (Black, 2015; Castiglia & Smith-Knopik, 2013; Marshak, 2002).

Operational Definitions

Differential tuition: The practice of colleges to offering various tuition rates based on residency location, cost of providing the program, or enrollment numbers (Ehrenberg, 2012).

Assumptions, Limitations, and Delimitations

In the following subsections, I introduce the assumptions, limitations, and delimitations of this study. The assumptions are facts I considered to be true (Corbin & Strauss, 2014), limitations include the weaknesses of the study (Brutus, Aguinis, & Wassmer, 2013), and delimitations are the boundaries (Yin, 2014).

Assumptions

A researcher's assumptions include basic ideas and beliefs about the subject of the study based on previous knowledge (Corbin & Strauss, 2014). There are several

assumptions I made based on the information I discovered through the literature review. I identified a number of suggested strategies leadership can use for sustainability. Based on the initial research, I believed that not all stakeholders would be accepting of the implications of potential resolutions. This is important as previous researchers have uncovered current resolutions to the reduction of funding have been identified, but have not been implemented to include instituting differential tuition and reducing the number of employees. During data collection, I assumed that each participant truthfully explained their experiences of the researched phenomena. I captured, analyzed, and understood the data collected and worked to identify patterns and themes in participant responses, field notes, and organizational documents.

As I proceeded with the study, working with community business leaders and reviewing documents, I assumed that current strategies would mirror those I identified in the literature review. I also assumed that the participants would offer accurate and honest information to develop strategies for sustainability in community colleges. The comprehensive information that I gained aided in the development of strategies for leaders of community colleges.

Limitations

Researchers must identify and explain the limitations or potential gaps and constraints in their research (Brutus et al., 2013). The limitations of this study included the role of the potential participants at the college, validity, and not including quantifiable data. Leadership may enforce organizational change without consulting with those that carry out tasks. Consulting employees about the implications of managerial decisions

may not occur on a regular basis; however, conversations with subordinates may explain how the change will affect the day-to-day operations and potential complications. Employees may have ideas for sustainable measures, but are potentially unable to see the ideas to fruition. Consulting only the leaders may also have limited the validity and extensiveness of the outcome.

Another limitation included a potential reluctance to share trade secrets. Community college business leaders may choose to withhold information they think gives them a competitive advantage in the industry. In addition, the focus on leadership from community colleges in the Central Texas area may not be comprehensive of the community college community and generalizable to the broader population. Finally, my novice research skills and ability could have limited the depth and richness of the data collected.

The study was also limited by the type of data that I obtained. Conducting a qualitative study did not provide quantifiable data that I could have obtained using surveys. This could limit the study and resolution to the business problem by preventing explanation for the purpose behind decisions which maintain organizational sustainability. A secondary study to determine the consequences of implementing the proposed revisions to the business model may be warranted. Future researchers could conduct a quantitative study to determine the success of the sustainability models I explored.

Delimitations

Delimitations are the boundaries of the study, and include the starting and end

point of the research (Yin, 2014). The scope of the study included semistructured

interview data from community college business leaders in Central Texas, and review of

corresponding open source organization documents. The business leaders include

individuals in the positions of chancellor, vice chancellor, deputy chancellor, president,

and vice president. Further, I limited the study to sustainability strategies community

college business leaders in Central Texas use to support budget decisions made to

maintain organizational sustainability. I established these delimitations in order to

account for the variance in population within the boundaries of the community colleges

in the region, included three community colleges to assess institutional differences, and

included at least two business leaders from each institution.

Significance of the Study

Community college business leaders are in need of a sustainability model because

of the high percent cuts in state appropriations (D'Amico et al., 2012; Friedel & Thomas,

2013; Goldstein, 2012; Mitchell et al., 2014; Oliff et al., 2013). The community and

students may not welcome increases to tuition, just as the faculty and staff may not

welcome decreased budgets for delivery of services. A solution is needed to identify

funding strategies community college business leaders can use to support budget

decisions which maintain organizational sustainability.

Contribution to Business Practice

Higher education institutions, like organizations across the public and private

sectors, should implement sustainability models (Driscoll et al., 2013; Mujtaba & Cavico,

2013). The quality of services provided by institutions should be considered (Oliff et al.,

2013), as well as the needs of all stakeholders because their responses could hinder the implementation of strategies to support organizational sustainability (Christofi, Christofi, & Sisaye, 2012; Fry & Slocum, 2008; Kettunen, 2015; Romano, 2012). While discovering potential resolutions to the ramifications of defunding, the organizational mission and bottom line profitability must be kept as a priority (Romano, 2012). The mission and bottom line profitability all contribute to the quality of education and the employability of the graduates, directly affecting the practices of businesses in every community. Education is a human right that is necessary for sustaining the economy and creating future leaders (Driscoll et al., 2013).

Implications for Social Change

A study of strategies to support organizational sustainability in community colleges is important for various reasons beyond ensuring sustainability, and includes benefits to the communities the colleges serve. Implementing sustainability strategies not only safeguards the quality of the education delivered by the colleges, benefiting the faculty, staff, and students (Oliff et al., 2013), but also supports the needs of the local workforce (Crookston & Hooks, 2012). Community college faculty and staff assist in developing students' skills and compentencies to meet the needs of the local workforce (Crookston & Hooks, 2012). As individuals earn degrees and their earning power increases, they begin to contribute to higher income-tax brackets and promote savings in various government programs (Jenkins & Belfield, 2014).

The positive social changes that may result from this study include providing quality, affordable education to improve the lives of individuals, meeting the local

workforce needs, and spurring economic development within communities. Creating a college going culture contributes to the enhancement of society by promoting the development and betterment of the individual and family. This then leads to improvements within the community with additional resources to further economic expansion.

A Review of the Professional and Academic Literature

The purpose of this qualitative multiple case study was to explore funding strategies that community college business leaders use to support budget decisions that maintain organizational sustainability. Through the study, I explored strategies community college business leaders can use to support organizational sustainability. Data sources included semistructured interview data from community college business leaders in Central Texas, and review of corresponding open source organization financial documents. As a result of this study, community college business leaders may review funding strategies that they could use to support budget decisions implemented to maintain organizational sustainability.

In what follows, I review governmental reports, books, and scholarly articles from authors who have illustrated the genesis of the problem and potential strategies used to respond to the defunding of higher education. In this review, I also address potential issues that I identified as resultant from current practices of tuition change, budget reduction, academic program review, course delivery, partnership, community involvement, philanthropy, and retention. The review contains multiple discussions of the need for organizational change, focusing on all stakeholders through various potential

models to maximize performance of plans that will produce results (Fry & Slocum, 2008). Through the use of Google Scholar searches and Google Scholar Alerts, document review assisted in the demonstration of the problem and need for organizational change. I used a total of 190 references in the study proposal, and 152 in the literature review. Of the 190, 181 (95%) are peer reviewed and 170 (89%) have been within the previous 5 years. Of the 152, 144 (95%) are peer reviewed and 143 (95%) have been published within the past 5 years.

In the following pages, I have organized the literature review to begin with a discussion of organizational change and the paradigm shift needed in higher education institutions. Next, I turn to the issues community college administrators are facing as a result of the defunding of higher education. Leadership must restructure the business model to address the reduction in state revenue (Bowen-Ellzey, Romich, Civittolo, & Davis, 2013; Parry et al., 2014; Sazonov, Kharlamova, Chekhovskaya, & Polyanskaya, 2015; Siegel, 2015). I then discuss the need for incorporating organizational change management procedures into the sustainability model. I conclude by discussing potential strategies leaders can consider when creating sustainability models to meet the needs of improving bottom line profitability and organizational sustainability through organizational change.

I gathered resources for study on a weekly basis using Google Scholar alerts after completing an initial search using Google Scholar, Eric, and the Walden University Library. Using these tools, I searched for the following keywords and phrases: *community college and sustainability, future of universities, community college survival, funding and*

higher education, and *community college and budget cuts or budget reductions*. I used

Google Scholar alerts for a seminal review of the issues facing leadership of community

colleges and potential efforts to make improvements to the bottom line sustainability. As

the conceptual framework and new strategies for funding sources emerged from the

literature review, I expanded the alerts to meet the developing needs of my research, and

included the keywords and phrases *differential tuition, organizational change and*

community college, and *community colleges and degrees created by workforce need.*

Organizational Change

Weerts and Ronca (2012) completed a 20-year longitudinal study on state funding

for higher education, reviewing political factors, the health of state budgets, voter

participation, and community support of the institution. While tuition increased at a rapid

pace, appropriations remained steady, and overall state support varied (Weerts & Ronca,

2012). The defunding of higher education had been developing for years prior to the

current escalated budget reductions following the 2008 recession. Tuition at higher

education institutions has risen at a rapid pace from 1993 to 2013 (Castiglia & Smith-

Knopik, 2013). Given the recovering economy over the last 7 years, and 20 years of state

spending on resources in areas other than education, higher education leadership should

develop innovative business models for a solution to the issue (Armenti, 2012).

The defunding of higher education continues to be a dilemma for business leaders

of higher education institutions, and has resulted in the need for organizational change.

Afriyie (2015) suggested organizational change efforts are required to implement

sustainability models in institutions of higher education. When instituting organizational

change, leadership should consider the important aspects for successful implementation.

Crucial elements for consideration in changes to an organization are the culture of an organization, including behavior, values, and norms, top management support, and communication and training throughout the process (Galpin, Whittington, & Bell, 2015; Hohman et al., 2013). Leaders must overcome obstacles placed in previously accepted cultures embedded in daily workflow (Ahern, 2015). Newman-Storen (2014) further explained continuous stakeholder interaction and clear communication could have a significant impact and assist in avoiding complications. Leadership communication may assist in identifying developing issues and fears. Employees may need encouragement or reassurance of their progress and new roles, particularly among faculty.

Faculty resistance to change has been a repetitive pattern for decades and has often caused dissent among peers and toward administration (Tagg, 2012). College leaders have not been proactive in the implementation of changes needed for a competitive edge that involve organization faculty (Corso & Robinson, 2015). A successful approach to organization change includes explaining the benefit, involving stakeholders in the change process, explaining the issues surrounding the institution, and linking change to reward (Tagg, 2012). Galpin et al. (2015) noted frequent review of the change processes by senior leadership captures issues as they arise and enables ease of restructuring to address the issue. Sustainability and organizational changes should align at every level of the process from senior leadership decisions to the daily activities and operations at all levels of the organization. Leadership should determine a manager for organizational change efforts and oversight (Newman-Storen, 2014).

Bowen-Ellzey et al. (2013) suggested a specialized senior leadership position to lead organizational change process and research future initiatives. This individual could be in a new position, or an added responsibility to an existing role. The individual in this role could reduce threats and research opportunities. Nicolaescu, Alpopi, and Zaharia (2015) also found a specialized sustainability manager could maintain efficiency and look for continuous processes for improvement to meet the triple bottom line. He, Chen, and Chiang (2015) suggested there is a significant connection between an educational degree of leadership and corporate social responsibility performance. The level of education may influence leadership's decision of the individual selected to oversee implementation of sustainability into the culture of the organization (Alpopi & Zaharia, 2015; Bowen-Ellzey et al., 2013; He et al., 2015).

When leaders view change as a necessary process for sustainability and incorporate a framework for implementing continuous change into operations, the change will become part of the culture (Newman, 2007). Continuous change efforts will assist leadership in identifying innovative ideas, balancing current interest, and improving operations (Bowen-Ellzey et al., 2013). Leadership that implements continuous change has the advantage of support and acceptance from employees that otherwise may resist (Weick & Quinn, 1999). As change becomes a part of the culture of an organization, the process becomes part of daily workflow and procedures. Continuous change may improve efficiency and goal attainment, benefiting internal and external stakeholders (Bowen-Ellzey et al., 2013; Newman, 2007; Weick & Quinn, 1999). Once leadership assigns the task to an individual, the steps toward a sustainable future may begin

(Newman-Storen, 2014).

The first step in the process of change is leadership becoming an advocate for innovation, creation, and sustainability (Newman-Storen, 2014). The emphasis of change should surround a systemic view of the organization instead of individual problems. When leaders focus on incorporating sustainable efforts through organizational change, they are working toward long-term benefits (Bateh, Heaton, Arbogast, & Broadbent, 2014). Newman-Storen (2014) suggested sustainability is an art form that creates new designs, form, and content.

Sustainable Futures Through Profitability and Employee Engagement

The effects of diminishing college budgets require further study to explore funding strategies that community college business leaders use to support budget decisions that maintain organizational sustainability. The cuts in state higher education funding in 2008 have not been reinstated to previous levels, requiring leadership to discover a solution for sustainability (Goldstein, 2012; Romano, 2012; Zumeta, 2012). Researchers have uncovered potential resolutions to the reduction of funding in the 6 years that have followed the 2008 recession, but have not progressed to implementation and the dependency of leadership upon funding continues to be an issue (D'Amico, Friedel, Katsinas, & Thornton, 2014). Leadership must discover effective strategies for sustainable futures that meet the needs of all stakeholders (Christofi, et al., 2012; Kettunen, 2015; Romano, 2012). Managers must consider numerous factors and potential outcomes for the organization.

The concept of sustainability includes revenue growth and concern for

environmental and social issues (Bateh et al., 2014; Smith, 2012). The concepts are

important in determining initiatives that keep education affordable and of high quality,

and stakeholders satisfied. Administrators must embrace reality and focus on

implementing organizational changes that will enable a sustainable future (Mullin, 2014).

Strategies to support budget decisions which maintain organizational sustainability could

include new business models for sustainability with specific programs that separates an

institution from all others, the ability to adjust to meet new opportunities and reduce

threats, include resources for continuous development, and exploration of new funding

streams (Phelan, 2014).

Sustainability models are an important aspect in organizational development,

specifically in considering the triple bottom line (Bateh et al., 2014; Smith, 2012).

Community college business leaders could focus on the creation of a sustainable business

model with a future focused on innovations and change that will meet stakeholder needs

and incorporate business strategies (Lai, Lin, & Wang, 2015; Otara, 2015). This may

include considering the effects of the changes on the faculty and staff, students, and

community.

Researchers are looking into the benefits of the triple bottom line; addressing the

financial bottom line of the organization while considering social responsibility and

environmental impacts (Ahern, 2015; Arbogast & Thornton, 2012; Nicolaescu et al.,

2015; Saeidi, Sofian, Saeidi, Saeidi, & Saaeidi, 2015; Svensson & Wagner, 2015).

However, Perez (2015) suggested the benefits of the nonfinancial aspects are theory

based, few in numbers, and not conclusive. Longoni and Cagliano (2015) have opposing

views that demonstrated positive effects from efforts that benefit society and the environment. Saeidi et al. (2015) offered similar views and concluded that there is a significant relationship between a strong reputation and industry advantage as a result of leadership engagement of corporate social responsibility.

As the competitive advantage increases, value may increase through financial gains. Sustainability efforts could boost profits and create a competitive advantage in organizations. Researchers have offered conflicting information on social and environmental benefits, but the financial aspect of the triple bottom line is critical to sustainable operations (Ahern, 2015; Arbogast & Thornton, 2012; Longoni & Cagliano, 2015; Nicolaescu et al., 2015; Saeidi et al., 2015; Svensson & Wagner, 2015). The recent increase in organizational learning initiatives appeared to have slowed the research of sustainability (Smith, 2012). In efforts to begin developing sustainability measures, leadership should engage stakeholders to ensure they are addressing all issues affecting the bottom line and not creating new concerns.

Innovation, through utilization of people and consideration of community needs, is critical in the development of a new business plan to address sustainability (Smith, 2012). Leadership should consider changes suggested by the stakeholders and the potential effects the changes will have to the culture of the organization. Linnenluecke and Griffiths (2010) suggested the culture is often the cause of failure when implementing new organizational change programs. Leaders who incorporate the values of the organization into change management enable growth, learning, and engagement of employees.

Employees who are engaged in the change management process may diminish potential pressures surrounding organizational change. Flanagan (2012) suggested that innovative sustainability models for higher education institutions will reduce the threats presented as a result of budget reductions, but the process might present disruptive change for employees. External agencies could assist in discovering new avenues for opportunity, growth, and approaches to profitability (Flanagan, 2012). Yeh-Yun Lin and Liu (2012) noted employee involvement in the process of change could generate innovative concepts to aid in creation of a sustainable future for the organization. Researchers have suggested that leaders should allow staff from various levels of the organization, including those in nonmanagement positions, to contribute to the change process (De Matos & Clegg, 2013; Mannen, Hinton, Kuijper, & Porter, 2012; Newman, 2012). Employee engagement may create a sense of ownership in the process, allow for creative ideas, and encourage cooperation among team members. When employees are motivated, they contribute to advancement of the organization including assisting in creations of funding strategies and encouraging acceptance of new mandates among their peers.

Application of Funding Strategies

Leaders of institutions of higher education are one of numerous organization leadership groups across the United States who must identify innovative ideas for future sustainability, while balancing the issues presented in 2013 by the defunding of higher education (Bowen-Ellzey et al., 2013; Sazonov et al., 2015). Community college business leaders saw a downward trend in the funding provided by the majority of state

administrators following the 2008 recession, equating to $2,026 lost per student (Mitchell et al., 2014). This statistic is important considering higher education policy and affordability originates at the state level with funding fluctuating for two decades prior to 2014 (Delaney, 2014). State administrators are balancing funding college with other state funded programs.

State officials must determine what state programs are in the greatest need within their limited budget to include healthcare for poor, public schools districts, and welfare, while balancing inflation (Lambert, 2015; Oliff et al., 2013). Higher education is a significant line item in state officials' reduced budget many do not support or have time to understand the consequences from defunding (Lambert, 2015). As state officials have reduced funding and inflation increased, college leaders saw an increase in higher education enrollments (Oliff et al., 2013). As postsecondary education becomes more of a necessity for employability, tuition has exceeded inflation and the average family income (Kirshstein, 2013). The new issue of tuition spikes has surfaced, but the concern for defunding is not new to community college leadership.

Disagreements and fiscal crises have surfaced during conception of the idea of the community college in the 1960s and continued over the last several decades (Phelan, 2014). Goldstein (2012) suggested the decline in funding is succeeding a downturn in governmental support of education in the decade preceding the 2008 recession. Administrators are encouraged to continue to maintain programs with a significant decrease in the fiscal budget. D'Amico et al. (2012) proposed the reduction of financial support is not a trend, but a new reality. State administrators will not contribute additional

dollars to offset the continuous increase of education costs (Armenti, 2012). When state officials make budgetary decisions, they take into consideration the state of the United States and their state economies (Zumeta, 2014). Nearing a decade beyond the 2008 recession, state leaders are cautious in regard to increasing higher education allocations and not in a position to reinvest into higher education (Zumeta, 2014). In efforts to maintain a sustainable future, college leaders must consider organization changes to create new business models and funding streams.

The defunding of higher education by state leaders has led administration to make decisions that will impact sustainability and multiple levels of constituents. The role of the president during the change is a figurehead and spokesperson for the institution, the final decision maker, and a target for condemnation (Fleming, 2012; Romano, 2012). While all relationships within the environment are of importance, the relationships with the faculty tend to be problematic and influence the prosperity of the institution (Fleming, 2012; Tagg, 2012). Fleming (2012) suggested a code of conduct for the president to include clear guidelines, open communication, ethical actions, and financially responsible. Finally, the president must make decisions that are all-encompassing of employee needs, while meeting the mission, vision, and values (Fleming, 2012; Romano, 2012).

Reduction of state budgets and difficulty acquiring funding has resulted in tuition increases, tax increases, and operational budgets reduction (D'Amico et al., 2014; Dougherty et al., 2013; Friedel & Thomas, 2013; Goldstein, 2012). On average, state administrators are spending 28% less and higher education tuition has risen 27%,

effecting both private and public universities (Epple, Romano, Sarpca, & Sieg, 2013). Community college leaders are in the most difficult predicament with increased enrollments as a result of university tuition spikes, but with an equivalent reduction in funding (Barr & Turner, 2013; D'Amico et al., 2012). The reduction of state funding has led most leaders to target tuition for increased funds with some seeking to cut resources.

As a result of limited state funding, leadership has implemented tuition increases, identified unconventional funding streams, and revised the organizational structure (Lambert, 2015). Eddy (2012) exposed the need to consider resources management in rural areas in low taxing districts of the community college due to a large percentage tax-exempt land and low-income residents. Carter (2012) discovered legislator imposed reductions resulted in obstructing progress through the inability to hire required faculty and staff, tuition increases to adjust for reduced funding, and lack of adequate compensation for staff. The obstruction of progress from financial challenges may lead to unforeseen issues within the organization.

When employees are overworked and in stressful environments, they tend to develop negative attitudes and decreased levels of well-being (Burns & Machin, 2012; Mintz-Binder & Calkins, 2012). A positive working environment may promote both the employee and organization (Burns & Machin, 2012; Mintz-Binder & Calkins, 2012; Yeh-Yun Lin & Liu, 2012). As change occurs, management should consider the effects on the employee and organization (Burns & Machin, 2012; Houmanfar, Alavosius, Morford, Herbst, & Reimer, 2015). Employee motivation is an important element of organizational change success and a positive climate (Yeh-Yun Lin & Liu, 2012).

New Business Models

The effects of the recession of 2008 have been lasting in community colleges to include budget reductions and the need for employees to do more with less. In addition to reduced funding from state officials, enrollments at community colleges have increased with community members looking to train in areas that meet the needs of the local workforce (Manning & Crosta, 2014; Romano, 2012). Reduced funding and increased enrollments led to an even greater reduction of funding per student than anticipated at community colleges, as they are the lowest funded higher education institution (Jenkins & Rodriguez, 2013). In dealing with the budget reductions, and in moving forward, the response and encouragement from leadership is vital in the success of future operations (Newman, 2007). Prior to moving forward with a change, management should consider the project completion timelines, potential growth, staffing issues, and operational budgets (Bowen-Ellzey et al., 2013).

In efforts to create new business models for higher education institutions, leadership should consider the implications to the various facets of their operations. Community colleges may have constituents that reside in the boundaries of world-wide operations, large cities, or small poverty-stricken, rural areas with additional financial restrictions (Eddy, 2012). Eddy (2012) suggested sustainability models must include business models for leadership in various situations. This could include new funding streams, the review of line items within the budget for unnecessary spending, and identifying areas to reduce allocated funds (Bers & Head, 2014). As leaders explore options, they should consider budgetary implications.

Leadership should connect the strategic goals to the budget and potential future revenue streams (Saunders, 2014) and explore opportunities to diversify their funding sources (Sazonov et al., 2015). Leadership could institute zero-base budgeting and require managers to focus on new and creative ways to determine actual needs each year and eliminate items not tied to the strategic goals (Palmer, 2014). The plan could incorporate all aspects of traditional planning to include internal and external college specific issues such as enrollment management, academic program revenue, and state budget and reporting requirements.

I can assume that all stakeholders would welcome new funding streams, those other than increased tuition, as institutions would be able to continue developing individuals able to meet the needs of the local workforce (Crookston & Hooks, 2012). New revenue avenues will be important for administrators to take into consideration when making a determination for courses of action. External funding requires new partnerships and innovative ideas for growth to include potential research and various educational programs for the community (Kettunen, 2015). Strategies could include looking at successful models from other industries, involving student insight, and viewing education from a future standpoint. Possible funding sources could include tuition increases, differential tuition, budget reductions, review academic program revenue, new delivery modes, partnerships, community involvement, philanthropy, and retention programs.

Tuition increases. In efforts to continue operations and implement new state and federal unfunded mandates, numerous administrators have turned to tuition increases as a

funding stream (Kirwan & Zeppos, 2015; Phelan, 2014). Various institutional leaders have implemented sharp increases in tuition, passing the burden from the state, through the institution, and on to the students (Blount & Rodriguez, 2015; Mitchell et al., 2014; Leachman & Mai, 2014; Rabovsky, 2012; Zumeta, 2012). The practice leaders have created allows operations to continue with a sense of normalcy.

Kirshstein (2013) noted the rise in tuition is not a result of increased spending, but a reaction to the reduction of state appropriations. Leadership could benchmark their efforts to establish the need for tuition increases. Stakeholders may relate to the purpose behind the budget cuts and increased tuition (Mitchell, 2014). Regardless of the reason, the consumer may choose an alternate college with more affordable tuition rates (Langelett, Chang, Ola'Akinfenwa, Jorgensen, & Bhattarai, 2015). Community college tuition rates vary and families with financial stress may choose solely on price.

While tuition increases may present an option for sustainability of the institutions, it increases the financial strain on families and prohibits low-economic students from entering college (Erickson, 2012; Goldstein, 2012). Giroux (2015) further explained in addition to low-economic status students, families of the working class may also lack the financial means to send their children to college. Individuals unable to afford a college education miss the potential of the rewards and future personal improvements, to include increased earning power (Oreopoulos & Petronijevic, 2013). Jenkins and Rodriguez (2013) suggested leadership implementing tuition increases create social problems for the community. As the environment of higher education changes, leaders must focus on affordable and effective education (Erickson, 2012; Siegel, 2015). Leaders could

implement tuition increases based on program cost and earning power.

A few community college leaders have started to implement differential tuition based on program enrollment and the operational costs versus a standard tuition rate (Friedel & Thomas, 2013; Phelan, 2014). Varying tuition options goes beyond the rates community colleges leaders create for residents and nonresidents and allows for programs with costly operating budgets to include fees, or those that are far less costly, offered at a condensed rate. In addition to the cost of providing education, leadership could implement differential tuition based on the potential earning power of the student by the chosen degree (Amirault, 2012; Ehrenberg, 2012; Webber, 2014). Differential tuition, a previously identified potential resolution to the problem, would require department heads to sustain enrollments in the technical programs after implementation of the increased tuition. Based on prior research, community college administrators do not favor the concept of differential tuition (Driscoll et al., 2013; Friedel & Thomas, 2013) and some state officials may not approve the concept (Amirault, 2012). Stakeholders and leaders may lack confidence in the positive effects from differential tuition due to minimal research and implementation.

Further research would allow an individual to determine whether institutions can potentially increase the bottom line while ensuring funding of all programs (D'Amico et al., 2012; Friedel & Thomas, 2013; Goldstein, 2012; Mitchell et al., 2014; Oliff et al., 2013). Support of the community is important to administrators, and ultimately to profitability. If the community does not support the decision, the program revenue will not increase. While the community might not accept differential tuition, the other options

would affect students across the board (Driscoll et al., 2013; Friedel & Thomas, 2013).

Davidson (2015) offered an alternative option of implementing a tuition incentive to increase revenue based on an attempt to increase enrollments. Through a qualitative study, Davidson (2015) found students completing 30 credits in their first year have a greater chance of completing their educational goal. Institutional leaders could offer a tuition incentive to students for all classes beyond a full load of 12 hours (Davidson, 2015). Leadership instituting tuition incentives could experience revenue growth based on encouragement of larger course loads. Amirault (2012) and Matthews (2013) offered similar views in that leadership encourage enrollments through a few massive open online courses (MOOC) for fee with the hopes students will continue with the institution upon completion of the free courses.

Reduced budgets. Community college leaders have opted to take an approach to offset shrinking budgets by increasing tuition (Baum, Kurose, & McPherson, 2013; Crookston & Hooks, 2012; Kirshstein, 2013), or have taken another approach to balance the reduction of state funding (D'Amico et al., 2012; Dougherty et al., 2013; Friedel & Thomas, 2013; Goldstein, 2012). To avoid an increase in tuition, or as a supplement to slight increases, leaders at some campuses are implementing reductions in operating budgets (Jenkins & Belfield, 2014; Sazonov et al., 2015). Jones and Wellman (2010) suggested the benefits of cutting spending outweigh the issues leaders create with tuition increases, differential tuition, or an increase in philanthropic efforts. Budget reductions are internal and do not require community approval.

Managers have identified a variety of cost saving measures in campus operations.

An increase of adjunct faculty, reduction of faculty to student ratio, elimination of high

cost and low production programs, and reductions of services to students have been

enacted to aide in the revenue loss (Amirault, 2012; Baum et al., 2012, 2013; Jenkins &

Rodriquez, 2013; Mitchell et al., 2014). The increased use of adjunct faculty appears to

be a general strategy. Petrina and Ross (2014) noted the increase of adjunct faculty is a

result of the Great Recession of 2008, appearing to be the new trend. The House

Committee on Education and Workforce Democratic Staff (2014) reported the usage of

adjunct faculty is now up to 75.5%. The funds needed for adjunct versus full-time faculty

are less due to a reduction in cost per course and the ability to avoid paying benefits

(Hollis, 2015). Using adjunct faculty enables administration to adjust for defunding from

state officials and avoid tuition increases (Amirault, 2012; Castiglia & Smith-Knopik,

2013; Ehrenberg, 2012; Erickson, 2012; Hollis, 2015; Phelan, 2014). Jones and Wellman

(2010) suggested the alternative view to reduce the cost of benefits by offering a tiered

program that grows with the years of service by full-time faculty. A reduction in full-time

faculty members may cause adverse effects on faculty and students.

     As administration reduces the number of full-time faculty, the commitment to the

student and retention rates may suffer. Hiring more adjunct faculty is an option leadership

can take, but currently viewed as a negative effect for morale and potentially on student

learning outcomes (Benson & Trower, 2012; Zumeta, 2014). Adjunct faculty members

are not required to assist in college-related functions, nor are they committed to

curriculum and department development (Hollis, 2015). Bers and Head (2014) noted

there is a degree of difficulty for administration to determine a cost analysis on faculty

loads given the adjustment to salaries for overload compensation and the actual cost of a faculty position. Faculty positions are not the only area affected by budget reductions.

The effects of the budget reduction may extend beyond the faculty to staff. The workload of the support staff has continued to increase with minimal pay increases (Petrina & Ross, 2014). Together, increased adjunct faculty and staff workloads have changed the focus implemented by leadership at various colleges to the new political climate (Petrina & Ross, 2014). As positions become vacant, the positions remain open because of hiring freezes enacted to assist in the defunding crisis (Goldstein, 2012). An alternative to hiring freezes would be for leadership to discontinue salary increases (Erickson, 2012). Endorsing these types of circumstances could generate the potential for substandard programs (Oliff et al., 2013). In an opposing view, Carter (2012) stated the eroding budgets have not reduced the quality of education; however, faculty and staff have become frustrated by the requirement to do more with less support. Leadership may choose to focus instead on a reduction of physical properties across campus.

King and Sen (2013) suggested leadership consider reducing the physical aspect of unnecessary tangible bricks and mortar programs to include the library services. Kadamus (2015) suggested leadership build strategically, weigh the needs of updating versus building, incorporate, and incorporate proactive maintenance schedules to reduce future costs. While leadership struggles with the restrictions of lost funding, they should continue to maintain facilities to attract and retain students (Kadamus, 2015). Managers must balance physical plant management and classroom operation costs against and budget shortfalls and sustainability.

Academic program revenue. A setback facing community college leaders may be the very nature of the community college. The transient student body of the community college population equates to the lowest percentage of graduates, the lowest funding per student, and the ethical dilemma to increase tuition or meet the purpose of supporting the needs of all students (Jenkins & Rodriguez, 2013). The characteristics of a community college student restrict the amount of performance funding state governmental leaders award (Belfield, Crosta, & Jenkins, 2014; Dougherty et al., 2014). Performance funding is an initiative state governmental leaders enacted requiring college leadership to be accountable for the completion rates of their student body (D'Amico et al., 2014; Dougherty et al., 2014; Kerby, 2015; Rabovsky, 2012; Wilson, Hu, Basham, & Campbell, 2015).

Students can enroll in a workforce education or academic program. Students enrolled in academic programs often transfer prior to degree completion. Not all enrollments at community colleges are considered completers as students are not college ready upon entering based on open admissions, are not retained each semester, and only desire to earn a few credits prior to transferring (Belfield et al., 2014; Dougherty et al., 2014). Managers could conduct an audit to determine the revenue stream for each degree program.

College faculty and staff produce goods and receive revenues as any other business (Romano, 2012). Community college leaders have started reviewing the cost efficiency and degree completion of academic programs offered at their institutions (Bers & Head, 2014; Erickson, 2012; Jones & Wellman, 2010; Mitchell et al., 2014).

Administrators could focus on programs that produce results within departments, make a

difference in the community, and impact future leaders (McCauley, 2014). Manning and

Costa (2014) further suggested leadership should determine the cost per student within

individual programs and create a pathway cost for the individual student to estimate how

much their education goal will cost.

Students may review the program cost and potentially make plans to complete the

goal with the time and financial resources available. Implementing a pathway approach

could increase the efficiency of academic departments and the individual programs

(Manning & Costa, 2014). Program reviews conducted by departmental and budget office

staff could gather data to illustrate program revenue based on enrollments, class size,

instructor pay level, and operating expenses (Bers & Head, 2014; Erickson, 2012; Jones

& Wellman, 2010; Mitchell et al., 2014). Leadership may use the data to alter enrollment

management, combine programs, and restructure schedules.

Delivery modes. To meet the changing demands of the student population and

increased enrollments, management consideration of distance education, accelerated and

flexible schedules, and competency-based education may capture a new student

population and an additional funding stream. As the course delivery modes change and

adapt with technology, traditional boundaries and student demographics change

(Castiglia & Smith-Knopik, 2013; Corso & Robinson, 2015; Mujtaba & Cavico, 2013).

To aide in the flexibility of distance education, leaders could offer students the ability to

use their phones and tablet to gain access to the course, library access, and interaction

with their peers (Vazquez-Cano, 2014). Introduction of technology into the classroom

could enhance the user experience and entice new students to attend (Kukulska-Hulme, 2012). The advances in the classroom extend beyond student resources and into potential options for alternative delivery modes. Increased enrollments and user satisfaction may have a positive effect on funding streams.

Leadership could consider implementing and adding to their distance education programs for an alternative course delivery mode (Amirault, 2012; Castiglia & Smith-Knopik, 2013; Ehrenberg, 2012; Erickson, 2012; Jenking & Rodriguez, 2013; Jones & Wellman, 2010; King & Sen, 2013; Matthews, 2013). Managers who implement distance education courses meet the needs of the changing student body and provide a delivery mode with reduced overhead costs (Castiglia & Smith-Knopik, 2013). Castiglia and Smith-Knopick (2013) and Lucas (2014) agreed with the need to offer online classes and the potential for a blended format to enhance traditional face-to-face classes. Keohane (2013) established online learning as a change element that must be embraced, but argued that faculty will no longer connect to campus and engage with their students. Leaders could begin the shift in delivery mode through offering a few principle courses in the online environment.

The change in delivery mode could include a learning management system or creation of MOOCs typically offered as a free course. Schejbal suggested (2012) state government officials have made it difficult for some leaders of higher education to offer distance learning classes due to the requirement to pay a fee to allow students across state lines to enroll in the university. Lucas (2014) suggested additional cost factors including distance learning programs are expenses to develop, increased expenses through locating

faculty that have experience, and creating a position in administration to champion the project such as a dean or associate dean. Administration must consider the potential costs for technology; however, there are methods for implementation at a pace that reduces the cost (Desai, 2012). Programs are now available as plugins to online formats that do not require the expense of employing a subject matter expert (Amirault, 2012). There are multiple options available to meet the various budgetary constraints and faculty experience.

College leaders implementing MOOCs create an interest for education in a free nonthreatening environment that a student can receive a certificate of completion, but do not earn credit (Matkin, 2012; Matthews, 2013). Weller (2015) noted while leaders can change the format and ease of online education, there is not a system to track users, enrollments, and learning outcomes. Numerous college officials offer MOOCs free to the student, but are costly to the institution (Dellarocas & Van Alstyne, 2013). The free business model may not be sustainable.

Leaders at some institutions have created a fee system to allow a student to pay to earn credit at the conclusion of the course (Matthews, 2013). Matkin (2012) suggested that, in efforts to meet the changing needs of society and gain a competitive advantage, university leadership incorporate open source education into a new business models. In addition to college leadership, business leaders are offering non-credit free education to meet workforce needs (Matkin, 2012). Students are not limited to seeking education from the traditional bricks and mortar environment with fall and spring semester parameter.

Competency-based education is another alternative delivery method of traditional

education (Castiglia & Smith-Knopik, 2013; Johnstone & Soares, 2014; Matkin, 2012; Schejbal, 2012; Wilson et al., 2015). College and industry leaders implementing competency-based education enable the learner to spend time needed to master learning from days to months (Castiglia & Smith-Knopik, 2013). Adult learners are attracted to the freedom of modular learning (Makin, 2012). Aithal et al. (2015) suggested an aptitude format through redesigning the curriculum in higher education institutions. Boahin and Hofman (2012) had similar findings, but noted issues include lack of motivation, reduced guidance and ability of staff, and the question of the validity of the assessments.

Faculty could modify competency-based modular learning for remedial courses often in high demand within the community college setting. A large number of students are in developmental education and lack of preparedness coming out of high school (Bettinger, Boatman, & Long, 2013). Students may progress as needed instead of sitting through a traditional course, similar to competency-based education, but with additional resources. Faculty could ensure student mastery prior to student advancement, a balance of lab version instruction time, a required attendance policy (Twigg, 2013). A fairly new program pairs a development course with a college credit class, increasing the student achievement and their commitment (Bettinger et al., 2013). Administration willing to allow a redesign of the programs could reduce spending by as much as 20% (Twigg, 2013). The competency-based education model some leaders have instituted, allows students to pay a fee and take as many classes as they can within a given window of time (Schejbal, 2012). Leadership may use current resources to create strong competencies

that are student centered and affordable options for the adult learner (Johnstone & Soares, 2014).

Partnerships. New funding streams for revenue growth could include various partnerships with external organizations. As leaders expand programs, it is important they consider alignment of the goals with the mission. Possible programs include increased secondary and university partnerships, increased job preparation programs, and stronger ties with the local workforce commission (Cejda & Jolley, 2014; Desai, 2012; King & Sen, 2013; Stephenson, 2014; Venezia & Jaeger, 2013; Vila, Perez & Morillas, 2012; Wilson et al., 2015). The benefits of collaborative partnership include a reduction of allocated resources for operations and efficient programs leading to sustainable futures (Glowacki-Dudka & Murray, 2015). Leaders may easily identify and create partnerships with the administration of independent school districts.

In efforts to determine a sustainability model, an area for community colleges leaders to consider is creation or expansion of dual credit programs and college connection programs for students struggling to meet college readiness requirements (Venezia & Jaeger, 2013). Partnerships with school districts may increase enrollment numbers for dual credit students and potentially 2+2 programs for students to complete their degree upon high school graduation. Venezia and Jaeger (2013) suggested one of the biggest problems today that challenge school district administrators is the increasing number of students that are not college ready, or not prepared for advanced and rigorous courses of study. Programs college administrators offer that provide early exposure may not only increase enrollment numbers through secondary education administration

financial support, but may provide encouragement for students to continue taking courses with the institution post high school graduation. Administration may start agreements may start with a few initial programs and low costs for secondary leaders.

Grant money may be available to assist in creating partnerships and programs, but leaders can take other steps to establish and implement dual credit programs. Stephenson (2014) suggested that a key element is shared input and goal creation, with or without outside funding. Through a shared vision, the two institutions can create a system to reduce course redundancy, increase college enrollment rates, and improve completions through seamless transitions each year (Stephenson, 2014). School district officials may use allotment funds to cover the tuition cost or may split it with college officials and families. Leadership that supports dual credit programs could see increased enrollments, improve retention, and increase completers, which contribute to sustainability. In addition to dual credit programs, other partnerships include articulation agreements for vocational technical courses in the independent school districts and university articulation agreements.

The trend of creating articulation efforts is important for the sustainability of various higher-education institutions (Cejda & Jolley, 2014). Leadership that creates articulation agreements may generate an opportunity for continuing programs, expansion, and enrollment growth. In addition to benefits for revenue, students' completion rates are positively affected (Desai, 2012). Gunn and Mintrom (2013) suggested partnerships may aide organizational learning, increased knowledge, and improved communication among faculty and staff. Articulation agreements created between community college and

university leadership promote a program that might allow students to save money. State leaders endorsed creation of articulation agreements as an effort for leadership to increase completion rates (Texas Higher Education Coordinating Board, 2015). Students could attend a community college at a reduced tuition cost to take the core curriculum, prior to transferring to a university or earn a technical degree to increase employability.

Another possible partnership is for leaders to join forces with community and businesses leaders to create or expand programs to meet the needs of industry. Leaders must network, communicate, and engage community members for support and continuously seek new opportunities for collaboration (Phelan, 2014). Leaders could construct degree programs that benefit the community and dissolve those that are not of benefit (Drucker, 2015; Yarnall, Tennant, & Stites, 2016). Educators prepare students for local workforce needs and circumstances beyond the city limits and the local culture (Boggs, 2012). Cejda and Jolley (2014) suggested managers of professional organizations need customized programs to support the needs of their organization. Vila et al. (2012) suggested similar views in that education extends beyond the ability to earn a degree, but also in the practical application of knowledge in job performance. Partnerships of this nature could lead to securing additional revenue and in kind building donations adding to the sustainability of the college and benefits for the community. Selected courses could be for credit or non-credit course offering specialized in meeting the needs of a specific industry.

Leiker, Hutto, and Campos (2014) researched the partnership between Houston Independent School District and the University of St. Thomas. School district officials

offered their staff the opportunity to apply for a MBA with principal certification degree. The specific program leaders created addressed a need in the community for future principals that were also educated in business practices (Leiker et al., 2014). There was a need college leadership filled in the community while creating a new funding stream to increase revenue.

To begin new community programs, departmental leaders should strengthen their advisory boards and include business leaders, chambers, workforce development staff, and economic development officials (Cejda & Jolley, 2014; Saunders, 2014). As the needs of the community members change, educational opportunities should reflect the growing needs of economic development (Lobo, 2015; Otara, 2015; Sazonov et al., 2015; Yarnall et al., 2016). Saunders (2014) expanded the view suggesting the purpose of college officials using an advisory board is to address the needs of the community and workforce in current and future projections. The implementation or strengthening of advisory boards could address Schram's (2014) concern that institutional leaders promise skills to enhance specific careers that do not equate to new or improved careers. Without a source of income, graduates cannot afford to repay student loans and then become a burden to society members (Schram, 2014). Saunders (2014) also suggested advisory boards to include state officials. State officials may provide a broad outlook on the needs of the workforce beyond the local community and have insight into future funding opportunities. Isaksson, Garvare, and Johnson (2015) suggested adding the values of individuals, the community, and environment to the curriculum to enhance the commitment to sustainable practices.

Sustainable practices begin with leadership communication. Cejda and Jolley (2014) suggested college administrators, like other business leaders, use their resources to strengthen internal and external communication, bring groups together, and discuss potential challenges. Sazonov et al. (2015) and Vila et al. (2012) presented similar views, and also noted the mutual benefit in the connection to business and industry in higher education. The relationship is a process that requires frequent communication, trust, shared leadership, and stated objectives (Rast, Tourani, & Aslan, 2015). As conflicts arise, leadership should collaborate on views and attempts to resolve issues (Rast et al., 2015). Partnerships between the two can potentially produce new revenue streams. Connecting education to practical application could assist leaders in forming mutually beneficial programs.

Community involvement. In addition to creating partnerships with community leaders, involvement in the community could generate growth and positive brand image. Community interaction might be difficult to produce, as it would require a paradigm shift in thinking at many colleges (Fortunato, Theodore, Frumento, & Klos, 2015). Othman and Othman (2014) conducted a study on a public and a private university and concluded the efforts to include social responsibility into their mission and vision increased interest in their programs and enrollment growth. Once leadership identifies the stakeholders, their needs should map to the strategic plan and then reviewed continuously for improvement (Kettunen, 2015). Leadership choosing to incorporate community involvement into the strategic plan not only encourages growth for the college and the community, but creates trust in the minds of the citizens (Afriyie, 2015; Lou, 2015;

Mujtata & Cavico, 2013). Trust, in the minds of the consumers, may have a positive influence on revenue and growth.

Leaders should stand on strong values, act in favor of and serve in active roles in community, and serve their stakeholders and society (Lou, 2015; Mujtaba & Cavico, 2013). Staff and faculty of all levels of the organization, beyond top management, can be included in outreach efforts. In efforts to create sustainable futures, leadership should demonstrate meaningful relationships within the community beyond volunteering and incorporating change to include service-learning projects for students (Stewart & Alrutz, 2012). Texas legislators and administration at the Texas Higher Education Coordinating Board representatives charged campus leadership with creating human capital and knowledge for the future workforce (Holcombe, 2015). Too and Bajracharya (2015) suggested student groups focus on campus and community improvements that reduce operating costs and assist in protecting our environment. Integration with local businesses may increase student awareness of local issues and encourage a sense of community (Lou, 2015). As students successfully enter the workforce, their accomplishments could encourage future enrollments.

If faculty encounter adversity beginning a partnership, leaders may provide guidance and support. Leadership should play a role in assisting faculty and staff in locating groups with similar goals and acknowledge them upon completion of their work in the community (Clifford & Petrescu, 2012). The current practice of faculty engagement typically ends with the course or in the campus business center, when instead efforts could continue into the community through interaction and engagement with the

citizens to improve society (Fortunato et al., 2015). Public relations staff members can also support staff in building relationships with community members, promote the college, and create awareness of the programs (Afriyie, 2015). Outreach efforts could assist in building lasting partnership beneficial to all parties.

Philanthropy. One area often overlooked is matching gifts from organizations or individuals (Drummer & Marshburn, 2014). Drummer and Marshburn (2014) suggested corporate leaders might donate as much as 5% of their annual income each year to nonprofit organizations. Leadership in community colleges has turned to donors to assist in meeting the financial need for new buildings and operations (Gyllin, Miller, Morris, & Grover, 2015). While donations from individuals and leaders of organizations can create new revenue streams, the provision might not be in line with the institutional goals and include unforeseen future costs (Saunders, 2014). Erickson (2012) and King and Sen (2013) offered opposing views noting that in turbulent economic times leaders must account for not only the loss of funding, but the reduction of philanthropic support. Leadership may overcome hardships through dedication and support of the foundation director.

To implement a successful program, leadership must dedicate resources, hire adequate staff and technology in the foundation office, incorporate a broad focus on expansion, and create relationships with donors for increased commitments (Gyllin et al., 2015). Drummer and Marshburn (2014) suggested other elements include strong president and board support, a separate foundation board from college operations, and a strategic plan. Strategies could include annual campaigns that span the community,

alumni support, special events, planned gifts from estates, online giving, and specialized

communication through e-mails and newsletters. Regardless of the activity level of the

foundation staff, leaders must incorporate the strategy into that of the strategic plan for

the college, it should be a team effort throughout the college, and staff should establish

relationships with the donors (Drummer & Marshburn, 2014).

Retention programs. In times that state administrators have reduced funding,

they have also implemented requirements to increase learning outcomes and define

completions (Phelan, 2014). As a result of the decline in tax revenue at the state level, the

creation of performance funding by state officials required leadership to be accountable

for the completion rates of their student body (D'Amico et al., 2014; Kerby, 2015;

Dougherty et al., 2014; Rabovsky, 2012; Wilson et al., 2015). McKeown-Moak (2013)

further suggested that the new funding model includes leadership commitment to not only

student completion rates, but the needs of the state and the economy. Community

colleges are open access which enables anyone, even those not college ready to attend

(Davidson, 2015). State performance funding for community colleges hinges on student

success (D'Amico et al., 2014; Dougherty et al., 2014; Kerby, 2015). Dougherty et al.

(2014) and Rabovsky (2012) suggested performance funding measures set by state

officials have encouraged higher education leaders to refocus their operating budgets, but

there is no evidence student success increased.

President Obama implemented the student success challenge to leadership to

increase student success and completion, focus on student learning, and show the

importance of community college education (Boggs, 2012). Wilson et al. (2015) reported

the Community College Futures Assembly members support the effort to focus on

student outcome in efforts to increase completion rates for performance funding revenue.

Beyond the current requirements, state leaders considered implementation of a new effort

to increase the current completion rate of 38% to 60% (Texas Higher Education

Coordinating Board, 2015).

Leadership must create new models for student achievement to affect

sustainability (Barreno & Traut, 2012; Davidson, 2015). Kerby (2015) suggested a

flexible retention program aimed to adjust the student and college environments. A

potential program could include leadership focusing on predictive measures to include

aptitude tests, financial factors, GPA, sociocultural factors, and student academic and

professional goals (Kerby, 2015). In addition, the factors can fluctuate based on the

climate of the institution. Community college leaders could increase revenue received

from formula funding by committing to efforts to increase student retention and

completion. Berreno and Traut (2012) suggested academic support, orientation classes,

student activities conducive to the student population, and promotion of student success

stories. Leadership may design retention programs to keep students enrolled until their

academic goal is accomplished.

Retention efforts should include various offices across an institution. David,

Sivadon, Wood, and Stecher (2015) suggested leaders invest in retention programs to

create a seamless process between the office of institutional effectiveness and the faculty,

counselors, and support staff. Institutional effectiveness officers could collect data to use

in managing the student retention program and train employees of various departments to

analyze data. Employee analysis of data would determine effectiveness of early warning systems and outreach programs (McClenny, 2013). As staff and faculty analyze data, they could refocus their efforts to meet the needs of the students.

Faculty retention efforts could include advising students through the first year of college and counselors could focus on retention efforts at the close of each registration period. Faculty led advisement sessions could ensure students are on track and focused on future goal attainment (Davidson, 2015). Throughout the year, faculty could collaborate with secondary educators and university leaders, lead learning focused classrooms, and integrate technology to enhance the student experience (McClenny, 2013).

Student blogging could provide an additional initiative to enhance retention rates. Duarte (2015) suggested faculty implement the usage of group blogging to enhance student experience and improve graduation rates. Student interaction in online forums may allow students to share thoughts and experiences and increase peer interaction. Instructors should encourage blogging beyond a single course and throughout the time at the university (Duarte, 2015). Blogging experiences may prove to be difficult to begin, but it is a free retention tool where participants discuss discipline related knowledge and degree promotion.

Faculty and staff efforts including data review, advising, and supporting peer interaction toward student success may not require financial support. Employees could use existing tools and knowledge to increase revenue from returning students. Leaders must implement new programs and encourage change in their institutions due to global competition, increased competition, and reduced budgets (Jenkins & Rodriguez, 2013;

Marshak, 2002; Rao, 2015).

Implications From Conceptual Framework

The decision to reduce funding for higher education institutions by state officials following the 2008 recession caused the environment of higher education to evolve and created a need for the administration to embrace and implement change (De Matos & Clegg, 2013; Duderstadt, 2012). The effects of the defunding of higher education has led to the need for sustainable business models (Afriyie, 2015; Armenti, 2012; D'Amico et al., 2014; Dougherty et al., 2013; Friedel & Thomas, 2013; Goldstein, 2012; McCauley, 2014; Mitchell et al., 2014; Oliff et al., 2013). Leaders must focus on new business models and how to implement institution-wide change (Afriyie, 2015; Aithal et al., 2015; Jenkins & Rodriguez, 2013; Lucas, 2014; Siegel, 2015). Marshak (2002) suggested continuous change has been on the forefront of higher education for many years; however, a new paradigm shift requires components of both continuous and episodic change. Leadership of some universities have continued to expand and ignore the changing environment in education (Castiglia & Smith-Knopik, 2013). Leadership choosing small adaptive changes will not remain competitive or sustainable (Castiglia & Smith-Knopik, 2013). Factors that could prohibit leadership from instituting system-wide change include organization complexity, resistance, and potential costs (Houmanfar et al., 2015). Regardless of the issues, change is on the horizon.

Loss of funding will not be resolved in the near future (D'Amico et al., 2014; Jones & Wellman, 2010; Kriger, 2012) requiring leaders to increase tuition, reduce budgets and resources available to operations, or identify new revenue streams

(Goldstein, 2012; D'Amico et al., 2012; Dougherty et al., 2013; Friedel & Thomas, 2013). Leadership must ensure that in the stage of decline, they restructure to avoid destruction (Rao, 2015). The change process includes identifying a need between the existing situation and preferred situation, examination of approaches in comparison to the mission, the current culture, and potential outcomes (Craig, 2004). A new paradigm shift in higher education institutions would include a radical initial change with continuous change to monitor the progress (Castiglia & Smith-Knopik, 2013; Jenkins & Rodriguez, 2013; Marshak, 2002).

During the implementation of new business models, leaders should examine implementation of new initiatives and continuously focus on additional changes over time. Efforts of episodic change include leaders' support of radical movements toward a new equilibrium with a dramatic impact through transactional leadership (Munduate & Bennebroek Gravenhorst, 2003). Of the various forms of leadership, transformational leadership characteristics are crucial to successful implementation of change as this style of leader is able to guide, motivate, and encourage employees throughout the process (Appelbaum, Degbe, MacDonald, & Nguyen-Quang, 2015; Otara, 2015). Leaders implementing episodic change efforts focus on incremental change, adjustment, and growth through transformational leadership, where continuous change allows leaders to adapt to changing surroundings and attract people to accepting change (Munduate & Bennebroek Gravenhorst, 2003). Leaders can overcome resistance to change through the presentation to their employees (Appelbaum et al., 2015) to include providing clear expectations, a connection to the mission and to the values of the organization, adequate

resources, and motivation (Houmanfar et al., 2015). The leader should be open to innovation and the paradigm shift in of higher education, aware of the needs of their faculty and staff, and create a framework conducive to their environment (Black, 2015).

The administration must foresee the potential areas of resistance and prepare to embrace all factors for successful transformational change (Craig, 2004). Initially, college administration must prepare for the faculty resistance to change based on the fear of reduced stability (Tagg, 2012). The process of change may be difficult to implement in an environment that has previously proven change resistant (Aithal et al., 2015). Appelbaum et al. (2015) suggested resistance to change might stem from physiological confusion in unmet needs or genuine concern for relevant threats to the organization. Changes leadership enact in higher education institutions in response to external forces resonates resistance due to threats to loss of comfort, control, and resources (Craig, 2004). When moving forward with a major change, leaders may choose from various resources for seamless implementation.

During implementation of episodic change, leaders can rely on various basis of power to include demonstration of the change process as an influence agent in the change process (Munduate & Bennebroek Gravenhorst, 2003). Leadership should ensure they effectively communicate the change to employees, foresee potential roadblocks, provide encouragement, disclose the purpose of enacting change, training, and designate personnel to implement and oversee the process (Appelbaum et al., 2015; Rao, 2015; Thomas & Lamm, 2012). Leaders play a crucial role in the success of implementing change and should know what motivates their employees (Rao, 2015). The change

needed in higher education institutions could require faculty and staff to do more with less including a reduced workforce, reduction in pay, or less funding for operations. Hahnel (2015) warned as leadership restricts resources, growth and expansion could be limited. Beyond potential barriers to growth, personal issues may surface.

During implementation, administration should monitor the potential benefit or negative outcomes from a reduction in staff, increase in adjunct faculty versus full-time, reduction in enrollments from tuition increases, budget reductions, and morale of the faculty and staff. Mintz-Binder and Calkins (2012) suggested bullying in the workplace might occur due to a reduction of operating budgets, staffing, resources, and increasing demands. Leadership is responsible for oversight of issues that develop as a result of the imposed changes.

After the implementation stage, resistance will reduce (Weick & Quinn, 1999). Leaders can identity individuals accepting of change to demonstrate the desired state (Munduate & Bennebroek Gravenhorst, 2003). As individuals adopt and accept the new process, they may assist in helping peers to embrace the changes. The responsibility of continuing the culture, motivation, and encouragement to continue operations starts at the top and connects through all levels of management (Newman, 2007). When business leaders create successful organizations, individuals succeed, and communities prosper (Jenkins & Belfied, 2014). To remain sustainable, leaders of higher education institutions should consider implementing strategic change efforts due to changes in the economy, funding, and competition (Craig, 2004). To respond to the changing demand, leadership

must refocus their efforts and create an environment that will attract the customers while reducing the operating costs of the institution (Schejbal, 2012).

The defunding of higher education is a new reality. In the previous 10 years, funding for colleges have reduced and the need for change on the horizon (Aithal et al., 2015). Duderstadt (2012) suggested that leadership realize change is inevitable and create opportunities out of threats to move into the future of education. There are potential for new funding streams through evolving practices, innovation, and organizational change (Mullin, 2014). Leadership should begin a paradigm shift to remain sustainable and adjust for the decade long dilemma.

Transition

Section 1 included an in-depth review of the issues community college leaders across America may experience. The defunding of higher education is a decade long business problem for managers in higher education. The lack of funding from government officials has shifted to the burden of the student, to the faculty and staff through reduced budgets, and to community members through tax increases. There is potential for exploring new funding streams through the explorations of evolving practices and innovation.

In Section 2, my focus shifted to the project details. This section includes the purpose of the study, my role and responsibilities as a researcher, the research method and design, and the reliability and validity of the study. The section concludes with a transition to Section 3, which contains reflections, applications, and implications for social change.

Section 2: The Project

Section 2 includes an in-depth review of my project. This section includes the purpose of the study, my role and responsibilities as a researcher, the research method and design, and the reliability and validity of the study. I present the detailed process I used to collect and analyze reliable and valid data.

Purpose Statement

The purpose of this qualitative multiple case study of community colleges was to explore funding strategies that community college business leaders use to support budget decisions that maintain organizational sustainability. Data sources included semistructured interview data from community college business leaders in Central Texas, and corresponding open source organization financial documents. The population is appropriate because researchers have suggested that the defunding of higher education has imposed the largest threat to community college business leaders trying to maintain organization sustainability (D'Amico et al., 2012; Friedel & Thomas, 2013; Goldstein, 2012; Mitchell et al., 2014; Oliff et al., 2013). In addition, this population was in a centralized geographic location conducive to conducting face-to-face interviews. As a result of this study the implications for positive social change include providing quality, affordable education to improve the lives of individuals, meeting the local workforce needs, and economic development within communities.

Role of the Researcher

The role of a researcher in a qualitative study is to explore and understand a phenomenon through personal interaction and effective listening (Parry et al., 2014; Yin,

2014). A researcher conducting a qualitative study is able to explore a situation through personal experiences of those directly connected to the phenomenon (Turner, 2010). I collected data through semistructured interviews with community college business leaders in Central Texas. The information gathered from the participants, along with documental reviews, provide insight into funding strategies conducive to sustainability.

I have worked for a community college for 9 years. The organization is not a traditional community college; it has 140 locations across the globe including the local communities in counties served as designated by state officials. My role began as a coordinator and advanced to a role equivalent of associate dean before becoming a full-time faculty member. I hope to continue advancing in the organization, making a difference in the community, and changing lives of our study body. It is important to keep the mission, bottom line, and future of the organization in mind in every decision. Innovative ideas are needed to sustain our global operations while considering the needs of the taxpayers, faculty and staff, and students.

Personal experience and business connections in the industry did not affect the selection of community college business leaders to interview. The individuals who I have personally worked with in the surrounding area are not senior leaders, but middle management. I have chosen the Central Texas region because of its close personal proximity and the variance in populations in the Waco, Temple, and Austin areas. A researcher should have a clear understanding of the purpose of their study (Cox, 2012), and I focused on the need for exploring sustainability models for community college leaders.

Officials from the Department of Health, Education, and Welfare produced The Belmont Report Protocol that explained the legal requirements for fair and ethical treatment of research participants (U.S. Department of Health and Human Services, 1979). Administrators included guidelines for researchers to use to respect individuals' own decisions, show beneficence toward participants, and provide just and equal treatment to all participants (U.S. Department of Health and Human Services, 1979). I abided by these recommendations and conducted ethical interviews with all participants. I followed a specific interview protocol with each potential participant (see Appendix A). My request for an interview and the opening of each interview began with appreciation of the individual's time and an overview of the purpose of the study. I then moved to asking the predetermined questions and recorded all discussions.

A researcher may conduct a multiple case study to gain insights from various perspectives (Yin, 2014). I conducted a multiple case study of three community colleges. I reviewed data gathered from participant interviews and document review to provide a variety of evidence and insure the quality of my research.

A protocol for each interview is useful to ensure that a standard process is used (Gatrell, 2009). Researchers should practice transparency in the interviews to ensure the participants are all informed and are provided equivalent information (Denzin & Lincoln, 2009). In order to remain transparent, I openly discussed aspects of the study with participants, including the purpose and selection method for participants. I requested to record each interview with Voice Recorder Plus iPhone application, along with note taking to record observations, ideas, and theories based on the interviewee's comments.

After the concluding interview question, I let the participant know that I would send a summary of my interpretation of the interview for their review and request either their approval or suggestions for changes. To conclude the interview, I expressed my appreciation to the participant for their time, knowledge, and insights.

A researcher may form opinions and conclusions from data-driven themes (Yilmaz, 2013). As part of a standardized practice, as I collected data, I organized it by themes that emerged from the research instead of waiting until I had completed all interviews. Researchers use data triangulation to explore data and ensure credibility (Houghton, Casey, Shaw, & Murphy, 2013). During this process, I triangulated the data obtained from interviews and document review to determine credible sustainable business practices for community college leaders.

Participants

The individuals whom I contacted for interviews were from the senior leadership team of community colleges in Central Texas. Senior leaders make decisions at the organization and are responsible for the success or failure of all ventures. I sought participants in the position of chancellor, vice chancellor, deputy chancellor, president, and vice president.

I used a sample of business leaders from community colleges in Central Texas communities with stakeholders who have a variety of economic statuses and educational backgrounds. The Texas Higher Education Coordinating Board service area designations in Central Texas served as a list for potential interview participants. I sent potential community college business leader participants an e-mail requesting their participation in

a research study on sustainability models for community college leaders (see Appendix B). I preferred to conduct face-to-face interviews, but reserved a Skype interview as an acceptable alternative option if the participant was unable to meet in person (Gatrell, 2009). Included in the request for an interview should be a rationale for the research in efforts to ensure quality and realizable data from committed participants (Turner, 2010). I included a rationale that explained the importance of the research to each contributor and the future of their community college. I conducted follow-up emails with potential participants to assist in securing their time for an interview.

As each interview began, I introduced the study to initiate the conversation. I provided details about the purpose of the study and how I would conduct the interview. Immediately following the introduction, I began asking the predetermined questions to further extend the conversation and allow for elaboration of each statement. The interview closed with my thanks for the participant's time and insight into problem.

Research Method and Design

A researcher using the qualitative method and case study design can explore a phenomenon through human interaction (Lauckner, Paterson, & Krupa, 2012; Yilmaz, 2013). The research method I used for this qualitative multiple case study allowed me to explore funding strategies that community college business leaders use to support budget decisions that maintain organizational sustainability. I conducted a multiple case study by interviewing participants and reviewing documents at three community colleges in Central Texas.

Research Method

The defunding of higher education is an issue that has been discussed by various constituents for many years (D'Amico et al., 2012; Dougherty et al., 2013; Friedel & Thomas, 2013; Goldstein, 2012); however, it is still a relatively new business problem and has not been conducive to conducting many previous mixed method studies. In order to make a determination of the appropriate research method, I conducted a review of each method and the corresponding designs to determine the most applicable method. Each method provides a different perspective and data type in response to the purpose of the research. Assorted views and various facets of data for an all-encompassing view could be gathered from a mixed method study (Sandelowski, 2014). While this method does provide evaluative results from the human perspective and numerical measure (O'Cathain et al., 2014), only a small percentage of researchers conduct studies of this magnitude because of the extensive nature of the study.

The quantitative method is the most predominant method used by researchers conducting studies published in higher education journals (Wells, Kolek, Williams, & Saunders. 2015). Quantitative researchers have studied higher education administrators' reactions to the loss of funding (D'Amico et al., 2012; Dougherty et al., 2013; Friedel & Thomas, 2013; Goldstein, 2012). The external view that quantitative researchers have provided has been beneficial for identifying the problem (Parry et al., 2014), but a researcher conducting an internal study could explore the dilemma further.

Various theories have been proposed and studies have been conducted regarding the actual problem to prove it exists (D'Amico et al., 2012; Dougherty et al., 2013;

Friedel & Thomas, 2013; Goldstein, 2012). From 2010 to 2015, the research trend was in line with discussions on the effects of budget reductions and potential solutions to the growing problem. However, previous research has been limited in the use of qualitative methods to understand the meaning behind decisions, and has thus shown the need for further study (Siegel, 2015).

A researcher conducting a qualitative study is able to explore an ambiguous phenomenon (Lauckner et al., 2012). Through exploration, I studied a business problem, that if resolved, could present a benefit to communities. The flexible nature of a qualitative study allows researchers to make adaptations if needed during the study (Houghton et al., 2013; Hyett, Kenny, & Dickson-Swift, 2014; Parry et al., 2014). A researcher who conducts a qualitative study is able to gain a human perspective into a phenomenon (Darawsheh, 2014). I determined that the qualitative research method was the appropriate method for this study because it allowed for personal insights and potential adaptations to the structure of the interviews (Houghton et al., 2013; Hyett et al., 2014; Parry et al., 2014). Through exploration of human experiences and knowledge, I investigated potential sustainability models that were appropriate for community college leaders.

Research Design

Qualitative researchers use the natural setting of the phenomenon to explore the real world experiences of individuals (Yilmaz, 2013). I considered using several qualitative designs including phenomenology, ethnography, observation, and case study. A phenomenological study is useful to explore a lived experience through interaction,

observation, and the view of the participant (Pietkiewicz & Smith, 2014). A phenomenological study was not appropriate for this study because potential participants likely could not have met beyond a single 90-minute window for an interview. A researcher conducting an ethnographic study focuses on the cultural aspect of the phenomenon within communities (Pietkiewicz & Smith, 2014). This design was not appropriate for this study on sustainability models because my aim was to explore a new business model for an industry, not to understand the culture of a small community or organization. A researcher conducting observations is able to gain insights from human behavior in the lived phenomenon (Koskei & Simiyu, 2015). An observation may have been beneficial, but was not possible because of minimal potential for approval from community college business leaders.

I decided that the most appropriate design for exploring sustainability models was a case study. A researcher conducting a case study may engage those closest to a specific problem through a personal connection and exploration behind actions (Parry et al., 2014; Yin, 2014). Researchers using a case study design can conduct a comprehensive study using multiple tools to assess various perspectives during data retrieval (Houghton et al., 2013; Lauckner et al., 2012; Turner, 2010). For instance, a researcher conducting interviews with senior level managers may gain a historical perspective on why decisions are made (Lauckner et al., 2012; Parker, 2014).

I gained historical information from individuals most closely connected to the problem. In an interview setting, participants may provide a more comprehensive response than in other data collection methods (Gatrell, 2009). I conducted

semistructured interviews and asked open-ended questions to permit senior officials to provide detailed information to assist in development of the research. A researcher should continue the research until the data becomes repetitive (Orobia, Byabashaija, Munene, Sejjaaka, & Musinguzi, 2013). I concluded the interview process when I met data saturation and the information gained was repetitive in nature. After three interviews, there were repetitive responses to the interview questions indicating data saturation.

The research I conducted may provide community college leaders with a tool to use for managing loss of funding and provide potential solutions to the problem. A case study is the appropriate method. I gained insight from individuals in the field with firsthand knowledge of multiple aspects of the problem. The document review provided further insight into decisions and application of the business models. The data I collected provided information to connect various theories and relevant information.

Population and Sampling

The defunding of higher education by state officials across the country has had a prevailing effect on community college business leaders. The loss of funding is equivalent to universities; however, the increase in enrollments at community colleges has left an even greater deficit in the funding loss per student than anticipated (D'Amico et al., 2012; Jenkins & Rodriguez, 2013). Community colleges are scattered throughout the United States; however, I focused specifically on the Central Texas region for this study using a purposive, nonprobabilistic sample.

The selection of the participants in a qualitative case study is an important element to the validity of the study (Robinson, 2014). The selected sample from a

population included the criteria that individuals are business leaders at the community

college. Stratification is useful when a researcher hopes to gain information from various

sources by specific categories (Robinson, 2014). I used a stratified sample to gain

information from various demographics. Citizens from Central Texas communities have

a variety of economic status and education backgrounds. The leadership of each

institution must consider the needs of all stakeholders (Christofi et al., 2012; Kettunen,

2015, Romano, 2012). The demographics of the community may affect the decisions of

the collegiate leadership team. The community colleges in the Central Texas region are

located in a mixture of large and small cities as well as rural areas.

Participants included community college business leaders with the title of

chancellor, president, or vice president. Prior to the study, a researcher should have a

tentative number of participants or range in mind (Robinson, 2014). I met data saturation

with three interviews, comprised of two participants from each of three separate

community colleges. The actual required number of participants was determined upon

data saturation (Orobia et al., 2013).

It is important for participants to feel comfortable in the environment of the

interview location (Turner, 2010). Each participant selected the location and time of the

interviewing setting. Concluding each interview, I reviewed the transcripts and

determined themes in the data. A researcher may determine themes through a thorough

review of the interview transcripts (Houghton et al., 2013). I concluded the interview

process once participant suggested sustainability practices became repetitive. After

completion of the interviews, I began the document review process for each college to

include the website, board meeting minutes, and higher education journals.

Ethical Research

I contacted potential participants with an initial e-mail request and a follow-up phone call prior to the beginning of the study to provide information on the purpose of the study. In addition to the request for an interview, potential participants received a consent form in which I explained the ability to withdraw from the study at any point in time, the confidentiality of the interview, and the interview procedures (see Appendices B and C). Individuals whom I contacted for an interview were over the age of 18. Any individual who participated in the study did not receive monetary compensation.

A researcher conducting an interview should ensure all participants understand the purpose of the study and their role as a participant (Koskei & Simiyu, 2015). As individuals agreed to participate, I set-up appointments convenient to their schedules. A researcher should ensure deletion of the participant's identity and any reference of their place of business from the study (Yin, 2014). During the interview, I used pseudonyms for each participant. Preceding the interview, I collected the signed consent form, reminded the participants I would not use their name and college name in the study, I would be recording the interview, and they could withdraw from the interview at any point.

Upon completion and publication of the study, I sent each of the participants a summary of findings in appreciation of their contribution. Researchers should protect the privacy of subjects of the study in their research (Beskow, Check, & Ammarell, 2014) and follow a protocol for storing data for each participant (Check, Wolf, Dame, &

Beskow, 2014). To ensure the protection of the identity of the participants and the college they serve, I will protect all data to include written documents and a password protected flash drive with audio and Word files in a locked box for 5 years. I will be the only person that has access to the storage. Upon conclusion of the 5 years, I will personally destroy all data. I will erase the flash drive and shred the written notes.

Beyond removing names from the study, researchers must also be cognizant of how they write the results to avoid giving clues to the identity of the individuals or their organization (Koskei & Simiyu, 2015). It is important to remove the identity of the participants from the study (Beskow et al., 2014; Yin, 2014). When presenting the findings, I used pseudonyms for each participant and location. I did not discuss specific details by service area or cities because the specifics may not provide the identity of participants, but may enable the audience to determine the institution of the participant.

Data Collection Instruments

A researcher selecting a qualitative study becomes the data collection instrument and is able to gain vivid data from various participant views (Yilmaz, 2013). I became the primary data collection instrument by conducting interviews and reviewing company documents to include the college website, and board meeting minutes, and potential other documents useful for demonstration budgetary and operating requirements for the previous 2-year period. Community colleges documents are open access to any stakeholder since community colleges are public institutions. The interview process is a tool a researcher can use to gain personal insights into the phenomenon from a behavioral setting (Eisenhardt & Graebner, 2007; Koskei & Simiyu, 2015; Yin, 2014). Through the

interview process, I collected data from senior business leaders regarding business models for sustainability.

A qualitative researcher can collect data using a variety of tools to include interviews, observation, document review, e-mails, phone calls, focus groups, and recorded conversations (Koskei & Simiyu, 2015; Yilmaz, 2013). A researcher must carefully choose the data collection instrument for reliability and validity of the study (Yilmaz, 2013). Based on the purpose statement, research question, and review of academic literature, I collected data using semistructured interviews and company document review. The document review included an examination of the college website and board meeting minutes for the previous 2-year period.

I conducted interviews with senior leaders of community colleges and reviewed organizational documents to explore funding strategies community college business leaders may use to support budget decisions that maintain organizational sustainability. I selected the interview tool to allow for communication of the issues by various leaders in the community college setting, to explore how they make decisions, and provide a historical aspect from prior successful business models. I conducted document reviews to provide additional insight into the personal interaction. Documents included college website and board meeting minutes, and other documents determined useful for demonstration of budgetary requirements for the 2013-2014 and 2014-2015 academic years.

A semistructured interview is a useful approach for a researcher when interviewing multiple people. A researcher using this tactic has the freedom to modify

questions or ask follow-up questions based on the individual participant responses (Koskei & Simiyu, 2015). I selected this approach to ask probing questions if a response has further meaning than what the participant originally provided for a deeper meaning to the conversation. I created a list of questions I used in the interview process to collect raw data (see Appendix E). The questions I selected helped structure the interview and begin dialogue. Researchers using open-ended questions in semistructured interviews enable the participant to provide an explanation in their own words of the occurrence (Yilmaz, 2013). Open-ended interviews with the administrators of community colleges in Central Texas and document review allowed for an in-depth review of a growing problem and potential solutions. Administrators of community colleges not only in Texas, but throughout the nation may benefit from the reflection and recommendation for actions developed from the findings of the study. The problem exists and relief does not appear to be on the agenda from state government officials. I had the ability to make modifications to the questions if the participant asks for clarification, or if I sensed a need to extend the conversation based on participant response (Koskei & Simiyu, 2015).

To ensure accuracy of the interview, a researcher should allow the participant to review a transcript of the interview or member check for accurate meaning (Houghton et al., 2013). I recorded the interview with Voice Recorder Plus iPhone application and transcribed the data into a Microsoft Word document. Within 1 week, I reviewed the transcript and provided the participant a summary of the interview. Researchers should member check to ensure reliability and validity of the study (Fusch & Ness, 2015; Houghton et al., 2013; Sinkovics & Alfoldi, 2012). I member checked by providing each

participant an overview of the interpretation of the interview to ensure I understood the intended message of each participant.

A researcher conducting a qualitative study should include multiple data sources for reliability of the study (Houghton et al., 2013; Turner, 2010). Following the interviews, I reviewed organizational documents for each institution. A researcher conducting document review may find related information that can bridge gaps and provide further detail (Lauckner et al., 2012; Watkins, 2012). The document review includes a thorough review of the college website to learn of potential changes within the organization. The next step included a review of the board meeting minutes for the 2013-2014 and 2014-2015 academic years. If the meeting minutes were not available on the website, I requested copies from the board secretary. During the review, I followed up with any documents referenced in the minutes. The exploration included changes to the business models, budgetary information, programs, and campus operations. I took notes on all documents and included preliminary codes in the margins of the documents to compare the findings with the data compiled from the interviews.

To assist in the organization process, a researcher may collect and store data together from each case (Lauckner et al., 2012). I collected data from the college website and board meeting minutes for the 2013-2014 and 2014-2015 academic years.

Prior to making notes, a scholar should consider reviewing the material multiple times to become acquainted with the data (Watkins, 2012). I read through the retrieved documents and become familiar with the content prior to making notes and noting themes.

Data Collection Technique

A researcher can gain personal perceptions and a deep meaning of a situation by conducting interviews (Turner, 2010). I used semistructured interviews as the primary data collection instrument. I identified an interview structure that avoided potential bias and applied structure to each interview conducted. The interviewer must be able to set aside all bias, inform the participations about the expectations, and provide a clear idea of the purpose of the interview (Koskei & Simiyu, 2015). I continued the process with a discussion on the purpose of the study in a structured format based on the research conducted. During the interview, I asked a series of six questions (see Appendix E).

An advantage to the interview tool is the ability of a researcher to explore a phenomenon through the interpretation of the participant (Turner, 2010). During the interview process, a researcher may gather insights from leaders on the strengths and weaknesses of business decisions and the historical lessons learned (Parker, 2014). The advantages are useful for a researcher to understand the personal meaning behind decisions and actions of the individual.

Potential drawbacks to the interview design include various personalities of participants, the inability of the leaders to communicative effectively, and lack of experience from the researcher (Koskei & Simiyu, 2015). To overcome the potential issues, I remained focused and kept each contributor on topic when responding to the interview questions. As the need arose to ask additional questions for further insight into a specific topic, I avoided personal bias of the subject and stayed focused on the perspective of the participant.

To explore a phenomenon, researchers may use standardized questions that require detailed responses (Turner, 2010). I used a standard process with each participant to gain insights from their own experience using a consistent opening dialog to introduce the study, a reminder of the confidentially of the interview, and use a list of predetermined questions (see Appendix E). Researchers using open-ended questions in a semistructured interview enable the participants to provide detailed responses (Yilmaz, 2013). I used semistructured interviews to enable further discussion on topics participants introduced and reserved the ability to modify a question for clarity based on the participant's reaction.

I recorded the interviews using Voice Recorder Plus iPhone application and took notes on important points participants discuss. Taking notes provided backup documentation in case the technology had failed. A researcher may use notes in conjunction with the interview transcripts to later code the data in themes (Houghton et al., 2013). It is important for a researcher to offer the participants a chance to review the transcript of the interview, along with the researcher's interpretation of the interview for accuracy and validity (Houghton et al., 2013; Sinkovics & Alfoldi, 2012).

At the conclusion of each interview, I uploaded the voice recording to a Microsoft Word document for review and analysis. Within 1 week, I member checked by providing the participants my interpretation and summary of the gathered data. The summary included a concise overview of the information provided by each participant. I requested written documentation of either their approval of the information gathered, or their requested changes to correct any errors.

When conducting case study research, a researcher should select more than one tool to compose an all-encompassing study (Turner, 2010). The use of multiple tools enables the researcher to validate the findings through methodological triangulation (Denzin, 2012; Yilmaz, 2013). Concluding each interview, I began researching documents that pertained to each community college. Documents included information gathered on the college website, board meeting minutes, and other documents determined useful for demonstration of budgetary requirements for the 2013-2014 and 2014-2015 academic years. Document review may be useful to a researcher for related information to fill in gaps or support another data source (Lauckner et al., 2012). I gained historical and current data from the college website and board meeting minutes for the 2013-2014 and 2014-2015 academic years through written documentation on changes made to increase the potential for a sustainable future. Through additional sources, I enhanced the study and information gained through the interview process and triangulated the recorded data.

Data Organization Technique

The study involved the use of data gained from interviews and documents based on the business problem, purpose statement, and research question. I began the data collection with conducting interviews and taking field notes, and then moved to document review. Throughout the process, I kept field notes to keep track of emerging understanding and potential themes. A qualitative researcher should consider choosing a software program for data transcription and an appropriate alternative software program as a tool to evaluate data (Meyer & Avery, 2009). Throughout the data collection process,

I collected and transcribe data in Microsoft Word documents and imported to Microsoft Excel for organization, tracking, and coding purposes. A researcher using Excel is able to manipulate the format of each document to produce a design conducive to research requirements (Kupzyk & Cohen, 2015).

As I conducted interviews, I immediately transcribed them into a Microsoft Word document for review. A researcher may use a variety of specialized data collection software programs to organize and a separate program to analyze data (Stockdale, 2002). Excel is an affordable, user-friendly alternative to expensive programs for coding (Stockdale, 2002; Watkins, 2012). I loaded each transcript into Excel for coding. A researcher creates themes, or codes, to discover the meaning within the research (Ryan & Bernard, 2003). Following each interview, I loaded the transcript and began to code the retrieved data. I created themes by identifying single words or phrases. I then created codes to correlate the data to the themes found in the literature and conceptual framework. The final code was a code based on color relevancy. As I conducted document reviews, I followed a similar pattern and identified themes found on the website, in board documents, and in higher education journals, and included all findings in the Excel tracking document. Throughout the data collection process, I took notes, wrote summaries, and worked to identify emerging themes.

Per the data collection requirements of Walden University, I will safeguard all data during data collection and for 5 years after completion of the study. A researcher should conduct an ethical study (Check et al., 2014), which includes protecting the identity of participants (Yin, 2014). Bestow et al. (2014) suggested a researcher create a

procedure for participant confidentiality. I will save electronic documents in a password-protected file and will keep hard copies in a locked box. After the 5-year period, I will personally destroy the data by shredding or electronic erasure.

Data Analysis

A researcher may triangulate data through the use of multiple data sources (Onwuegbuzie, Leech, & Collins, 2012; Yin, 2013). The data I collected includes observed data through the interviews and document review. A researcher using numerous data collection tools can validate their findings through triangulation (Denzin, 2012; Yilmaz, 2013) relying on identification of repetitive key terms to validate their study (Wijnhoven & Brinkhuis, 2015). I used methodological triangulation to validate my findings (Denzin, 2012; Yilmaz, 2013; Yin, 2013).

A qualitative researcher will gather and analyze data simultaneously (Vaismoradi, Turunen, & Bondas, 2013). Data analysis began immediately with the start of the initial interview and endured throughout the extent of the study. I concurrently processed reflection and data collection with unbiased interpretation and reflection written on a continual basis. During data analysis, researchers must refrain from including opinions and conclusions and data driven themes (Yilmaz, 2013). To avoid bias, as I conducted interviews, I began developing and studying themes from the information presented to avoid personal assumptions prior to completion of the research.

As the data analysis process begins, a qualitative researcher must transcribe and review each interview (Vaismoradi et al., 2013). I recorded the interview using Voice Recorder Plus iPhone application and transcribed the data into Microsoft Word. A

researcher should double-check the transcripts against the recording to verify accuracy and identify errors (Stockdale, 2002). A researcher should review all data several times through to become familiar with the content and meaning prior to assigning codes (Watkins, 2012). Once I conducted each interview, a thorough review of all transcripts and notes began to gain an overall understanding of the information gathered. A researcher can use member checking to triangulate data and ensure credibility (Jonsen & Jehn, 2009). I wrote up my understanding of the general ideas from the interviews and member checked with each participant to ensure accuracy. The analysis included a concise overview of the information provided by each participant. I requested written documentation from each participant of either their approval of the information gathered or suggested changes.

A researcher may identify the structure, relevance, and themes in the data based on the connection to answering the research question (Ryan & Bernard, 2003). Concluding the interviews and document review, I established a coding structure based on the evaluation of literature from Section 1, the research question, and conceptual framework. I created a Microsoft Excel document and compiled findings from various data sources to categorize the best practices used by community college business leaders. As a researcher prepares transcripts for transfer to Excel, a researcher should use a hard return, instead of allowing the words to wrap around the page, to separate comments for ease of transfer into separate cells (Stockdale, 2002). I ensured interview transcripts, observation notes, and data from the document review were in a format conducive to transferring into Excel.

A researcher is able to use analytical coding to evaluate data through computation functions (Meyer & Avery, 2009). I coded the interview transcripts and document review notes by categories the audience will be able to identify with by previous studies and included some that are unforeseen. I accomplished preliminary coding through printing the Microsoft Word documents of the transcripts, field notes, and company documents and placed codes in the margins as I identified themes in the data. The design was a multiple step process that illustrated the data through themes. Researchers using semistructured interviews may rely on the natural transition between the interview questions to aide in the identification of themes (Ryan & Bernard, 2003). I aligned the codes with the research and interview questions developed from the literature review as a guide to identifying themes in the data.

During the coding process, a researcher may use color and written codes to identify common ideas and repetitive information (Ryan & Bernard, 2003). The number of themes may vary among researchers, their study, and the repetition within the data. A researcher should develop codes to describe participant responses (Stockdale, 2002). I reviewed each comment from the interviews, field notes, and document review notes, and developed a phrase or single word to describe the response. Each phrase had a separate theme number. I then created codes to correlate the data to the themes found in the literature and conceptual framework. Primary source group type included LR for literature review, NL for new literature found after the completion of the literature review, and CF for conceptual framework. The final code was a code based on color, green for relevant, yellow for unsure, and red for not relevant.

After a researcher identifies all themes, the researcher should create a new sheet in the document to define the meaning of each theme (Stockdale, 2002). During this process, a researcher may choose to combine those of similar nature (Stockdale, 2002; Watkins, 2012). The categories I created, presented the ideas gathered from the study and eventually aided in a presentation of findings to express the implications and theories from the data.

A researcher begins the process of computing the results through the use of a computer program or manual techniques of sorting their categories to count the reoccurrences after the data is coded (Ryan & Bernard, 2003). Software packages are useful for researchers conducting a large number of interviews and for large research teams (Hwang, 2008). An often-overlooked software program for data analysis is Excel (Meyer & Avery, 2009). Excel is a simple economical software program with complex, customizable, and effective functions (Kupzyk & Cohen, 2015). I used the formula commands to tabulate the reoccurrences of the themes to produce a third Excel sheet. I included the category, keyword, and number of occurrence. A researcher may use repetition of key words to systematically triangulate data (Wijnhoven & Brinkhuis, 2015). The categories I created allowed for a discussion of potential solutions to sustainability models for community college leaders and potential suggestions for future research.

Throughout the interview and document retrieval process, I continued exploring new studies from researchers that focused on discovering funding strategies community college business leaders use to support budget decisions that maintain organizational

sustainability. Each week, I received Google Scholar notifications based on the initial

search parameters. I reviewed the identified documents for innovative ideas for funding

community colleges and compared and contrast with my research findings under Section

3.

Reliability and Validity

A researcher conducting a qualitative study must ensure reliability and validity.

The process of meeting both includes addressing dependability, creditability,

transferability, confirmability, and data saturation. A researcher may use triangulation

(Johsen & Jehn, 2009), in addition to member checking to ensure data saturation,

reliability, and validity (Fusch & Ness, 2015). In the paragraphs that follow, I discuss the

process I followed to address each of the components of reliability and validity.

Reliability

A researcher should ensure dependability and credibility of the data collected

(Yilmaz, 2013). I ensured the dependability of my research through member checking.

Member checking is useful to ensure the interpretation of the data and the intent aligns

(Houghton et al., 2013). I conducted member checking to allow the participants to review

the written interpretation of the data gained during the interview. After each interview, I

e-mailed the participants my interpretation of the information gathered and requested

written documentation of either their approval or suggested changes. I used member

checking to ensure I reported dependable data.

A researcher may use coding to label findings and ensure reliable data

(Vaismoradi et al., 2013). I coded the interview transcripts, field notes, and document

review against the literature and conceptual framework. I also included a code to provide

an overview to the idea and color coded it for relevancy. I accurately presented the finds

of the research I conducted through a logical and sequential data analysis process. I used

methodological triangulation through the use of multiple data sources. Triangulation

ensures reliability and validity (Johsen & Jehn, 2009).

Validity

Validity is about the truth and accuracy of findings (Watkins, 2012). I included a

variety of data sources to present creditability in my study based on a thorough literature

review, interviews from community college business leaders, field notes, and document

review. Of the four types of triangulation, methodological triangulation is one of two

types researchers may use in a case study to enhance validity (Yin, 2013). A researcher

may use multiple tools to validate findings through methodological triangulation (Denzin,

2012; Yilmaz, 2013). I conducted a creditable study through the use semistructured

interviews and company document review tools to collect and analyze data. A researcher

using more than one tool may present an all-encompassing study (Turner, 2010).

A researcher can conduct a trustworthy study through consistency in data

collection (Yilmaz, 2013). I ensured the data I collected is reliable through the use of a

repetitive process for the interviews and document reviews. I asked the same questions in

each interview, I took notes on observations and key terms, and I recorded each

interview. During the document review process, I reviewed similar documents to include

websites and board meeting minutes. A researcher double-checking all manual entries

and random sample checks against the data source may avoid data entry errors (Kupzyk

& Cohen, 2015). After I transcribed the data, I reviewed it against the audio recording to ensure creditability. If I located errors, I corrected the transcripts.

A researcher may achieve transferability when they are able to provide consistent, replicable results with various data to produce a reliable study (Watkin, 2012; Yilmaz, 2013). My study may be transferable to the audience for future research. The loss of funding of higher education is a new reality. Community college business leaders may lack funding strategies that would support implementing budget decisions to maintain organizational sustainability. The results of the study may be transferable and applicable to community college leaders across the United States and future researchers looking to explore sustainable practices

During a study, a researcher should take proper steps in data analysis to ensure confirmability of their study (Yilmaz, 2014). I included a detailed account of the data collection instruments and techniques, along with the data organization I used to confirm the results of my study. The steps I have outlined included member checking to ensure the data gathered was reliable and valid.

I have logically considered a population where I explored the various challenges and potential resolutions to implementing budget decisions to maintain organizational sustainability. A researcher may narrow the scope to include a smaller population that includes qualified participants (Fusch & Ness, 2015). I interviewed business leaders of community colleges in the Central Texas region. The population, landscape, and economic development of the service areas provides leaders a variety of elements to consider for sustainability models based on the financial constraints of their stakeholders.

A researcher should repeat the process until the data becomes repetitive (Orobia et al., 2013). I continued the described procedure until I met data saturation. Another researcher could follow the same steps and replicate the results confirming the study. A researcher may achieve data saturation through member checking by asking the participant to add any missing information that may be useful to the study (Fusch & Ness, 2015). Saturation is evident upon repetitive data retrieval during the interview process (Houghton et al., 2013). I based the number of interviews conducted upon data saturation.

A researcher my achieve data saturation when they no longer collect new data (Fusch & Ness, 2015). I continued to conduct interviews, reviewed literature, and conducted document reviews of the chosen colleges in the chosen area until I achieved data saturation. A researcher may obtain validity in their study through the process of conducting research until they no longer gather new data and the research could be repeated (Fusch & Ness, 2015). Once the information I retrieved was repetitive, when I met data saturation, I began reviewing all documents and coded the data.

To ensure validation, a researcher should clearly explain their coding process (Ryan & Bernard, 2003). The coding process included a multiple step process to include selecting a theme for each entry, connections to the literature and conceptual framework, and color coding by importance. A researcher can validate data through the various functions to tabulate results and restricting the data entry to only accepting specific responses (Kupzyk & Cohen, 2015). I used Excel functions to tabulate the reoccurrence of themes and categorize the findings.

A researcher may ensure validity through explanation of their findings (Jonsen &

Jehn, 2009). The presentation of findings I included provides a thorough explanation to

the phenomenon and demonstrates my understating of the subject. I presented the

findings in a transferable format useful to community college business leaders and future

researchers looking to explore sustainability models.

Transition and Summary

Section 2 included an in-depth review of project details. This section included the

purpose of the study, my role and responsibilities as a researcher, the research method

and design, and the reliability and validity of the study. I presented the detailed process I

used to collect and analyze reliable and valid data.

In Section 3, I shifted the focus to the research and findings. I conducted a

multiple case study of three community colleges using interview and document retrieval

tools. In addition to methodological triangulation, I used and member checking to

enhance the reliability and validity of the study. This section includes reflection, an

application to the profession, implications for social change, and recommendations for

future research.

Section 3: Application to Professional Practice and Implications for Change

Introduction

The purpose of this qualitative multiple case study was to explore funding strategies that community college business leaders use to support budget decisions that maintain organizational sustainability. Through interviews and document reviews, I collected data on three community colleges in Central Texas that may assist in determining funding strategies for community colleges business leaders throughout the state and nation. The data I collected from the participants and historical documents revealed strategies to respond to the paradigm shift in higher education financing. As a result of the defunding of higher education at the state level, community college business leaders have shifted to a business focus to operational planning and increased focus on student success.

Presentation of the Findings

The research question for this study was: What funding strategies do community college business leaders use to support budget decisions that maintain organizational sustainability? Data sources included semistructured interviews from community college business leaders and corresponding open source organization financial documents from three community colleges in Central Texas. Participants included community college business leaders in the positions of chancellor, president, or vice president who have fiscal responsibilities. Using the interview protocol (Appendix A), I met data saturation after four interviews which included two participants from the first institution and one from each of the other community colleges.

All of the participants have worked for community colleges in Texas for decades, and were armed with the historical knowledge of the defunding of higher education, and the strategies that have improved the bottom line within their institutions. Marshak (2002) suggested, and the participants agreed, that community college business leaders face a paradigm shift in planning requiring components of both continuous and episodic change. Community college business leaders are working with a reduction in funding from U.S. and state government administrators and required increased success initiatives (Lloyd, 2016). The participants agreed with the research and noted the need for organizational change through creating a plan of sustainability and a shift in the business model (Afriyie, 2015; Aithal et al., 2015; Jenkins & Rodriguez, 2013; Lucas, 2014; Siegel, 2015). In efforts to adjust to the reduction in funding from the state administrators, community college business leaders should focus on a business orientation for the budget while maintaining a focus on student success and retention (Price, Schneider, & Quick, 2015). The participants focused on the need for community college business leaders to balance the needs of the staff, faculty, community, and students through the paradigm shift in the higher education funding landscape (Black, 2015; Castiglia & Smith-Knopik, 2013; Marshak, 2002; Pucciarelli & Kaplan, 2016). As Table 1 shows, the participants' responses correlated with the research and the data collected included support of two main themes: business focused planning and student success.

Table 1

Frequency of Primary Themes From Data Collected From Semistructured Interviews

Theme	*n*	% of frequency of occurrence
Business focus	43	63.59%
Student success	38	25.76%

Emergent Theme 1: Business Focus

State government administrators have cut spending an average of 26% per student in public higher education institutions (Barr & Turner, 2013; Hillman, 2012). Community college business leaders are in the most difficult financial predicament with increased enrollments as a result of university tuition increases, but with an equivalent reduction in allotted funding (D'Amico et al., 2012; Jenkins & Rodriguez, 2013). The participants noted not only the decrease in funding, but also the increase in unfunded mandates such as campus carry, free tuition for various student populations, and increased competition for dual credit enrollments. O'Connor and Gray (2016) suggested that community college business leaders incorporate sustainable measures into their strategic plan and throughout campus operations for ownership and acceptance by all stakeholders.

The data I collected from the participants and historical documents support the need for organizational change by refocusing operations through strategic planning with a shift in thinking toward a business mindset, beginning with resource allocation. As leaders realize change is part of progression and sustainability, continuous change efforts will be a part of the culture (Newman, 2007). Hu and Bowman (2016) and Pucciarelli and Kaplan (2016) suggested that leadership incorporate appropriate management of

resources and a business focus to budgetary planning. The participants suggested that resources allocation and management should be data driven and include academic and workforce education program review, position reviews, and a contingency plan.

The participants discussed the organizational change review processes following the 2008 recession in each of their institutions. Leadership started with the budgetary needs and components of all departments on campus (academic and operations), and determined the areas to reorganize. The new structure of business focused institutions that emerged and is supported by research included a data driven and supported action plan (Hu & Bowman, 2016; Wilson & Bower, 2016). In moving forward, community college business leaders should make decisions tied to the strategic plan, mission, and sustainability of the bottom line. The findings were in line with the research noting that continuous change efforts based on a business mindset allow for improvements across campus, innovation, and operational improvements (Bowen-Ellzey et al., 2013; Pucciarelli & Kaplan, 2016). A stringent review process may include a review of the extent to which decisions are good for the community, the college, and the ability to produce funding to keep the college operational.

Program review. The typical community college student enrolls for academic preparation, to learn a skill, or as a transfer student, all characteristics that restrict the amount of performance funding state governmental leaders award (Belfield et al., 2014; Dougherty et al., 2014). In efforts to increase completion rates, community college business leaders may chose to focus on programs that tie to the needs of the local community and workforce (Price et al., 2015). Participants suggested that looking to the

needs of the workforce directly affects the enrollments in the programs. Pucciarelli and

Kaplan (2016) suggested that, through program review, market share may increase

because of a correlation to industry needs. In addition, the findings were in line with the

literature encouraging completion of program reviews based on revenue through

enrollments, class size, instructor pay level, and operating expenses (Bers & Head, 2014;

Erickson, 2012; Jones & Wellman, 2010; Mitchell et al., 2014). Leadership may use the

data to alter required minimum enrollments per class, combine programs, restructure

class offering schedules, and discontinue programs.

   Position review. Researchers indicated higher education business leaders are

moving away from full-time, tenured professors and replacing them with adjunct faculty

(Baack, Jordan, & Baack, 2016; June, 2012; Ott & Cisneros, 2015). June (2012)

suggested, and the participants agreed, the number of full-time professors has been

declining since 2002. The move to an increase in adjunct faculty includes a reduction in

expenses per course and reduced compensation and benefits (Baack et al., 2016; June,

2012).

   The participants noted the trend among higher education institutions, but

discussed the benefit of investing in their faculty. The participants agree with research

noting the need for organizational change, while balancing the needs of their stakeholders

(Black, 2015; Castiglia & Smith-Knopik, 2013; Marshak, 2002). The reduced cost to the

current budget may come at a higher price. An increase in adjuncts equates to a decrease

in cost, but also a potential decrease in student success. Adjuncts are often not required to

hold office hours, be involved in the community or campus, or mentor students (Hollis,

2015; June, 2012). The community college business leaders who participated in the study

support their faculty and have a commitment to the continued funding of full-time

faculty. The leaders instead have chosen to review the human capital throughout the

institution, investing in current employees, restructuring and organizing responsibilities,

and reviewing positions as they become available.

The participants each noted the importance of supporting members of the faculty

and staff during the reorganization process. A idea that resonated across the interviews

was the need to invest in human capital and support both faculty and staff during difficult

economic times. Layoffs have not occurred at my study sites, but leaders have assigned

individuals additional responsibilities from the top down. Senior leaders review job

descriptions as positions become vacant, and potentially redistribute responsibilities

among current faculty and staff. If they determine there is a need to hire an additional

employee, the needs of the group as a whole are considered and often the new hire is

allocated to another department.

Funding streams. The participants each noted that new funding streams would be

beneficial; however, are not a likely outcome. Community college business leaders

receive funding through state appropriations, taxes, and tuition revenue. Personnel

seeking new funding streams from private funds and grants could increase revenue (Price

et al., 2015; Pucciarelli & Kaplan, 2016). Lloyd (2016) suggested leaders consider

fundraising efforts to increase scholarship opportunities for students of various ages and

academic goals to further increase student success and persistence. The participants

agreed with researchers and noted the potential positive outcomes from the increase in

scholarship opportunities through philanthropic gifts (Gyllin et al., 2015; Lloyd 2016; Price et al., 2015). The community college business leaders discussed the opportunity for grant funds to create new programs, but noted the issues with sustainability for the programs. As grants end, leaders are fiscally responsible for maintaining programs.

The participants stressed the need for a contingency plan and reserve funding. Each year community college leaders have an estimate of the total funding from the state budget, but much like the estimated number of enrollments based on previous data, the projected revenue may change. To offset a potential reduction in projected revenue, leadership may include a contingency account as a line item in the budget. This account supports operations when a revenue stream reduces, and allows leadership to maintain operations.

Regardless of the decisions community college business leaders make regarding campus operations and sustainability models, communication with all stakeholders may be a key to successful implementation. Wilson and Bower (2016) suggested that when implementing organizational change, leaders may face resistance to change. Communication with all stakeholders is a key to successful organizational change and assists in creating a connection to the objective (Boggs, 2012; De Matos & Clegg, 2013; Fry & Slocum, 2008; Galpin et al., 2015; Hohman et al., 2013; Hu & Bowman, 2016; Newman-Storen, 2014; Rast et al., 2015).

The participants suggested that, as a result of open communication from the top down, the majority of their employees understand the challenges leadership continuously face because of the defunding of higher education. Weick and Quinn (1999) suggested

leaders implementing continuous change increase employee support. As change becomes a part of the culture of an organization, the process becomes part of daily workflow and procedures. Participants stressed the need for frequent communication of the problems, and for encouragement of their employees to help in exploring innovative solutions.

As community college business leaders explore opportunities to reduce to costs, they must also consider the need to offer affordable education and keep costs low for accessibility (Price et al., 2015). All of the participants suggested the need to balance the needs of stakeholders with the need to keep costs low for students. The nominal tuition of community colleges is one piece to an overarching plan to increase student retention and success.

Emergent Theme 2: Student Success

Student success is an area college leadership has focused on as a part of their mission and purpose in a community. In the years following the 2008 recession, state performance funding centered on student success (D'Amico et al., 2014; Dougherty et al., 2014; Kerby, 2015). President Obama's student success challenge and state governmental official's performance funding requirements have encouraged leaders to reallocate portions of their operating budgets to include retention and completion efforts (Boggs, 2012; Dougherty et al., 2014; Rabovsky, 2012). Community college business leaders addressing organizational change and sustainable futures should consider the needs of all stakeholders (Christofi, et al., 2012; Kettunen, 2015; Romano, 2012). The participants noted the need to include the community needs, make data driven decisions, and implement a program to focus on student success and retention. Beyond the benefit to the

student, as enrollments and completions increase, the amount of funding from tuition and the state budget increases.

Hu and Bowman (2016) suggested that community college business leaders and business and industry leadership work to form programs conducive to the needs of the local workforce for sustainable business practices for all parties. Yarnall et al. (2016) suggested community college business leaders work to include business and industry needs into program offerings. Educational and business leaders partnerships create a combine force to address the gaps in workforce needs and skillsets with the local population and create a positive social impact on local and state economies (Hu & Bowman, 2016). Educational opportunities should change as new needs arise within the local workforce (Lobo, 2015; Otara, 2015; Pucciarelli & Kaplan, 2016; Sazonov et al., 2015). Continuous change efforts may improve operations through increased efficiency and goal attainment (Bowen-Ellzey et al., 2013; Newman, 2007; Weick & Quinn, 1999). Weick and Quinn (1999) suggested continuous change encourages employee support and acceptance of leadership change efforts.

The participants suggested that a strong connection to the community and business and industry enhances the opportunities for their graduates through programs that meet the local workforce needs and employability following graduation. When leadership offers programs that have a direct connection to employability, enrollments may increase having a direct connection to program growth and increased funding from tuition revenue and state appropriations. Through partnerships, community college business leaders and local workforce personnel create pathways for students to earn

various certificates and degrees to meet the needs of the local community economy and sustainability of the program (Yarnall et al., 2016).

Community college business leaders may create pathways based on industry needs to positively affect student success (Hu & Bowman, 2016). Implementing a pathway approach could increase the efficiency of academic departments and individual programs (Manning & Costa, 2014). Community college business leaders are using the new approach for student success, allowing students to track their progress and steps each semester toward their education goal. The participants noted the success they experienced with incorporating pathway programs as a part of their retention and students success strategies.

Partnerships are conducive to creating stackable credentials. Students may enroll in a short-term program that enables them to gain an employable skill, increase the local workforce, and provide a reportable completion for the community college leaders (Audant, 2015; Hu & Bowman, 2016). The participants discussed the benefit of organizational change in operations and structure including stackable credentials into their programs. Stackable credentials may increase program completions, having a direct correlation to increased revenue. Audant (2015) suggested through multiple areas within a program to start, or conclude, all parties benefitted. Community college business leaders implementing stackable credentials add to the values of creating a college going culture, instituting a seamless transition from high school, through college, and into their career.

Wilson and Bower (2016) suggested that the *Achieving the Dream Reform* is a

program community college business leaders may join in efforts to increase student

persistence and success with data driven decisions. The business leaders from community

colleges used in this study are members of this program and experienced positive results.

As state governmental leadership has moved to performance-based funding, community

college business leaders may use the *Achieving the Dream* platform to refocus campus

operations to increase student success (Wilson & Bower, 2016). The participants noted

using the reform changed the approach to decision making from predicting, to business

centered, data-driven decisions. Community college business leaders may choose to

refocus individual campus operations, or systemically change operations throughout the

organization to include retention programs, a mandatory college preparation course,

identifying students at risk of failing, collaboration across campus between faculty and

staff, analysis of student success in individual classes, and interdisciplinary course

alignment (Wilson & Bower, 2016). The participants used the reform as a platform for

organizational change within their institutions focusing on student success as a key

element to change and progress.

Applications to Professional Practice

The results of this study may serve the community college business leaders within

the State of Texas and throughout the nation with strategies to support budget decisions

to maintain organizational sustainability after a continuous reduction in state

appropriations. Various state governmental administrators may choose to make different

corrective measures to manage their budgets. Items of consideration for corrective

measures include the United States and their state economies, along with the state

agencies that require funding (Zumeta, 2014). Community college funding is a part of the discretionary funds within a state budget and often receives only a portion of the money that remains in the budget. The results of this study may assist in the implementation of funding strategies based off the identified resolutions by the community college business leaders participating in this study to the defunding of higher education. While there is a knowledge of the problem, the resolution is still of concern.

The participants expressed similar views as the researchers and noted a need for a paradigm shift in higher education with a focus on the needs of their stakeholders (Black, 2015; Castiglia & Smith-Knopik, 2013; Marshak, 2002). Community college business leaders may use the identified strategies to address and resolve the issues defunding from state administrators has enacted. All of the participants noted a positive change to their organization through a focused review of the needs of all stakeholders. Throughout the organizational change process, a business centered approach to decision making through data driven results and a focus on student success enabled the participants of this study to create sustainable futures strategies. Strategies included (a) a review of organizational structure for efficient operations through a focus on resource allocation, (b) program review to include business and industry needs, (c) a position review of job descriptions and campus needs while supporting human capital, and (d) implementation of a student success program. All of these strategies support the findings for the need for a paradigm shift in higher education institutions with episodic change followed by continuous change for sustainable futures (Castiglia & Smith-Knopik, 2013; Jenkins & Rodriguez, 2013; Marshak, 2002).

Implications for Social Change

The exploration and findings of strategies to support organizational sustainability in community colleges is important to ensure organizational sustainability of the institution, but also in support of the growth and economic stability of the community. Through implementation of sustainable futures, community college business leaders protect the quality of education (Oliff et al., 2013) and workforce development (Crookston & Hooks, 2012). Heather, Shelia, Watkins, and Stucky (2015) suggested that community college business leaders offer programs that have a positive social and economic impact on a community. By addressing the gaps in workforce needs and skillsets with the local population, community college faculty and staff create a positive social impact on local and state economies (Hu & Bowman, 2016).

As a result of this study the implications for positive social change include providing quality, affordable education to improve the lives of individuals, meeting the local workforce needs, and economic development within communities. The economy adversely effects the enrollments at community college (Heather et al., 2015). As the economy contracts, enrollments in community colleges may increase as community members are seeking an employable skill. Individuals benefit from taking workforce education courses by learning an employable skill, enabling them to become a contributing member of the community. As the community workforce grows, the local economy expands, increasing the standard of living and wellbeing of the citizens.

Recommendations for Action

As a result of this study, community college business leaders may find a useful

action plan to recover from the defunding from the state level and to plan for requirements from state educational agencies. The Texas Higher Education Coordinating Board published their strategic plan in 2015 for the next 15 years. The agency's leaders charged community college business leaders with assisting the State to increase the number of certificate and associate degree completions of Texans ranging in the ages 25-34 to 60% of the population (Texas Higher Education Coordinating Board, 2015).

The action plan includes a multiple step process to include an internal look into the culture of their organization and how to implement organizational change. Researchers suggested, and the participants agreed with, the need for episodic change to address the altered environment followed by continuous change in moving forward (Castiglia & Smith-Knopik, 2013; Jenkins & Rodriguez, 2013; Marshak, 2002). Leaders should begin this process by reviewing the structure of their organization and their budgetary commitments.

The senior leaders should review revenues and expenditures for each department to identify unnecessary line items and those that could be reduced. The next steps include a job analysis of all positions and a review of all departments on campus, and determining what areas to eliminate, or combine. A thorough review does not require layoffs, but enables leaders to make informed decisions about the organizational structure and future hiring processes. Employees may need to absorb responsibilities from vacant positions for a more efficient use of space and resources. As a final step, leaders should inform their staff and faculty of the defunding they have faced and direction they plan to take for recovery.

In moving forward, leaders should continue to implement strategies for sustainable futures through a continuous change effort across the institution. Employees may begin to view change as a standard part of operations and seek innovative solutions as repetition occurs and the culture changes (Bowen-Ellzey et al., 2013; Newman, 2007). Leaders should make decisions based on the needs of the stakeholders of the college, the effect of their decision on student success, and the implications of the bottom line. I recommend community college business leaders create a process for position and program review, institute a contingency line item into the budget, and keep an open line of communication with the staff and faculty.

As positions become vacant, leaders may review the need within the department and either fill the vacancy or allow another department to pick up the allocation to hire another employee. Leadership should review academic programs to ensure the offerings are conducive to workforce needs, the revenue from enrollments supports the expenses, and students meet learning outcomes. As the process becomes repetitive, employee support may increase (Weick & Quinn, 1999). Leaders may choose to institute a contingency plan during times of unforeseen delays in receipt of funding, an increase in unfunded mandates occurs, or if tuition revenue reduces.

Throughout the process, leadership should ensure employees are informed. A key to successful organizational change is communication with all stakeholders (Boggs, 2012; De Matos & Clegg, 2013; Fry & Slocum, 2008; Hohman et al., 2013). When employees are informed, they may embrace and look to forthcoming changes enhancing the potential for sustainable futures.

The results from the study may be useful to community college business leaders throughout Texas and potentially the United States. The numerous state government and education agencies require various mandates, funding cuts, and goals, but the overarching question of sustainable futures may be applicable. Community college business leaders may use the results and sustainability strategies at educational conferences and in higher education journals. I will disseminate a summary of the findings to the participants of the study, the leadership of the institution I serve, and through various colleagues among the local colleges in the Central Texas area.

Recommendations for Further Research

This study included only sustainable practices from leadership from three community colleges in the Central Texas area. Because there are 50 community colleges in Texas and 1,655 across the United States, the study may not be comprehensive of the community college community and transferable to the broader population. I explored multiple areas of sustainability through a review of potential funding streams, organizational structure, and operational decisions, but the participants introduced a growing concern for competition of enrollments that may affect sustainability. Further research in the competition among community colleges and universities for enrollments may impact sustainability of community colleges in Texas and across the nation.

Strategies are needed to focus on the growing concern of competition among community colleges and universities for enrollments. As the defunding continues and unfunded mandates increase, community college business leaders must also react to the changes of community college service area boundary lines. Texas Higher Education

Coordinating Board created service areas to present the boundaries for offering

education; however, in recent times the participants noted the lines are diminishing.

Competition has increased for enrollments of dual credit, to include the universities

having the option of providing dual credit to the independent school districts.

Reflections

Prior to beginning the doctorate of business administration program, I believed

that I had mastered the art of time management. Through the introduction of a rigorous

program in addition to working fulltime, operating a small business, and managing family

life, I realized that I had to refocus my organizational outlook. Once I realized this fact, I

was able to formulate a new outlook that has not only benefited myself, but in sharing my

practices with the students enrolled in my lecture and online classes at the institution I

serve.

Working as a professional in the field since 2007, I had ideas for sustainable

futures prior to entering the program. During data collection, the participants shared

insights that were similar of nature to my own. The participants did not introduce some of

my personal perspectives such as differential tuition, creating good will through

community involvement, and partnerships with universities to expand enrollments. I

avoided personal bias of suggestions for sustainable future and stayed focused on the

perspective of the participant.

I had originally researched the benefit of using Dragon software to record and

transcribe my data. The software uses voice recognition to assist in the transcription

process. Upon further research and beginning the data collection process, I realized the

software only recognized one voice. At that point, I purchased Voice Recorder Plus iPhone application. I recorded the interviews with the application and then transcribed the interviews.

I was confident that I would be successful in completing the program within five, 8-week sessions after completion of the coursework. Through various personal and professional obstacles, the process took longer than originally anticipated. The added time enabled me to broaden my focus on goal attainment and acceptance of barriers as some things are beyond the individual's control. Regardless of the plan an individual may develop, change and reorganization is a part of the process.

Completing the doctoral study has allowed me to further my knowledge of leadership and practices for successful operations and sustainable futures of community colleges. Throughout the process I have shared the knowledge gained with leaders of the institution I serve, colleagues, and my students. I have also been fortunate to share the experience with my family, specifically instilling the purpose and benefit of pursuing higher education in my son.

Summary and Study Conclusions

The defunding of higher education is causing administrators of public institutions to increase tuition, or reduce budgets and resources available to operations, limiting strategies and funding to organizational sustainability (D'Amico et al., 2012; Dougherty et al., 2013; Friedel & Thomas, 2013; Goldstein, 2012). While university business leaders have the ability to increase tuition to cover loss of funding, community college business leaders must consider the implications and mission of serving the community and

providing affordable education. Leaders must develop strategies to support budget decisions to maintain organizational sustainability.

Findings from this research suggested that community college business leaders should refocus campus operations and center decisions based off a business focused plan and implement student success initiatives (Price et al., 2015). A paradigm shift in thinking has been on the horizon and leaders can no longer ignore the implications from defunding, regardless of the prohibiting factors (Castiglia & Smith-Knopik, 2013; Houmanfar et al., 2015). In moving forward, community college business leaders must complete a system-wide review of their operations to ensure business focused strategies are in place, while seeking to increase student success and retention. Based on the findings as a result of this study, community college business leaders must develop sustainable business strategies now in efforts to continue operations into the future as the higher education landscape continues to evolve.

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Appendix A: Interview Protocol

I appreciate your time and assistance with this study. I will start recording now to capture the entire interview.

First, I would like to share with you the purpose and the details of the study prior to beginning. The defunding of higher education continues to be an issue that community college business leaders face each day, with no signs of relief in the near future as this is not a trend, but reality. Leadership must determine effective solutions to support all stakeholders, follow the mission and visions of the institution, and improve the bottom line. Through interviews and document reviews conducted for this study, I will respond to the question, "What funding strategies do community college business leaders use to support budget decisions to maintain organizational sustainability?"

The interview will take approximately 45 minutes. If you do not have any questions, I will begin with the interview questions.

1. How have state budget reductions affected the budget decisions at your institution?

2. How have you reorganized campus operations to meet the needs of new budget

    decisions to maintain organizational sustainability?

3. How have you explored processes for a sustainable future that will meet the needs of

    all stakeholders?

4. How have you explored the current issues in sustainability while ensuring that new

    issues are not created?

5. How can leaders identify new funding streams to offset the reduced budgets?

6. What additional information would you like to add that has not been discussed, but

    pertinent to sustainably models?

I appreciate your time and your insight into my study and your expertise and knowledge. Over the next week, I will review the transcripts and summarize of my interpretation of the interview for your review. I will email the summary and request either your approval or suggestions for changes.

As I move forward in the process, I will remove any reference to your name or your employer as noted in the consent form. To ensure protection of your identity and the

college you serve, I will protect all data to include written documents and a password protected flash drive with audio and Word files in a locked box for 5 years. I will be the only person that has access to the storage. Upon conclusion of the 5 years, I will personally destroy all data. I will erase the flash drive and shred the written notes.

Appendix B: E-mail Requesting Interview

July 19, 2015

Dear Participant A,

I am currently perusing my doctorate of business administration with a specialization in leadership at Walden University. I have completed my coursework and progressed to my doctoral study focused on sustainability models for community college business leaders.

The defunding of higher education continues to be an issue that administrators face each day, with no signs of relief in the near future. Researchers suggested that leadership must determine effective solutions to support all stakeholders, follow the mission and visions of the institution, and improve the bottom line. Through interviews conducted for my doctoral study, I plan to gain insight into the suggested solutions to the paradigm shift.

I am requesting your assistance to serve as a participant in this study based on your practice and expertise in the field. If you agree to the study, I will first send you the interview questions by e-mail and then follow up with a face to face interview at the location of your choice. I plan to record the sessions and take notes. I will provide a summary for your review to confirm my understanding of the interview and ensure accurate meaning. As I move forward with my study, I will remove any reference to your name or your employer.

If you are willing to participate, please e-mail or call me with your preferred scheduled and desired location. I look forward to hearing from you.

Sincerely,

Angela Reese
xxxxxxxxxx.xxxxx@waldenu.edu
xxx-xxx-xxxx

Appendix C: Consent Form

You are invited to participate in a research study on sustainability models for community college managers. You are invited to participate because you are a chancellor, vice chancellor, president, or vice president at the community college you serve. This form is a requirement for the study stating that you understood the study prior to deciding to be a participant. Please read the below information on the study prior to determining if you are willing to be a participant.

Angela Reese is a doctoral of business administration candidate at Walden University and will be conducting the interview. You may already know this candidate from her role as a faculty member at Central Texas College or in her role in the Central Texas Community. This study is not connected to her role at Central Texas College. Participation in this study is voluntary and not a conflict of interest between you and the researcher.

Background information: The purpose of this qualitative multiple case study is to explore funding strategies that community college business leaders use to support budget decisions that maintain organizational sustainability.

Procedures: If you agree to participate in this study, you will be interviewed by the candidate, the interview will be recorded, it will last no longer than 1 hour, and you will be requested to confirm a summary of the interview within a week of the interview. It should take no longer than 15 minutes to review the summary. Extra time will be allowed, as needed, past the expected 1 hour to ensure you have enough time to respond to all questions.

Voluntary Nature of the Study: You understand that your participation is voluntary and will not affect your relationship with the candidate. You may withdraw from the study at any point.

Risks and Benefits: There are no known risks or benefits to participation in this study. If at any time you are uncomfortable, you can stop the interview or refuse to answer a question. Upon completion and publication of the study, you will receive a summary of findings in appreciation of your contribution. As a result of this proposed study, the implications for positive social change include providing quality, affordable education to improve the lives of individuals, meeting the local workforce needs, and economic development within communities. Creating a college going culture contributes to the enhancement of society by promoting the development and betterment of the individual and family. This then leads to improvements within the community with additional resources to further the expansion of economic strength.

Compensation: There will no compensation for your participation in this study.

Privacy: The data collection will be confidential. Your name and the name of your institution will not be included in the study. Data will be kept in a secure location in a locked box for 5 years and will be not be used beyond the parameters of this study. Concluding the 5-year period, written data will be shredded and electronic data will be erased. If you disclose illegal activities, I have an obligation to report that to the proper authorities.

Contact and Questions: The researcher conducting this study is Angela Reese, a student at Walden University and can be contacted at xxxxxxxx. If you have any questions about your rights as a participant, please contact Dr. Leilani Endicott to discuss your participant's rights privately. Dr. Leilani is the designated Walden University representative who is accessible to discuss the above information with you. Her phone number is (XXX) XXX-XXXX. Walden University's approval number is 02-05-16-0476055.

Interview Questions:

1. How have state budget reductions affected the budget decisions at your institution?

2. How have you reorganized campus operations to meet the needs of new budget

   decisions to maintain organizational sustainability?

3. How have you explored processes for a sustainable future that will meet the needs of

   all stakeholders?

4. How have you explored the current issues in sustainability while ensuring that new

   issues are not created?

5. How can leaders identify new funding streams to offset the reduced budgets?

6. What additional information would you like to add that has not been discussed, but

   pertinent to sustainably models?

By signing below, you provide your consent to the terms of this study. You will receive an email copy of the signed consent form with the summary of the interview.
_____
Printed name of Participant

_____

Date

_____

Participant Signature

_____

Researcher's Signature

Appendix D: Interview Questions

1. How have state budget reductions affected the budget decisions at your institution?

2. How have you reorganized campus operations to meet the needs of new budget decisions to maintain organizational sustainability?

3. How have you explored processes for a sustainable future that will meet the needs of all stakeholders?

4. How have you explored the current issues in sustainability while ensuring that new issues are not created?

5. How can leaders identify new funding streams to offset the reduced budgets?

6. What additional information would you like to add that has not been discussed, but pertinent to sustainability models?