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EXAMINING THE FUNDING REQUEST PROCESS BETWEEN PUBLIC HIGHER EDUCATION AND THE STATE LEGISLATURE

By

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ABSTRACT

EXAMINING THE FUNDING REQUEST PROCESS BETWEEN PUBLIC HIGHER EDUCATION AND THE STATE LEGISLATURE

By

Andrew Michael Midgley

This research examined the funding request process whereby higher education institutions seek financial support from state government. The study tested whether a model based on state goals and priorities for higher education could distinguish a funded request from an unfunded request. The research was qualitative and followed a comparative case design examining two instances where Michigan State University submitted a funding request for a project through the state of Michigan's capital outlay process. One of the requests received funding while the other funding request did not. Information on each case was collected through interviews with people involved in the design and implementation of each funding request, and through an analysis of relevant documentation on each request. A conceptual framework based on perceived state goals and priorities for higher education and lobbying methods was used to analyze the cases.

The research findings revealed that the case that received funding aligned more closely with the components of the study's conceptual framework than did the case that did not receive funding. However, the interview process revealed that closely aligning with the conceptual framework was not the primary reason for the final outcome of each

case. Factors outside the control of the institutions, specifically the economic conditions in Michigan, contributed to whether funding for both cases was granted. Although the model tested was beneficial in distinguishing the unfunded from the funded case, the findings indicated that the model itself needed to be modified to account for variables outside the control of the institution in all stages of development of the funding requests. The environment that influences state higher education funding is very dynamic, and institutions need to adjust each funding request accordingly throughout the design and implementation process.

This dissertation is dedicated to my wife Kimberle and my sons Nicholas and Nathan.
Your support and love has meant everything.

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Images in this dissertation are presented in color.

CHAPTER 1

INTRODUCTION

Funding from the state government plays an essential role in the continuing operations of a public higher education institution. It is important that a college or university have the resources needed to carry out its mission and to provide a quality education to those who seek it. These resources would include funding for program needs, student aid, advancements in technology, and adequate facilities. With the national economy struggling and other government-supported agencies competing for limited available state funds, ensuring that higher education has the resources it needs is an ever-increasing challenge, especially for public institutions that have come to rely on state government funding.

State government supplies a large, but decreasing, share of support for public higher education (Gittell & Sedgley, 2000). It is no secret that higher education has been faced with hard financial times for many years (Leslie & Fretwell Jr., 1996). State support for higher education is directly related to the general condition of a state's economy, state tax capacity, and availability of revenues (Layzell & Lyddon, 1990; Zumeta, 2007). The declining economic conditions in the United States, particularly in the last decade, and the emphasis on making higher education accessible to a diverse student population are placing even more financial demands on colleges and universities. The challenge administrators are faced with is that demands on higher education are soaring while state appropriations are shrinking, and it will take much more than an

improved economy to find a balance between institutional needs and available resources (Conklin & Reindl, 2004).

In a time when many state-funded institutions are seeing a reduction in appropriations, it is important for administrators in higher education to develop effective planning strategies when seeking future financial support from the state. With many other state-supported agencies seeking funding for their needs, state legislators are required to make difficult choices when allocating appropriations. The dilemma higher education faces is funding expenditures critical to providing the best education possible. Advancements in technology, deferred maintenance of existing campus infrastructure, and training programs for newly developed jobs are just a few examples of the issues higher education institutions have to address in the twenty-first century (California Postsecondary Education Commission Fact Sheet 05-06, June 2006; Holleque & Cartwright, 1997). The natural institutional drive to maximize resources inevitably collides with a natural governmental objective to minimize taxes and expenditures (Furniss & Gardner 1979).

With fierce competition for limited state funds, higher education administrators need to reevaluate how requests for those funds are designed and implemented. One question to be answered is whether following a guiding model or framework could be beneficial when a college or university is planning future funding requests to the state. The first step in answering this question is to develop a strategic model that addresses what state legislatures expect from the higher education institutions they fund. This is an area of higher education administration that has not been given much attention. It would be beneficial to determine if a postsecondary institution would be in a better position to

compete for state funds by utilizing a model to design and implement funding request initiatives.

This topic is of particular interest to me because of the current position I hold within the administrative structure at Michigan State University (MSU). I have worked for the Office of Planning and Budgets and currently work for Campus Planning and Administration. Both units play a role in Michigan State University's funding request planning process. Although I have not been directly involved in the process, one of the duties of my position is to provide information to those at MSU who do design and implement funding requests to the Michigan State Legislature. For this reason I am interested in learning how public funding requests are designed and implemented and why some projects are funded while others that seem equally important are not.

Overview of the Study

This research project analyzes the process by which a higher education institution designs and implements requests for state funding. Through a review of conceptual and practical literature in the fields of higher education administration and political science, a conceptual framework was developed and used as a model for examining the funding request process. The framework identifies the goals and strategies that state government typically looks for when awarding appropriations to a postsecondary institution. These goals and strategies are what the state believes lead to a quality higher education experience that, in return, benefits the state and its citizens. In addition, the framework considers variables outside the control of the postsecondary institution that influence public funding and examines the manner in which funding requests are presented to the

state legislature. The study specifically examined requests for funding that are in addition to the annual appropriations the university receives from the state.

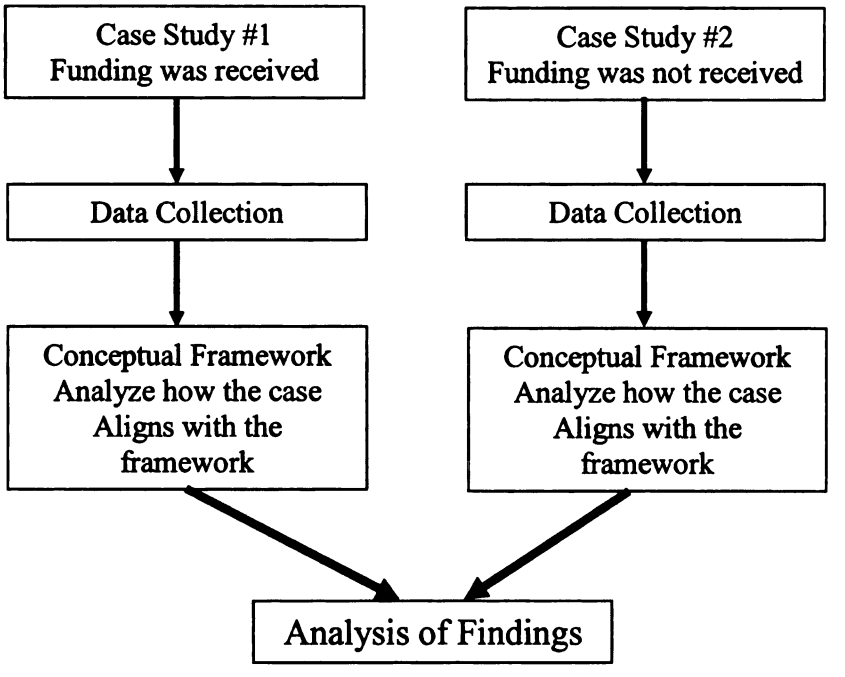
The study tests the usefulness of the conceptual framework by examining two cases in which a public institution, Michigan State University, submitted requests for additional funding to the state. The specific cases analyzed in this study involved two instances where the university submitted a request for funds through the state of Michigan's Capital Outlay funding request process. The first case studied involved a request for funding to construct an addition to the chemistry building on the university's campus. In this case, Michigan State University received the desired funding. The second case involved a request for funding to add Biological Safety level 3 laboratories (BSL-3 labs) to the university research containment facility for the purpose of conducting highly sensitive research in the area of animal pathology. In this case, Michigan State University did not receive the desired funding.

A qualitative comparative analysis of the two cases was done by reviewing available documentation on the two cases and conducting open-ended interviews with individuals involved in the design and implementation of both funding requests for the institution. The research design follows the work of Robert Yin's case study analysis method (2003) and borrows from Merriam's (1998) and Gerring's (2007) interpretation of cross-case analysis. Specifically, I analyzed how the two funding requests were designed and implemented by the institution. To do this, I used the conceptual framework as a tool to determine if the case where Michigan State University received funding was more closely aligned with the components of the framework than the case

that did not receive funding. The conceptual framework is discussed in more detail in Chapter 2.

Figure 1.1 provides a visual depiction of how the research was conducted.

FIGURE 1.1



It is important to emphasize that while the two case studies analyzed involved Michigan State University requesting capital outlay funds for two specific projects, the purpose of the study is to examine the process of higher education seeking state funding overall. The two cases seeking capital outlay funding for specific projects are used only as examples to study the larger issue of higher education institutions requesting state funding.

Definitions

The process of requesting funds from the state is referred to throughout this study as the funding request process. For both cases, the actual funding request the university presented is referred to as the funding request initiative. When the research results are presented in chapter 4, each funding request initiative is analyzed individually. At this point, the funding request initiative being analyzed is referred to either as "the case" or by the name of the project. Michigan State University is abbreviated as MSU at times.

Need for the Study

Since MSU is one of Michigan's three research institutions and one of 15 four-year higher education institutions in Michigan receiving state support, additional funding beyond annual appropriations can be difficult to obtain. Not only is there competition for appropriations from the other public higher education institutions in the state, there is also competition from other state agencies. Many states are faced with rising costs for Medicaid and other health programs, all while financial demands are continuing from K - 12, state parks, welfare, and other sectors (Change, July/August, 2005; Hossler, Lund, Ramin, Westfall, & Irish, 1997; Okunade, 2004). The rapidly escalating costs of Medicaid, more than anything else, explain why total state and local spending on health care alone is projected to grow faster than spending on higher education (Jones, 2006; Williams, 2008).

At the time of this research, funding for higher education in Michigan was continuing to be negatively impacted by a declining state economy. Between the years of 2001 and 2007, state support per student had decreased from $6,840 in 2001 to $5,700 in

2007 (Duderstadt, 2008). These continued reductions make requesting additional state support much more difficult for an institution than it already is. Developing a funding request that effectively conveys an institution's need as well as how that need addresses the state's goals for higher education becomes an even more critical process.

Even with a poor economy, however, there is evidence to suggest that it would be wise for Michigan to invest in higher education for future long-term benefits. In 2005, a study was conducted on the impact higher education has on the economic development of the state. According to the study, the $1.5 billion invested in higher education for Michigan's institutions in 1999 brought $39 billion of economic benefits. The study also showed that nationwide, states with the healthiest economies typically had 40 percent of their adult residents holding a bachelor's degree (noted in Prism, 2005). As of 2005, only half of that percentage holds a bachelor's degree in Michigan. In addition, the study showed that only half of those receiving college degrees from Michigan colleges and universities remain in the state after graduation. The challenge for a public higher education institution, such as Michigan State University, is for each funding request initiative to show that the particular request needing funds is vital to forwarding the school's mission while also benefiting the state.

From a broader perspective, this study addresses an area of state funding for higher education that has not been well researched. While there have been analyses of how states should allocate appropriations to higher education (St. John, 1991) and research on the differences in state support for higher education (Weerts & Ronca, 2006), very little has been done on examining the state funding process from an individual higher education institution's perspective. Testing the relevance of a funding request

model could lead to state-supported higher education institutions designing and implementing future funding requests more effectively. Ideally, this research project lays a foundation for further study in the area of state funding for higher education.

Research Questions

The study attempts to answer two primary research questions as well as subsidiary questions. These questions are answered after the data analysis in chapter 4.

1) **Did the request that received funding align more closely with the conceptual framework than did the request that did not receive funding?**

With this question, I want to determine if the case that received funding aligned more closely with the components of the conceptual framework than did the unfunded case. A subset of questions related to the first research question asks which case aligned more closely with each specific component of the conceptual framework. Again, the components of the conceptual framework will be discussed in more detail in Chapter 2. The questions in the subset are as follows:

A. Did the request that received funding align more closely with the goals component of the framework than did the unfunded request?
B. Did the request that received funding align more closely with the strategies component of the framework than did the unfunded request?

C. Did the request that received funding align more closely with the contextual component than did the unfunded request?

D. Was the request that received funding presented in a different manner (passive versus aggressive) than the request that did not receive funding?

The second research question is as follows:

2) **Is there evidence that a funding request strategy that aligns closely with a model addressing state priorities and goals for higher education may enhance the likelihood of an institution receiving funds?**

By analyzing how well each case paralleled the components of the conceptual framework, I want to be able to determine if following a model based on state priorities and goals would benefit an institution in the funding request process.

Format of the Dissertation

I have organized this research report in the following sequence. The complete dissertation is organized into five chapters. Chapter 1 provides an introduction to the study. Chapter 2 presents a review of literature on this topic where I examine what has been written and researched in the area of state funding and higher education as it relates to the research topic. It is in chapter 2 that the conceptual framework tested in the research is presented and explained. Chapter 3 discusses the methodology used in conducting the research. In Chapter 3, I provide an in-depth description of the setting for

the research which includes both the institution (Michigan State University) and the state (Michigan).

The next two chapters then explore and discuss the research findings. Chapter 4 presents the analysis of the findings from the study. The two funding requests that were researched in the study are presented individually, followed by a comparison of the two cases. This chapter is also where the research questions are answered. Finally, Chapter 5 elaborates on what the results mean. This chapter summarizes the research, interprets the results, and explains the limitations of the study. The chapter concludes with a discussion of the study's implications for practice in higher education as well as for future research.

The study was designed to collect and analyze data from the two cases to determine if following a model based on a state's goals and priorities for higher education would enhance an institution's position when requesting additional state funds. The purpose of this research is to challenge higher education administrators to rethink the process of how they request state funds. Ideally a model that could be used as a starting point for higher education administrators when designing and implementing future state funding request initiatives would simplify and enhance the effectiveness of the funding request process for higher education institutions. Obviously, one single model will not fit every institution or the needs of all institutions. However, a model could serve two purposes. First, a model would provide administrators with information on what to consider when planning future funding request initiatives. Second, a model of the funding request process can encourage further research in the area of higher education and state funding, especially from the institution's perspective.

CHAPTER 2

LITERATURE REVIEW

A review of literature on state funding and higher education reveals a lack of research on the process by which an institution designs and implements a funding request. To get a better understanding of this process, I reviewed books, journal articles, periodicals, and online resources relating to different areas of state funding for higher education. Through this review I was able to analyze research that has been conducted in the area of this topic and better understand the relationship between state government and higher education as it relates to funding. The review of literature also shaped the conceptual framework tested in this study.

This chapter is organized into five sections. The first section discusses government involvement with funding for higher education. The second section examines influences on state funding for higher education. The third section analyzes funding request methods. The fourth section reviews the allocation of state funds for higher education. The last section presents and discusses the conceptual framework tested in the study. Some sections are divided into subsections that focus on specific aspects of the topic. Much of the literature focused on higher education funding at the state level, although literature related to higher education funding at the federal level was reviewed as well.

Government and Higher Education Funding

Government plays a critical role in funding the nation's public higher education system. While both the federal and state governments provide funding for higher education, differences exist as to the involvement of each in the funding request process. This research focuses on the higher education funding request process at the state level. However, it is important to understand the process for both the federal and state levels, as some of the concepts presented from the federal perspective can be applied to state government.

The federal government focuses on funding issues [such as academic research and student aid programs] from a national perspective (Cook, 1998; Wolanin, 1998). At the federal level, it is common to form a coalition or an association during the funding request process based on the needs of a specific group of colleges and universities (Cook, 1998). Several associations representing the various needs of higher education reside in Washington D.C. with the primary purpose of lobbying for federal dollars (Cook, 1998). In addition, higher education can receive federal funding in the form of earmarks, which are a polarizing way of tucking expenditures for a specific purpose into a larger legislative bill (Savage, 2007; Finnigan, 2006; Minge, 2001).

Government at the state level is usually involved in the funding request process on an institutional basis (Cook, 1998; Goodall, 1987). Public higher education institutions are essentially state-owned enterprises (Lowry, 2007). State legislators can hear funding requests that range anywhere from raising faculty salaries to upgrading flagship institutions to ensure a university is on par in terms of quality with peer institutions in other states (Schmidt, Selingo, & Hebel, 2000). In return, state lawmakers

have a vested interest in the quality of each of their public postsecondary institutions, as most of the higher learning in America is carried on in tax-supported state universities (Hutchins, 1999).

Influences on State Funding for Higher Education

State funding for higher education is subject to a variety of influences such as economic swings and the political landscape of the state (Hearn & Holdsworth, 2002; Coble, 2001). It is important for an institution designing a funding request to have a broad understanding of how these influences impact the state's process for providing funds. The following sections examine some of the areas and issues that can influence the higher education state-funding process.

State governance of higher education

The governance of higher education varies from state to state and, depending on how a state's higher education system is structured, can influence the appropriations process (Jeffries & Smith-Tyge, 2000). While some states operate with a statewide governing board for their postsecondary institutions, others operate with institutional autonomy (Jeffries & Smith-Tyge, 2000). In states with institutional autonomy, most of the authority to make discretionary decisions for public universities rests with the institution's board of trustees or regents (Lowry, 2007). Research on the governance of higher education has shown that governance structure and trustee selection can play a role in affecting net tuition and fee revenue (Lowry, 2003).

Yet, even in states with institutional autonomy, colleges and universities still have some accountability to the government. State government has the responsibility of budgeting for higher education operations and thus shaping the present and future direction of the institutions within that state (Layzell & Lyddon, 1990). There are also instances where states provide supplemental funding for specific requests, such as capital funds for facility projects (Valenzio, 2007). In addition, state government is usually involved in forwarding and shaping policy issues that impact their institutions (Bailey, Rom, & Taylor, 2004; Hearn & Holdsworth, 2002).

Competition for state appropriations

Public higher education is similar to other state agencies in that state government has the principle responsibility of budgeting for its operation (Layzell & Lyddon, 1990). As a result, higher education faces competition for funding among other state-supported agencies. At one point in the early 1990s, higher education was the second largest item in state budgets, following only K-12 education (Katsinas, 2005). Since the early 2000s, increased spending on health care, corrections, and K-12 education, in addition to a long term decline in sales tax revenues, has created structural deficits in many state budgets which have had some impact on higher education funding (Hossler, Lund, Ramin, Westfall, & Irish, 1997; Katsinas, 2005).

The cost of health care alone, specifically Medicaid programs, may have the biggest impact on state funding for higher education. Medicaid provides medical assistance to low income elderly and disabled people, as well as low-income families and pregnant women (Kane, Orszag & Gunter, 2003). As Kane, Orszag, and Gunter point

out, the costs to provide these programs have risen over the past two decades, which reflects expanded eligibility for the programs and an increase in cost per enrollee (Kane, Orszag & Gunter, 2003). This is an example of the various factors legislators must consider when determining how much funds to allocate to each state agency.

In addition to health care programs, higher education continues to face competition for state funds from K-12 Education. Many states have placed new initiatives on K-12 education that are going to require additional funding. Some of these new initiatives include lowering class size for primary grades, providing full-day kindergarten, prekindergarten programs, special education programs, math and science education programs, and alternative high school programs, all of which require public funding (Katsinas, 2005).

Perceptions of higher education

The turn of the millennium brought a rejuvenated emphasis on holding higher education more accountable (Burke et al, 2005; Hearn & Holdsworth, 2002). Legislators and government officials are increasingly becoming more interested in accreditation and the quality of outcomes that a college education produces (Bogue & Bingham-Hall, 2003; Rupert, 2001). As Weerts and Ronca (2006) point out, state governments and public higher education have a symbiotic relationship. The perceived quality of the education a state-supported institution provides can have a long-term impact on how successful a particular school is in the state funding request process overall (Tucker, 1996). Three specific areas many state legislators expect public higher education to be responsive to include strengthening and diversifying the economy, preparing and training a highly

skilled workforce, and raising the level of educational attainment of the state's population (Rupert, 2001).

The general public has also become more involved in monitoring the effectiveness of state supported institutions, emphasizing that a quality education is expected from the state-supported schools that use their tax dollars (Tucker, 1996). Research supports the idea that every state possesses different historical, social, political, and economic factors that have combined to form a public perception of how higher education should be funded (Martinez, 1997).

Term limits

Limiting the terms that elected state government officials can serve has also had an impact on the higher education funding request process (Rupert, 2001). For example, Michigan imposes term limits on elected government officials (Michigan Legislature, 2006). Legislators entering and exiting government affect the funding request process because of the person-to-person relationship between specific legislators and university administrators (Leubensdorf, 2006; Rupert, 2001). In addition, just as some legislators unfamiliar with how the state's higher education system operates begin to learn the funding process, their term limit takes effect and the learning process starts again with a different elected official. This turnover in legislative leadership makes it difficult to maintain any consistent vision or long-term commitment to higher education (Rupert, 2001). Leubensdorf does point out, however, that term limits can be beneficial to higher education administrators by forcing those opposing higher education's agenda out of office (Leubensdorf, 2006).

Funding Request Methods

As mentioned at the beginning of the chapter, there is a lack of research on the process by which higher education institutions design and implement funding requests to the state. However, there have been discussions in the literature on the different methods and strategies used to request or lobby for government funds. This section examines some of the more common practices used for seeking higher education funding as well as possible strategies that should be considered by higher education administrators in the funding request process. Some of the literature reviewed focused on the federal level of government, yet the concepts can be applied to the state level (Murray, 1976). I then discuss various strategies and methods used for requesting state funds.

The act of seeking funds

Two of the more commonly used practices used for seeking public higher education funding are counteractive and grassroots lobbying (Austin-Smith & Wright, 1994; Scholzman & Tierney 1986, 185 as stated in Cook, 1998). The counteractive approach involves lobbying legislatures who are openly against a group's cause (Austin-Smith & Wright, 1994). The intent of counteractive lobbying is that the group's efforts will persuade the legislators to change their opinions and come to favor an issue (Austin-Smith & Wright, 1994). Grassroots lobbying can be described as government relations people contacting their community lawmakers and people they know personally to bring more awareness to the issue that is being lobbied for (Murray, 1976; Scholzman &

Tierney 1986, 185 as stated in Cook, 1998). This method often brings new allies to the cause while offering a pretty inexpensive form of publicity.

Passive versus aggressive

Much of the literature reviewed on securing funds for higher education examined approaches to lobbying at the federal level of government. According to one practitioner, all lobbying strategies can be classified as either passive (consultative) or aggressive (Murray, 1976). A passive approach involves building positive relationships with legislators, informing legislators on issues, and working on maintaining those relationships over time (McGrath, 2005; Murray, 1976). Some examples include involving constituencies in the funding request process, working more with those who support your position than those who oppose it, prioritizing what is requested (that is, not going to the state for every need), and coalition building as a form of grassroots approach (McGrath, 2005; Murray, 1976).

An aggressive lobbying approach can be described as pressuring legislators so an issue is continuously heard or not going through the proper channels of that state's funding request process. For example, hiring a public relations firm to conduct surveys and help "market" an institution's initiative or conducting focus groups to give the perception that a larger population of people agree with a group's stance on an issue would be considered aggressive lobbying (Murray, 1976). In addition, making use of media such as television, radio, or e-mail are all examples of aggressive lobbying (McGrath, 2005; Murray, 1976).

Strategies for institutions

Those who have analyzed the funding request process from the institutional perspective offer their own perspective on the topic based on past experiences. Former Ohio State Senator and University of Akron Professor Oliver Ocasek (1973) used his experience in both government and higher education to identify a set of strategies he found successful when seeking state funds. These strategies include being informed about the funding request process, learning from successful and unsuccessful experiences, coalition building among peer institutions with similar interests, and taking advantage of a grassroots approach.

In a book edited by Leonard E. Goodall, John W. Hicks (1987) writes a section highlighting the basic principles he believes higher education should follow when requesting funds from the state government. According to Hicks, there are some government officials who will be more influential in the state appropriations process than others. Hicks advises institutions to know who these officials are and focus most of their time interacting with them specifically. He also urges using integrity and accountability when working with state legislators, as this can impact long-term working relationships, and believes in always promoting the qualities of the institution before anything else. Strategies that Hicks recommends avoiding include using faculty members as part of the funding request process, as he feels they are ineffective lobbyists, and making comparisons of your school against others, as doing this can bring retaliation from other institutions and no institution is perfect.

Kerry D. Romesburg proposed an approach that emphasizes the institution's core programs in the funding request process (2003). Romesburg discusses that higher

education institutions need to accept that they cannot be all things to all people, and in competitive times for state funds, institutions need to protect the central mission of the school. His proposed core-funding approach asks administrators to identify what programs would be "core" programs of the institution. That is, what programs really define the mission of the college or university? For example, at Michigan State University, the core programs would be those essential to its status as a research and land-grant institution. Romesburg states that this approach depends on institutional autonomy to decide what these programs are when seeking state funds. Institutions should make sure their core programs have the necessary funding first; programs outside the core should be prepared to be funded by other means in years when state appropriations are low (Romesburg, 2003).

Emphasizing the benefits of a state's investment in higher education is another approach administrators', particularly in research institutions, use when seeking state appropriations. For example, according to a report from the *Issue* (April, 2004), there are three primary reasons why investing in research is critical to a state's well-being. First, state investment leverages larger federal and industrial grants (Issue, 2004); second, research is the primary training ground for graduate students and is critically important for developing high-value jobs (Issue, 2004); third, research is the foundation for a high proportion of the innovations that lead to new commercial products and jobs (Issue, 2004).

There is not one ideal strategy or method for requesting state funds that can be used with all types of institutions or in all instances. While much has been written on the various strategies and methods higher education should use when approaching the state

funding request process, little has been found on strategies that are designed with consideration given to the criteria states use when allocating funds. Many of the funding request strategies call for emphasizing the institution's needs more so than addressing the state goals for higher education.

The Allocation of State Funds

One area of the topic of state funding and higher education that has been researched is how state government allocates funds to institutions. The following section examines research that attempts to explain why some states provide more funding to higher education than others. In addition, specific methods used by states to allocate funding to institutions are discussed.

Differences in state funding for higher education

There has been research attempting to explain why some states allocate more funds for higher education than others. One example is David J. Weerts and Justin M. Ronca's study on the differences in higher education support from state to state (2006). Their study was different from others on this topic because it emphasized variances in financial support across institutions as opposed to overall higher education support in a state. The conceptual framework used by Weerts and Ronca analyzed economic and demographic variables, political factors, higher education governance, state culture, and institutional characteristics and strategies (Weerts & Ronca, 2006). The findings of the study identified three factors to explain differences in state spending at the institutions where data were collected. These factors are campus commitment to public service and

outreach, strength of the higher education governance system, and the extent of gubernatorial and legislative support (Weerts & Ronca, 2006). However, the authors state the results have limitations for long-term planning, since the study takes into account factors over a relatively short timeframe which limits the ability to generalize to future decades (Weerts & Ronca, 2006).

Another attempt to explain the differences in higher education funding is by analyzing a state's higher education policies and the economic and political landscape (Hossler, Lund, Ramin, Westfall, & Irish, 1997; Lowry, 2001). Robert C. Lowry examined the relationship between state funding and political and economic factors (Lowry, 2001). Lowry's work proved his hypothesis that both state government funding and net tuition and fee revenues at public universities are affected by political as well as economic factors (Lowry, 2001). This puts states with weak economies in a dilemma, since raising taxes to offset funding shortfalls is never popular.

Methods for allocating state funds

The consensus among those who have researched how states allocate appropriations to higher education is that there is no single universal formula that works for all institutions in all instances (Layzell, 2007; Lowry, 2007). One of the more familiar methods of allocating state funds for higher education is making use of funding formulas (Hearn, & Holdsworth, 2002; Layzell, 2007; McKeown, 1996). Some of the advantages to using funding formulas in higher education include providing an objective method in determining institutional needs, assisting colleges and universities in meeting enrollment increases, and reducing political competition between institutions (Hearn, &

Holdsworth; 2002; McKeown, 1996). There are also disadvantages, however, in that funding formulas cannot easily assess the quality of academic programs and are subject to the accuracy of the data on which the formula is based (Hearn, & Holdsworth, 2002; McKeown, 1996).

Another method of allocating funding for higher education is through performance-based funding (Bogue & Bingham-Hall, 2003; Mullin & Honeyman, 2008). Performance-based funding can be defined as linking institutional budgets to their institution's performance and ability to meet specific goals set forth by the state (Bogue & Bingham-Hall, 2003; Mullin & Honeyman, 2008). This method is used as a way of ensuring accountability (Bogue & Bingham-Hall, 2003).

One specific funding allocation model that deserves more interest from higher education administrators was developed by Edward St. John (1991). St. John proposes a model that provides a checklist of sorts for determining how to allocate resources. It is designed to be used by state legislatures and examines how financial resources should be managed when providing appropriations to the states' public postsecondary institutions. Although the model is intended to be used by state legislators, St. John suggests that administrators in higher education consider the model as well (St. John, 1991).

The model itself consists of four components, each having its own set of criteria. The four components of the model are (1) state goals, objectives, and outcomes for higher education; (2) resource management strategies; (3) intervening factors internal to the state legislature; (4) and exogenous factors outside of the legislature's control (St. John, 1991). St. John suggests that state officials making decisions in the appropriations process to

utilize the model as a means for determining the right amount of funding to appropriate for maximizing the quality of higher education.

While there have been strategies and methods presented in the literature on how higher education should approach the funding request process, many of those strategies and methods focus mainly on promoting the qualities of the institution. There is a need for developing a funding request model with a primary emphasis on addressing state goals and priorities for higher education. The literature examining the allocation of state funds for higher education provided an understanding as to how states decide where and how much funding a public institution gets. In particular, Edward St. John's (1991) resource management model offers good insight as to what state legislators should be considering when allocating funds to a public college or university. It is the components of St. John's model that provide the foundation for the conceptual framework of the funding request model tested in this study.

In the conceptual framework developed for this research, I employed elements of St. Johns' resource management model as a means for analyzing how a higher education institution designs and implements a request for state funds. I also incorporated the idea of passive versus aggressive lobbying into the conceptual framework to examine how the funding request was presented to the state. The framework provides a lens, or suggested checklist, based on state goals and priorities, for higher education administrators to use when designing and implementing their funding request initiatives. The next section of the literature review provides a detailed description of the conceptual framework used in this research.

Conceptual Framework

The conceptual framework tested in this study has four components. The first two components relate to the process of designing a funding request to the state. The first component of the framework examines a set of goals St. John suggests a state legislature expects higher education institutions to meet with the funding provided. The second component is concerned with specific strategies a state legislature expects higher education institutions to employ with the allocated funding.

The next two components relate to the implementation of the funding request. The third component takes both the intervening factors and exogenous factors that St. John discusses and combines them into a component I call "contextual". The contextual component addresses issues that are beyond the control of a higher education institution but can influence the funding request process. For example, shifts in business cycles, which can have an influence on state spending for higher education, would be an issue beyond the control of a higher education institution (Humphreys, 2000; Kane, Orszag & Gunter, 2003). The fourth component examines whether the steps used in presenting the funding request were passive or aggressive in nature (McGrath, 2005; Murray, 1976). An explanation of each component and a depiction of the conceptual framework follow.

COMPONENT 1: Goals

The first component in the conceptual framework focuses on the goals a state typically has for its higher education institutions. St. John identifies three specific goals for colleges and universities to meet in providing a state subsidized education. These goals include equity, quality, and economic development (St. John, 1991). Quality

concerns the effectiveness of the academic programs offered (St. John, 1991). For example, will the additional funding improve or enhance the educational experience of the student? Will it better prepare individuals to be more productive in society? Equity involves providing equal access and opportunity to the residents of the state (St. John, 1991). For example, will the funding request increase opportunities for a larger percentage of society to attend a college or university? Will the likelihood of students who may not otherwise receive a college education increase as a result of the funding being provided? The third goal of the funding should be economic development (St. John, 1991). Will the end result of the state funding ultimately lead to positive growth in the state's economy? It is possible of course, that a specific funding request initiative will address one goal more than another.

COMPONENT 2: Strategies

The second component of the conceptual framework involves the five strategies that St. John believes are important for a state-funded higher education institution to employ. The purpose of these strategies is to ensure that an institution is maximizing its efforts to provide the best educational experience for students. Ideally, the funding request for the proposed project will address each of St. John's strategies to some degree; that will not always occur, however. As with the state's goals in component 1, the funding request may emphasize one particular strategy more than another. It is also important to note that not every one of the institution's funding request initiatives will address every one of the five strategies highlighted by St. John. Depending on the issue or item for which funding is being requested, some strategies may not need to be

addressed. However, according to the conceptual framework, the more strategies with which the funding request initiative is aligned, the better the chances are of receiving funding. An explanation of each strategy follows.

Strategy 1: Program and facilities planning

The first strategy looks at whether or not the initiative needing funding maximizes the use and effectiveness of campus facilities (St. John, 1991). There are multiple ways this can be explained. One possibility is whether or not the initiative needing funds can centralize a program to a single location as opposed to housing it in several different facilities. For example, an institution may want funding to build a new facility that will take multiple existing programs and consolidate them into one location, thereby closing unused facilities and saving on future operating costs.

Another option could have the institution requesting funds to renovate or upgrade existing facilities that have either severe deferred maintenance problems or need improvements to stay current with technology (Lee & Clery, 2004; Howell, Williams & Lindsey, 2003). Addressing a deferred maintenance issue can lead to future savings in energy costs, electrical consumption, and building code compliance (Lee & Clery, 2004). Technical upgrades, such as wireless internet services in class and dorm rooms would lead to enhanced learning opportunities while allowing the institution to stay competitive with other schools in terms of resources offered (Howell, Williams & Lindsey, 2003). Legislators will want to be assured that existing campus facilities are not only being utilized effectively but also being properly maintained and upgraded.

Strategy 2: Maximizing cost management

This strategy is designed to ensure the initiative needing funds maximizes the institution's ability to manage costs (St. John, 1991). For example, would the proposed initiative help control the operating costs of the institution? According to the St. John model, it would be in the institution's best interest to provide evidence that receiving the requested funding will lead to decreases in the cost of day-to-day activities and will help keep these costs down long-term. The state would not want to allocate additional funds to an institution if such initiatives will add expenses to running the school.

Strategy 3: Ensuring proper use of institutional subsidies

This strategy promotes proper management of institutional subsidies (St. John, 1991). Public institutions receive an established dollar amount of state appropriations each year (Illinois State University, 2008). The actual amount of these appropriations is determined by a number of external factors and can fluctuate from year to year depending on the condition of the state and national economy (Lowry, 2001). When planning a funding request initiative, it is important for the institution to account for how existing institutional subsidies are being utilized and why additional funding is needed for a specific issue. Two questions that should be addressed are whether or not institutional subsidies have been managed well in the past and how the proposed subsidy will be managed in the future.

Strategy 4: Limiting impacts to student aid

Regardless of the initiative for which the institution is seeking funding, the state does not want financial aid or tuition costs for students to be negatively impacted. St. John stresses that student financial aid is too critical to be ignored and that institutions should strategize on ways that maximize how much aid is available to students (St. John, 1991). The reason is that all too often, when appropriations are decreased, tuition increases while student aid programs usually remain unchanged (St. John, 1991). For example, if an institution wanted to receive funding for a new building that would enhance an existing campus facility with wireless internet capabilities, the institution's funding request would, ideally, show state legislators that there are no plans to raise tuition to offset continuing maintenance fees for the new technology. If tuition were to increase, the state would be concerned whether the institution will offset costs by limiting the available financial aid to the extent that attending college becomes more financially difficult for students and their families. According to the St. John model, institutions should provide compelling evidence to the legislature that financial aid will not be adversely affected by the initiative needing funds (St. John, 1991).

Strategy 5: Maintaining effective enrollment management

The last strategy addresses whether the funding request initiative will take into account enrollment management at the institution. Most definitions of enrollment management involve student marketing and recruitment, pricing and financial aid, academic and career advising, academic assistance, institutional research, orientation, and retention (St. John, 1991). As a result, postsecondary institutions will want to show that

the needed funding will take into consideration issues of access while concurrently addressing the complex task of keeping enrollment balanced against both the operational costs of the campus and the quality of programs offered. The requested funds should not lead to accepting additional students if the institution cannot provide the necessities of a quality education. For example, additional faculty to teach, housing opportunities, and the availability of scholarship dollars all may need to be considered when designing the funding request.

COMPONENT 3: Contextual

This component combines both the intervening and exogenous variables that St. John believes can influence appropriation decisions made by the state. These factors include any internal and external variables that could ultimately impact the amount of funding provided to an institution (St. John, 1991). The requesting institution does not have control over these variables. However, higher education administrators should give them consideration when designing and implementing a funding request initiative. Issues that fall into the contextual component, such as the economic condition of the state or competition from other state agencies, are very likely to have some influence on how state funds are allocated.

Intervening variables

According to St. John (1991), intervening factors are usually internal to the state government and often controlled by the legislature. Examples include tax rates and state policy initiatives (Archibald & Feldman, 2006; Hearn & Holdsworth, 2002). The

institution, however, has very little if any control over these variables. For the proposed research, this component of the conceptual framework called for the institution to carefully examine current state policy issues and trends [and consider the implications for their funding request]. Examples of questions that the funding request should account for include: How will the state's policy initiatives impact the request? How does the request compare to other obligations the state has to work with? Does the initiative that needs funding address a specific state need? This component should require higher education administrators to have a working knowledge of the current state legislature.

Exogenous variables

Exogenous variables can impact the funding request process in a similar way to intervening factors. These variables are factors neither the state legislature nor higher education can control (St. John, 1991). Examples of exogenous variables include national economic conditions and the public's current views toward higher education. Although exogenous variables are outside of the control of both the higher education institution and the state legislature, they should be considered when designing and implementing the funding request initiative.

The contextual component, or component 3, calls for higher education administrators to give consideration to intervening and exogenous factors when designing and implementing a funding request. Examples of questions that administrators should address include: How will the public (the taxpayers) react to state funding of the institution's need? What does the future economic outlook for both the state and nation look like? What is the current condition of other state entities that rely on the legislature's

support? How will the project needing funding benefit the state? Each case in this research was examined to determine what, if any, intervening and exogenous factors influenced the design, implementation, and ultimately, the outcome of the funding request.

COMPONENT 4: Passive versus aggressive lobbying

The final component of the conceptual framework involves identifying whether or not the approach used to present the funding request initiative was done in a passive or aggressive manner. This component takes into account Murray's argument that all lobbying, or in this research, funding request initiatives, can be categorized to varying degrees as being presented in either a passive or aggressive manner (Murray, 1976). There are two goals to this component of the framework. The first is to determine whether or not the request that received funding was presented in a more passive manner, such as closely following the states' standard funding request guidelines, or if it was presented more aggressively, such as presenting the request in a less conventional manner than the state would have wanted. The second goal is to determine if the approach used to present the funding request had any correlation to whether or not the needed funding was allocated.

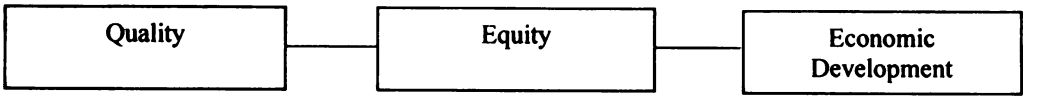
Figure 2.1 is a visual representation of the conceptual framework.

FIGURE 2.1

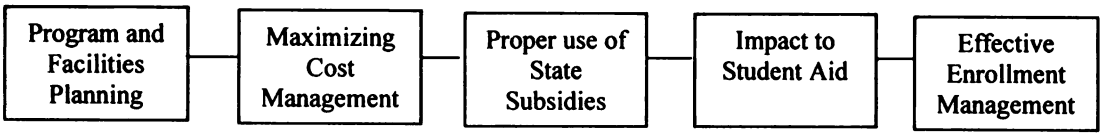
Conceptual Framework

Does the Funding Request Address:

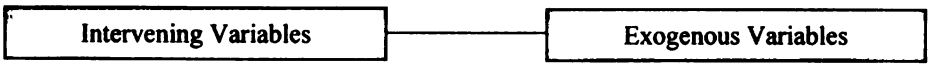
Component 1: Goals and Outcomes



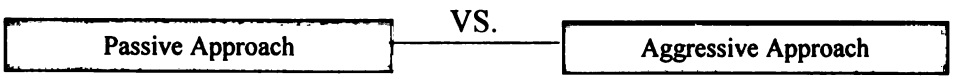
Component 2: Strategies addressing the state's vision for higher education



Component 3: Contextual Factors that Influence Funding



Component 4: How was the Presentation of the Funding Request



The literature review reveals that there has not been much research conducted that specifically analyzes the process of designing and implementing a funding request from higher education to state government. The lack of research in this area of higher education funding emphasizes why a study on how an institution designs and implements a state funding request is needed. The literature on this topic does, however, offer a good overview on the various aspects of the process as well as how government and higher education interact with one another. More specifically, the possible strategies for requesting funds discussed in the literature and how state funding for higher education

can be influenced provides an understanding of the goals states typically have for their colleges and universities. This understanding of state goals for higher education helped to shape the conceptual framework used for the two case studies in this research.

CHAPTER 3

METHODOLOGY

The research followed a qualitative methodology. Taylor and Bogdan (1998) refer to qualitative methodology as research that produces descriptive data in the form of people's own written and descriptive words and observable behavior. For this study, two comparative case study analyses were done. The cases analyzed involved two instances in which Michigan State University designed and implemented a funding request to the state legislature. In one case, Michigan State University received the needed funding; in the other case, it did not. The purpose of this research method is to determine if the case in which funding was received aligned more closely with the components of the conceptual framework than the case that did not receive funding.

According to Merriam, the best way to understand the decisions made by human subjects that affected a given process is through qualitative research (Merriam, 1998). Therefore, I gathered information using two methods: through interviewing individuals who were involved in the process and analyzing relevant documentation on each case. As Merriam points out, qualitative case study analysis is relevant when research deals with people and how those people make sense of their social world and experiences. Whereas quantitative research may examine individual component variables, qualitative research is more effective at clarifying how and why all the components worked together.

The information obtained from the data collection and analysis was used to address two primary research questions as well as a subset of four questions related to question 1. The research questions guiding the study are:

1) **Did the request that received funding align more closely with the conceptual framework than did the request that did not receive funding?**

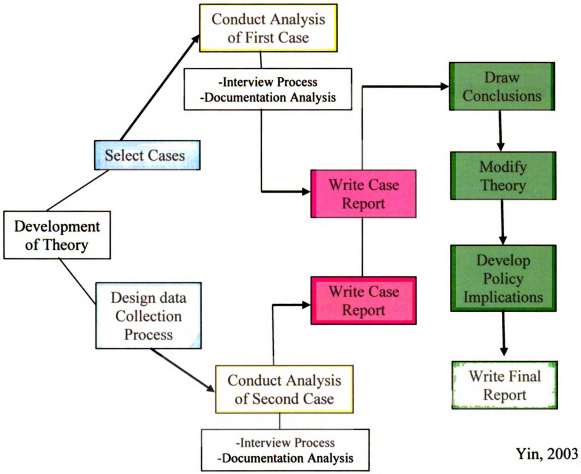
   A. Did the request that received funding align more closely with the goals component of the framework than did the unfunded request?
   B. Did the request that received funding align more closely with the strategies component of the framework than did the unfunded request?
   C. Did the request that received funding align more closely with the contextual component than did the unfunded request?
   D. Was the request that received funding presented in a different manner (passive versus aggressive) than the request that did not receive funding?

2) **Is there evidence that aligning a funding request strategy closely with a model addressing state priorities and goals for higher education may enhance the likelihood of an institution receiving funds?**

Research Design

The research employed Robert Yin's (2003) case study analysis method for examining two separate cases. The research design then applied characteristics of cross-case analysis found in both Gerring (2007) and Merriam (1998). Below, in figure 3.1, is a visual depiction of how Yin presents his method of case study analysis when examining two individual cases.

FIGURE 3.1

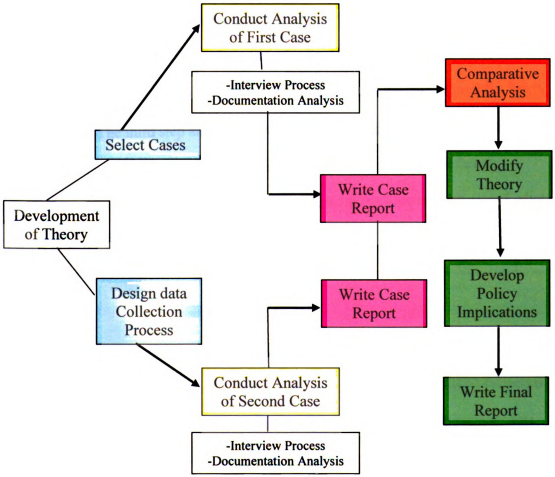


Yin, 2003

In this method, a theory is first developed; then, a method for collecting data is identified, followed by the testing of the theory by comparing and contrasting two separate cases. Each case is selected and analyzed followed by a write-up of the findings. Yin's method calls for examining each case, drawing conclusions from those cases, and modifying the original theory that developed the research study from those conclusions. For this study, I decided to add the cross-case analysis component to draw a better distinction between the two funding requests.

When examining the literature on case study research, many researchers see single case study analysis and cross-case analysis as two separate methodologies. John Gerring argues, however, that the two are actually reliant on each other (Gerring, 2007). His point is that one cannot make a concrete analysis of a single case study without determining how it compares to other cases of a similar nature. I have taken Gerring's approach and added a comparative analysis component to the research design. Below, in Figure 3.2, is what the new design looks like.

FIGURE 3.2



In figure 3.2, the first step after analyzing the cases is to draw conclusions on each one. For this study, the interviews were transcribed for analysis. Using Gerring's methodology, I altered Yin's method so a comparative-analysis component takes the place of the drawing conclusions component. This means that after reviewing the data transcripts and placing them into categories, both cases were compared and contrasted with the conceptual framework using the data analysis method that is discussed later in this chapter.

With the conceptual framework as a guide, I compared how well the two cases aligned with the four conceptual framework components. To start, I examined the goals that the university established for the needed funding to determine if the request addressed each of the three goals stated by St. John (1991). Next, I examined how well the funding request aligned with the five strategies St. John discussed. For example, how many of the strategies were addressed in the designing of each funding request for the state legislature? The third step analyzed how well the funding request accounted for intervening and exogenous variables. The last step examined whether the funding request was presented in a passive or aggressive manner to the state legislature and what influence, if any, this had on receiving the requested funds.

Data Collection

The data collection for each case followed a two-step process. The first step involved reviewing available documentation on the two cases which included the actual funding request submitted to the state, drafts of proposals for the funding request, data provided to the state that supported the requested funding, and notes of conversations and

meetings that shaped the design and implementation of the funding request (see references). Information collected from the documents was placed into categories to determine if the funding requests were designed and implemented in a manner consistent with the components of the conceptual framework. For example, if a document contained information showing that an addition of a new wing to the chemistry building would increase the amount of research and teaching MSU could conduct, that information would be categorized as meeting the quality, economic development, and facilities planning component of the conceptual framework. More on the categorization process is discussed under the data analysis section.

The second step of data collection occurred in the form of person-to-person interviews with individuals from Michigan State University's administration that had knowledge regarding the aspects of the design and implementation of either one or both of the funding request initiatives analyzed in the study. A total of ten individuals were interviewed for this research with all interviews being conducted on the campus of Michigan State University. Not every individual who was interviewed had involvement in both cases. For example, I interviewed the Chairperson of the Chemistry Department, Dr. John McCrakin, because he had a large role in the case involving the Chemistry addition. He did not, however, have any involvement in the case for the BSL-3 Labs at the University Research Containment facility. Seven individuals interviewed had knowledge exclusive to the case that was funded, one individual had knowledge exclusive to the case that went unfunded, and two individuals had knowledge of both cases. Individuals working for the State of Michigan were not interviewed for this

research because they would have only reviewed the request after it was submitted and would not have been involved in the process of developing the funding request.

I contacted all the individuals interviewed for this research. Each individual interviewed had to complete a consent form approved by the Institutional Review Board that would protect their rights as human subjects. The consent form explained to the individuals interviewed the purpose of the research in which they were asked to participate. Each individual interviewed agreed to have their names disclosed in the research findings and for the interviews to be audio taped. All of the interviews were then transcribed. A copy of the consent form used for this research can be found in the appendix B.

Each individual was asked a set of semi-structured, open-ended questions that focused on key variables critical to the funding request process for each case. The point of asking open-ended questions is to allow the individual to elaborate on the process in his or her own words. I chose this method of interview to create an environment in which the interviewer and interviewee are having a conversation on the subject. The interview questions focused on the design of the funding request initiative and the method of implementation. Personal relationships between administrators and state legislatures were not the focus of the interview questions, but I remained aware that this could become a relevant point of interest during the course of the interview. Questions for the interviewees were based on answering the research questions discussed earlier. The information gathered during the interviews was transcribed on a computer for later analysis.

By following this data collection process, I hoped to see to what extent each case aligns with the proposed conceptual framework. Not only did I want to test the contents of the conceptual framework, I also wanted to better understand the approach used in presenting the two funding requests to the state. It was important to select two cases that occurred close in time to each other to maintain as much consistency as possible. For example, the two cases in this research occurred when the individuals interviewed held their same positions at MSU for both cases.

Working with human subjects

Before conducting the interviews, I had the appropriate documentation filed with the Human Research Protection Program at Michigan State University. This must be done when conducting research involving human subjects, which includes person-to-person interviews. The initial application was filed with the Institutional Review Board at Michigan State University on September 18, 2008. The Institutional Review Board approved the study on November 2, 2008. The application was renewed on October 8, 2009. I have also completed a couple of revisions to the interview instrument since the project was initially approved. These revisions were approved by the Institutional Review Board. In addition, I revised my study to include interviews conducted over the telephone and through written responses in the event that a key individual to be interviewed was not available for a person-to-person meeting. A set of my interview questions and a copy of the consent form signed by those participating in interviews are in the appendix A and B.

Data Analysis

Once the data were collected, the process of reviewing and coding the data began. Coding involves bringing together and analyzing all the data related to major themes, ideas, concepts, interpretations, and propositions of the study (Taylor & Bogdan, 1998). Notations were added to relevant points of data as they were collected throughout the document analysis and interviews. Key words that describe, for example, why state funding was needed for a particular project or what benefits would result from funding the project were assigned labels to allow easier access to that information during the next step of analysis.

Following the coding process, key themes that emerged during the analysis of documentation and interview transcripts were categorized into pieces and combined into one master coding sheet representing each case. Categorizing the information provides a good opportunity to determine how much of the data did or did not align with the conceptual framework. Figure 3.3 below provides an example of how information obtained from both the interviews and document analysis looks when categorized.

Figure 3.3

Component 1:
EXAMPLE

	Case #1		Case #2	
Quality	X	Comments: Addition would enhance teaching to provide new technology		Comments:
Equity		Comments:		Comments:
Economic Development	X	Comments: Addition would lead to hiring additional staff for the Chemistry Department thus creating jobs		Comments:
	Alumnus donated a portion of the funding in exchange for having his name placed on the addition. The alum is a former chemistry student at the school.			

As shown in figure 3.3, data collected was placed into a category that matched the conceptual framework. Information not falling into a category matching the conceptual framework was also tracked. Maintaining and analyzing all relevant information from the data collection process is of value when determining how well the conceptual framework helps to distinguish between the request that received funding and the request that did not.

To better explain the analysis process, refer back to the example above in which information from the interviews showed funding was received to add a new wing to the

chemistry building. In the example, it was determined that the funding request initiative addressed the goals of quality (it enhanced research and teaching) and economic development (the possibility that the research would produce more jobs), yet it did not touch on equity. In figure 3.3, the boxes for both quality and economic development were checked. Next to the boxes is a section for comments. This is where I placed any information from the interview that led to the conclusion that an element of the case matched a component of the conceptual framework.

Data from both the document analysis and interviews were analyzed through the lens of the conceptual framework, while data not aligning with the framework were coded and analyzed to determine what, if any, future alterations to the conceptual framework might be needed. Below the section depicted in figure 3.3 is where all relevant data not aligned with the conceptual framework were included. For example, if an influential alumnus wanted to add money to the project with the condition that the new wing be named after him, the information would be coded as having a political influence. Although the conceptual framework did not take into account politically-based motives, the information would still be analyzed as part of the study. The entire process outlined above was followed for all four components of the conceptual framework and for both the case that received funding and the case that did not.

Grouping similar categories together allowed for themes to emerge. Themes essentially condense all of the pieces of data into a set of information understandable to the researcher. This can make the data more manageable when answering the research questions. When discussing a case, two interview subjects may each use a different word to define the same instance. As a result, the two data elements may be placed into

different categories. In analyzing the data, however, it might then be discovered that the categories share common attributes and, therefore, contribute to one emerging theme that may affect the final analysis of the case.

After the information was coded and placed into categories, the next phase of data analysis began. Merriam (1998) mentions that for studies involving multiple cases, two stages of analysis occur. The first is the "within-case" analysis, which involves treating each case as a comprehensive case in and of itself. When the analysis of each case is completed, cross-case analysis begins. Cross-case analysis involves attempting to understand processes and outcomes for each case and how both correlate to the conceptual framework.

During both methods of analysis, the constant-comparative method was used. This method was originally developed by Glaser and Strauss (cited in Merriam, 1998) in 1967. Because it is a basic strategy that is compatible with the concept-building orientation of all qualitative research, it has been adopted by many researchers.
For my research, the constant-comparative method examined the data and constantly compared the case that received funding with the conceptual framework. The process was then repeated with the case that did not receive funding. I was looking to see how much each case did or did not align with the conceptual framework.

Following the comparative analysis component introduced in figure 3.2, the data analysis then returned to following the last three components of Yin's model. These components call for determining what the findings are and what they mean for higher education in general. For my research, a proper interpretation of the findings was needed to address each of the research questions. Yin discussed how determining what the

findings mean can have an impact on the field the research is in. For this study, I wanted to determine if following the steps and strategies consistent with the conceptual framework during the design and implementation of each case distinguished a request receiving the desired funding from one that did not. Longer term, I hope the findings of this research provide a framework for other state-funded institutions to utilize when designing and implementing future funding requests from their state legislature, both in Michigan and nationwide.

Research Setting

The research was conducted at Michigan State University (MSU) and involved two instances in which funds were requested through the Michigan Capital Outlay Funding Process. To have a complete understanding of why the funding was needed for each particular case, it is important to have a thorough knowledge of the overall governing structure of the State of Michigan as well as the mission and demographics of the institution being researched since much of this is taken into consideration when the Michigan State Legislature is evaluating funding requests and allocating resources to colleges and universities. A more detailed review of the research setting follows.

The State of Michigan

There are three branches of government in the state of Michigan. They include the legislative branch, the executive branch, and the judicial branch. The executive branch consists of the state governor, the lieutenant governor, and 19 state departments. Executive power is vested with the governor, who is responsible for the execution of the

laws of the state and appoints members to state boards and commissions (Michigan Legislature, 2006). The lieutenant governor serves as the president of the senate and performs duties requested by the governor (Michigan Legislature, 2006).

While the judicial branch oversees the court systems in the state of Michigan, it is the executive and legislative branches that are most involved with the higher education appropriations process. The legislative branch is critical in determining where appropriations go for higher education. This branch enacts the laws of Michigan, levies taxes, and appropriates funds from money collected for the support of public institutions and the administration of state government; proposes amendments to the state constitution; and can exercise a number of options when presented with legislation proposed by initiatory petitions, including adopting the legislation or offering the voters an alternative (Michigan Legislature, 2006).

The law making power held by the legislative branch is vested in a two-chamber body: the Senate and the House of Representatives. The Senate is comprised of 38 members elected by the qualified electors of each senatorial district (Michigan Legislature, 2006). The House of Representatives consists of 110 members elected by the qualified electors of representative districts (Michigan Legislature, 2006). It is members of these two government branches that serve on the various committees that uphold the special interests of the people of Michigan, including appropriation committees.

There are 15 four-year public universities and 29 two-year community colleges in the state of Michigan (Duderstadt, 2008). These numbers do not take into account the more than 50 independent colleges, universities, and institutes that also exist in the state

(Duderstadt, 2008). In Michigan, public four- year higher education institutions have constitutional autonomy (Bracco, 1997; Coble, 2001; Duderstadt, 2008; Jeffries & Smith-Tyge, 2000). Each of the 15 four-year public universities has its own governing board. The governing boards of Michigan's three research institutions- Michigan State University, the University of Michigan (which oversees the institution's two branch campuses in Dearborn and Flint), and Wayne State University- are comprised of officials elected to those positions by the people of Michigan. The governor appoints officials to the governing boards of the remaining public institutions.

The State Board of Education is the closest Michigan comes to a statewide agency for higher education. The board includes eight members chosen in statewide elections and is designed to serve as the general planning and coordinating body for all of public education, which, in theory, includes higher education (Bracco, 1997; Michigan Legislature, 2006). However, according to a case study by Kathy Reeves Bracco, the State Board of Education actually has very little input or authority over public higher education in Michigan (Bracco, 1997). Many of the decisions for an institution reside with the university's own Board of Trustees or Regents.

As mentioned in the first chapter, the State of Michigan has been decreasing funding for higher education over most of the past decade. Between the years of 2001 and 2007, $300 million had been cut from the higher education budget (Duderstadt, 2008). These cuts in higher education funding have resulted in larger student to faculty ratios and workloads which threaten the quality of education Michigan's higher education institutions can provide (Duderstadt, 2008). James Duderstadt explains in *The Michigan Roadmap Redux* (2008) that these funding cuts come at a time when state officials are

relying on institutions to produce a more highly skilled workforce that will help improve Michigan's struggling economy. However, despite what state officials want, funding cuts have continued for Michigan's public institutions. Duderstadt believes that Michigan's current lawmakers do not understand how investing more in higher education can lead to a healthy state economy long-term, and that public institutions will need to raise tuition to assist in covering costs (Duderstadt, 2008).

Michigan State University

Michigan State University is one of the 15 state-supported universities in Michigan and one of three research-based institutions in the state that includes the University of Michigan in Ann Arbor and Wayne State University. Michigan State University was founded in 1855 and with the support of the Morrill Act in 1862 was established as one of the models for the land-grant institution. The overall purpose of the land-grant institution was to pioneer research in agriculture and the mechanical sciences for the benefit of the State of Michigan and the general public (McCristal, 2004). Over time, Michigan State University has become one of the largest research institutions in the nation, with more than 200 programs offered by 17 degree granting colleges providing education at both the undergraduate and graduate level (McCristal, 2004, MSU Facts).

The main campus of Michigan State University is located in East Lansing, Michigan, which is three miles east of Michigan's Capitol in Lansing. The campus covers 5,200 acres, with 2,100 acres in existing or planned development (MSU Facts). In addition to the main campus, MSU owns approximately 15,000 acres throughout Michigan for agriculture, animal, and forestry research (MSU Facts). According to the

Physical Plant Division at MSU, there are 577 buildings on the main campus, with 83 of these buildings providing instructional or classroom space.

A diverse student population is enrolled at MSU. Students from all 50 states and from approximately 130 countries attend MSU (MSU Facts). As of fall 2009, a total of 47,278 students were enrolled. Of those enrolled students, 36,489 were undergraduates while 10,789 were either graduate or professional students (MSU Facts). In addition, the University employs 4,985 faculty and academic staff, and 6,335 support staff (MSU Facts), and, according to the MSU website, www.msu.edu, has approximately 427,000 living alumni worldwide.

As part of the school's mission for research and outreach, MSU has more than 170 active agreements with international organizations in more than 50 countries (MSU Facts). In the academic year 2008-2009, sponsored research at MSU totaled nearly $405 million. The federal agencies that provided research funding included the National Science Foundation, the United States Department of Health and Human Services, and the United States Department of Agriculture, among others (MSU Facts). In addition to national and international outreach, MSU has extension offerings in all 83 of Michigan's counties. These programs provide practical, university-based education.

Michigan State University has a strong reputation for academics in the United States and around the world. Since 1964, MSU has been a member of the Association of American Universities, a group of higher education institutions regarded as the top research intensive universities in North America (www.aau.edu, MSU Facts). Only 60 schools in the United States and two schools from Canada belong to this group. In 2009, the *U.S. News and World Report* ranked MSU twenty-ninth among U.S. public

universities in its annual report of best colleges and universities (www.usnews.com, MSU Facts). In addition to academic rankings, MSU is recognized as one of the national leaders in study abroad programs among public universities and ranks sixth in the nation for international student enrollment (MSU Facts).

Michigan State University's mission as a land-grant higher education institution reinforces the university's importance to the state of Michigan, the nation, and the world. The university educates a large and diverse population of students. Michigan State University is involved in many research programs and initiatives that are beneficial in a variety of areas. To continue advancing the quality of the programs the university offers, it is critical that MSU have the necessary resources. With MSU being a state-funded university, ensuring that the university always has adequate funding to continue operating at the maximum level becomes essential. Hence, understanding and enhancing the effectiveness of the funding request process is very important to a complex and dynamic higher education institution such as Michigan State University.

CHAPTER 4

CASE FINDINGS AND RESULTS

The research consisted of analyzing two case studies involving separate instances in which a postsecondary institution designed and implemented a request for funding to the state legislature. In one instance, the institution received funding for a particular project, in the other instance it did not. Information was gathered and compared to the components of the study's conceptual framework through a two-step data collection process. The purpose of this comparison is to determine if, and how well, the design and implementation of each funding request aligned with the components of the conceptual framework.

The findings from the documentation analysis and interviews are presented in this chapter following this sequence. First, both cases are presented in detail which includes a brief description of the Michigan Capital Outlay process. Next, the cases are then analyzed and compared to the conceptual framework. Each case will be reviewed individually as a single case study. Then, using the cross-case analysis method discussed in chapter 3, both will be compared to one another to determine which case aligned with more of the components of the conceptual framework. The chapter concludes by answering the studies research questions.

Cases

The cases analyzed for this research involved two instances in which MSU requested funding through the State of Michigan's Capital Outlay funding process for

two specific projects. The Michigan Capital Outlay process is the budgetary and administrative function of state government devoted to planning and financing for the acquisition, construction, renovation, and maintenance of facilities used by a state agency, public university, or community college (Valenzio, 2007). The primary goal of the Michigan Capital Outlay process is to ensure that public dollars are well spent on functional, necessary facilities, even in less than favorable economic times. A university appealing for money through this process is responsible for presenting the state oversight committee with a master plan detailing their facility-based funding needs. The state then uses this master plan when reviewing an institution's funding request to determine the amount of funding the requesting institution will receive. A detailed explanation of the Michigan Capital Outlay process is presented in appendix C.

Michigan State University typically begins preparing for what Capital Outlay projects it will submit funding requests for approximately 2 to 3 years before the requests are actually presented to the state. The Office of Facilities Planning and Space Management has a large part of the responsibility of overseeing the development of funding requests submitted through the Capital Outlay process since the purpose of capital funding is to address needs of state facilities. The Vice President for Governmental Affairs and the Office of Planning and Budgets are often involved with facilitating the process. Both the President of MSU and the Board of Trustees are aware what projects are included on each year's Capital Outlay funding request submittal as the Board of Trustees must approve the projects on the list.

I chose two cases from the Michigan Capital Outlay process because traditionally all 15 public universities in Michigan, community colleges, and other state agencies

submit general funding requests through this process annually. The Michigan Capital Outlay process is universal in the guidelines all state postsecondary institutions and agencies are expected to follow and is confined specifically to state-funded facility maintenance and upgrades. In addition, analyzing two cases which MSU submitted to the Capital Outlay process provides the best opportunity to conduct an accurate comparative case analysis by examining two cases that occurred under similar conditions in both the state economy and the state legislature. For example, analyzing two nearly concurrent funding requests through the Michigan Capital Outlay process increases the probability that the same legislators were serving in the state government when both cases were heard. A gap in time between two specialized funding requests would increase the chances of different legislators hearing each case, making it more difficult to conduct an accurate comparison.

The two cases in this study, the chemistry building addition and the labs at the university containment facility, were selected specifically because they had similar characteristics that would allow for a more accurate comparison. While the project of the chemistry building addition was chosen for this study because it was a project that had been funded, a decision had to be made on an unfunded case to compare it to among other projects MSU was seeking Capital Outlay funds for at the time. One of those projects, which went unfunded, was the construction of a new building for the College of Music. I felt however, that the proposed music building would be difficult to compare with the chemistry building because that funding would be used to promote programs in the arts. The labs were then chosen for comparison with the chemistry building addition because each project addressed facilities that fostered research in the sciences. Of the

other projects MSU was seeking capital funds for during the same time period, most only addressed renovations to a building where both cases chosen for this study addressed the need for an addition to an existing facility.

For this research, one case or funding request analyzed was submitted to the state by MSU in fiscal year 2004-2005. The other case analyzed was submitted to the state by MSU in fiscal year 2005-2006. A fiscal year in the state of Michigan runs from October 1 through September 30. In fiscal year 2004-2005, MSU submitted a request for an addition to the Chemistry Building. MSU received funding for this project, which equaled $20 million dollars. In fiscal year 2005-2006, MSU submitted a request for needed renovations and additional level laboratories to the University Research and Containment Facility, which supports scientific research in areas of large and small animal pathology. The amount of funding requested was approximately $10 million. This funding request was not granted by the state.

Michigan lags far behind when it comes to providing needed state support for academic buildings on campuses (Duderstadt, 2008). Prior to 2005, the State of Michigan had not provided MSU with additional funding for a facility need since fiscal year 1996-1997. In that fiscal year, the construction of the Biomedical Sciences Building was approved for $69.8 million.

The next sections examine how well the cases aligned with the conceptual framework and whether or not aligning with more components of the conceptual framework was related to funding being granted for that case. In addition to introducing the case and identifying those who were interviewed, each case analysis section examines the process for submitting the particular funding request to the state, compares the case

with the conceptual framework, and discusses the outcomes of each case. A cross-case analysis of the two cases is presented after the two individual case analyses.

CASE 1- Addition to the Chemistry Building and HVAC upgrades

The first of the two funding requests analyzed was designated to secure funds for an addition to the existing chemistry building at Michigan State University. According to Michigan State University's Geographic Information System, the chemistry building was originally constructed in 1963 with an area of 311,237 square feet of space or 178,063 net square footage (http://www.gis.msu.edu). The Chemistry Building houses the Chemistry Department and has a combination of laboratory, classroom, and office space. The analysis of the documents revealed that when the funding request was submitted, the chemistry department had 36 faculty members and approximately 66,000 net square feet of laboratory research space, which equals approximately 1,830 net square feet per faculty member. This placed MSU tenth out of eleven when compared to other Big Ten institutions for faculty.

Interview subjects

A total of nine individuals were interviewed about the funding request for this project. The following is a description of those interviewed. All of the participants signed a letter of consent approved by the Institutional Review Board at MSU to take part in the interview and be identified by name. A brief description of each interviewee's job title and role in the funding request is included.

Dr. John McCracken- Dr. McCracken is professor and chairperson in the Department of Chemistry at Michigan State University. Dr. McCracken was responsible for writing the initial funding request proposal, which outlined the problems the department had in undergraduate education, graduate education, and research because of limited space in the facility.

Barbara Kranz- Mrs. Kranz is the current Director of Facility Planning and Space Management at MSU. At the time of this funding request, Mrs. Kranz worked in the department as the Assistant Director. The Office of Facility Planning and Space Management is a unit of the Office of Planning and Budgets. On behalf of the university, the Office of Facilities Planning and Space Management work with the academic units on campus to identify programmatic needs. Then, working with the Provost, the President, Vice President of Finance and Operations, Deans, and other Vice Presidents, identifies which projects should be included on the Capital Outlay list based on university mission and programmatic priority. Mrs. Kranz was involved with assembling all of the information for the funding request, working with the colleges, working with the physical plant on cost issues, and compiling the narrative information that goes to the state.

Dr. Bill Latta- At the time of this funding request, Dr. Latta was the Director of Facility Planning and Space Management within the Office of Planning and Budgets at MSU. In addition to the role that the Office of Facility

Planning and Space Management has in the funding request process, Dr. Latta assists eventual users of a facility that is being renovated or expanded develop their program plans. He coordinated all of MSU funding requests through the Michigan Capital Outlay process.

Steve Webster- Mr. Webster is the Vice President of the Office Governmental Affairs at MSU. He is the primary MSU representative who communicates directly with state government officials. Mr. Webster acts as the liaison between the university and the State of Michigan, providing information to both MSU and the state regarding each other's issues.

Dr. Estelle McGroarty- Dr. McGroarty was the Associate Dean in the College of Natural Sciences at the time of this funding request. She represented the college in discussions related to the design and resources for space-related issues. The Chemistry Department is housed within the College of Natural Sciences.

Lynda Boomer- Lynda Boomer works in the area of Engineering and Architectural Services with the Physical Plant Division at MSU. She is the project manager and liaison for Physical Plant and Architectural Services between the various departments at MSU, Facility Planning and Space Management, and any consultants hired to help with the proposed project.

David Byelich- David Byelich is the Director of Planning and Budgets at MSU. The Office of Planning and Budgets, through the Facility Planning and Space Management Office, is responsible for conducting any staff work that leads to the development of funding requests lists and priorities that are submitted to the State of Michigan.

Dr. Babak Borhan- Dr. Borhan is a Professor in the Department of Chemistry at Michigan State University. He was involved in this funding request as a scientific advisor concerning what would be needed in the addition to the building. Dr. Borhan provided advice on capacity and design of the renovated rooms. He assisted Dr. John McCracken in designing the initial proposal that went to Facility Planning and Space Management and eventually to the State of Michigan.

Jack Mumma- Jack Mumma is the Contract Administrator at MSU within the Department of Campus Planning and Administration. He is involved with reviewing budgets for proposed funding requests and negotiating design agreements for the projects needing funds.

The origin of the funding request

The process for developing this funding request began within the Chemistry Department. The Chairperson for the Department, Dr. John McCracken, expressed his concern about infrastructure needs to the then Provost, Dr. Lou Anna Simon, and the then

Dean of Natural Sciences, Dr. George Laroy. The idea was to have an addition to the chemistry building addressing the department's infrastructure and programmatic needs placed on the Capital Outlay list for submission to the state. As Dr. McCracken, who wrote the initial proposal for the project, explained:

> They (Dr. Simon and Dr. Laroy) were aware of what we wanted and what we had in mind for Capital Outlay, but the details they didn't know. So what I wrote for them was a document that more or less set the background and significance of what we wanted to do.

Dr. Estelle McGroarty, who was serving as Assistant Dean for the College of Natural Sciences at the time of the funding request, explained why funding for this particular project was needed. According to Dr. McGroarty,

> We were seeing, over the prior number of years, an increase in the number of science majors. And this was putting excess pressure on the undergraduate laboratory courses. And there was insufficient space to be able to schedule the students within the space that was presently in the building, and to be able to increase the capacity. Part of the project was to renovate the undergraduate labs to increase the amount of capacity for the undergraduate courses that were experiencing that load. The addition then allowed for a reshuffling of space, of offices, that were in space inside the building that had the significant HVAC capacity for research and teaching labs to be put into an addition that didn't have such a heavy heating ventilation load. And it was much less expensive to move the office spaces and some classrooms that were just recitation type classrooms,

into the addition, freeing up space in the building for the expansion of the undergraduate labs and for future expansion of research labs. But the primary focus in the request to the state was to be able to manage the teaching capacity.

MSU's strategy for developing the funding request

The interviews and analysis of relevant documents provided me with the information necessary to piece together the strategy MSU used to present this case to the state. Early drafts of the funding request documents show that MSU wanted to emphasize the Chemistry Department's need for space and how the project would benefit the state's economy. In terms of additional research space, analysis of the early drafts of the funding request showed two areas in which MSU wanted to build their argument for funding the Chemistry Building addition. The first was that the addition would allow for more students to take chemistry and science courses. The second was that the addition would provide more opportunities to conduct quality research experiments. In the interview with Steve Webster, we discussed how the lack of adequate instructional space was a need MSU wanted to highlight to the State of Michigan.

> First [lack of space] was one of the limiters in instruction here on campus. Particularly in the science and technology areas are the labs. And you can only increase the number of students in those important areas of study to the extent that you have lab space for them to learn in. Those are also the spaces we use for inventions on campus, the research spaces. Chemistry has been and will probably remain a place where we are always short of wet labs. So that was long sought as

a place to grow our capacity, to train, and to do more research. We needed more lab space.

Data on student enrollment in chemistry and other science majors was obtained from the Office of Planning and Budgets at MSU. These data showed the enrollment in chemistry and science-related courses over the years and how projected enrollments from a proposed addition to the Chemistry Building would increase for the Department. These data were used as one of MSU's arguments as to why the state funding was needed, and the information became part of the funding request submitted to the state.

Addressing how the addition to the chemistry building would help Michigan's economy was the second point MSU would emphasize with this funding request. An analysis of the early drafts of the funding request reveals how MSU connected the idea that educating more students in the science and technology fields would lead to a better trained workforce in Michigan. In addition, interviews revealed that MSU asserted that science-related research leading to new innovations would also produce new industry within the state. Steve Webster mentioned in his interview that it was known that Michigan Legislators were more interested in providing funding for projects that would increase the workforce in science and technology based fields. Webster stated:

> And then over the last ten years, they want to know, is it [the project] going to increase your capacity to teach or is it going to increase your capacity to [do] research, which leads to inventions and economic development? But those are really two important goals that the legislature has outlined.

The fact that state legislators were interested in higher education producing a more skilled workforce in science and technology related fields guided the approach MSU would take to designing and implementing the funding request. Concurrently, Michigan Lieutenant Governor, John Cherry, released his commission's report on higher education in Michigan. The Cherry report examined how Michigan needed to address a changing learning environment. One of the points made by the commission was that jobs in the science and technology fields were critical to the growth of Michigan's economy. As evident when reviewing documentation for this case, the funding request for the chemistry building addition was influenced by the timing of the release of the Cherry Commission's report.

Steve Webster also mentioned that at the time of the funding request, the state was particularly interested in funding additions or renovations to existing buildings as opposed to funding construction for brand new facilities. An analysis of early drafts of the proposal shows that MSU wanted to highlight that the requested funds were for a project involving an existing campus building. This strategy was evident when reviewing the actual funding request for the chemistry building addition.

Since the chemistry building was constructed 40 years prior to the time of this funding request, there were many problems with how the building space was allocated. One of the individuals interviewed, Lynda Boomer from Engineering and Architectural Services within the MSU Physical Plant, explained how this led to other problems that would hinder the effectiveness of the building for years to come:

> When it was constructed in the sixties, it [the chemistry building] was a mix of office-lab, office-lab, office-lab. All served by the same air handling system.

This caused a variety of air flow problems over the years. The proposed addition would provide approximately 12,000 net square feet of additional research laboratory space. In addition, 35,000 net square feet of existing space in the building would be renovated. This renovation would accommodate needs in research and teaching laboratories by removing office space that was in close proximity to classroom labs in the proposed addition. One of the complaints faculty members in the Chemistry Department had was being limited when it came to conducting specific types of research because of the building's air handling system. The requested funding would build an addition off the front of the building, move faculty and administrative offices to that addition, and renovate the former office space into more productive laboratory space. Lynda Boomer mentioned how this type of addition would make the building more efficient not only capacity wise, but from the perspective of energy use.

> We fixed a lot with HVAC renovations, but being able to move a big chunk of the office area out to the addition with a separate air handling system, and serve the labs instead with the 100 percent outdoor high energy consuming systems. . . was a great benefit to the building overall; air quality and energy wise.

As a result of the need for a more efficient air handling system, the funding request also took into consideration much needed repairs to specific heating, ventilation, and air conditioning systems, otherwise known as HVAC. Many of these systems were 30 years old and were identified as needing repair through MSU's Just-in-Time maintenance system. More will be discussed on this piece of the funding request later in the analysis.

There is a routine process for a funding request to proceed at MSU. When a need for funding is identified for the Capital Outlay process, the reasoning for this need is presented by the Chairperson in this instance, to the Dean of the College of Natural Science and the Provost. If the Dean and Provost believe the project is needed and should be pursued, the Facility Planning and Space Management Office will then become involved with designing the funding request. Dr. Bill Latta, then Director of Facility Planning and Space Management at the time of the chemistry building project, became part of the process for Capital Outlay support and explained the process for this funding request.

> The Dean has got to say yes, I will support that because it [either] makes sense from a programmatic standpoint or it doesn't. And here are the space implications . . . they got a hold of our office, and so all of us worked together. We came through the process with [the idea] that it [an addition to the chemistry building] made sense to the department; it made sense to the college. The next step was to write up a feasibility proposal. What do you want to do? How do you want to do it? What might it cost?

In this case, Dr. Estelle McGroarty explained that a proposed addition for the chemistry building would have the support it needed from the institution's perspective.

> We were strongly supportive . . . the college was supportive of it; the Dean was supportive of it; the Provost was supportive of it. We were trying to address the needs of the students.

The Office of Facility Planning and Space Management then had to write a funding request that would become part of MSU's Capital Outlay request to the State for that year. This write-up became part of the document that would be submitted to the State Legislature. MSU, as well as the other 15 public higher education institutions and community colleges in Michigan, submit Capital Outlay funding requests annually. The projects or the institution's priorities for those funding requests can change from year to year or remain the same depending on one of two scenarios.

The first scenario that can influence the funding request is the state's priorities for capital projects for a given year. The Vice President of Governmental Affairs, Steve Webster, is in regular contact with State of Michigan officials and legislators. Through his discussions with members of the state government, he gains a broader understanding of what goals the state legislature wants Michigan's higher education institutions to achieve. The Vice President of Governmental Affairs keeps the MSU administration informed of these goals. In the case of the chemistry building addition, the state had been emphasizing that any funding available for capital projects should go towards educating more students in the science fields. This emphasis is reflected in the early drafts of the funding request that Facilities Planning and Space Management had written up with the assistance of administrators in the MSU Physical Plant.

The second scenario depends on what MSU's priorities are. The goals and needs currently facing the university can influence what funding requests are on a Capital Outlay funding list for a given year as well as the priority of that funding request compared to other requests. Feasibility is also an issue, that is, whether or not a project needing funding can be constructed or maintained efficiently. If it is determined that one

proposed project can be constructed and maintained using less of the institution's resources, it is probable the project will take precedence over other less feasible proposed projects. Steve Webster mentioned that difficulties can often arise when determining that one funding request a higher priority than another.

> [It] is a little bit difficult from a campus politics standpoint because it is not as if chemistry is more important than physics . . . or the expansion of the romance languages area.

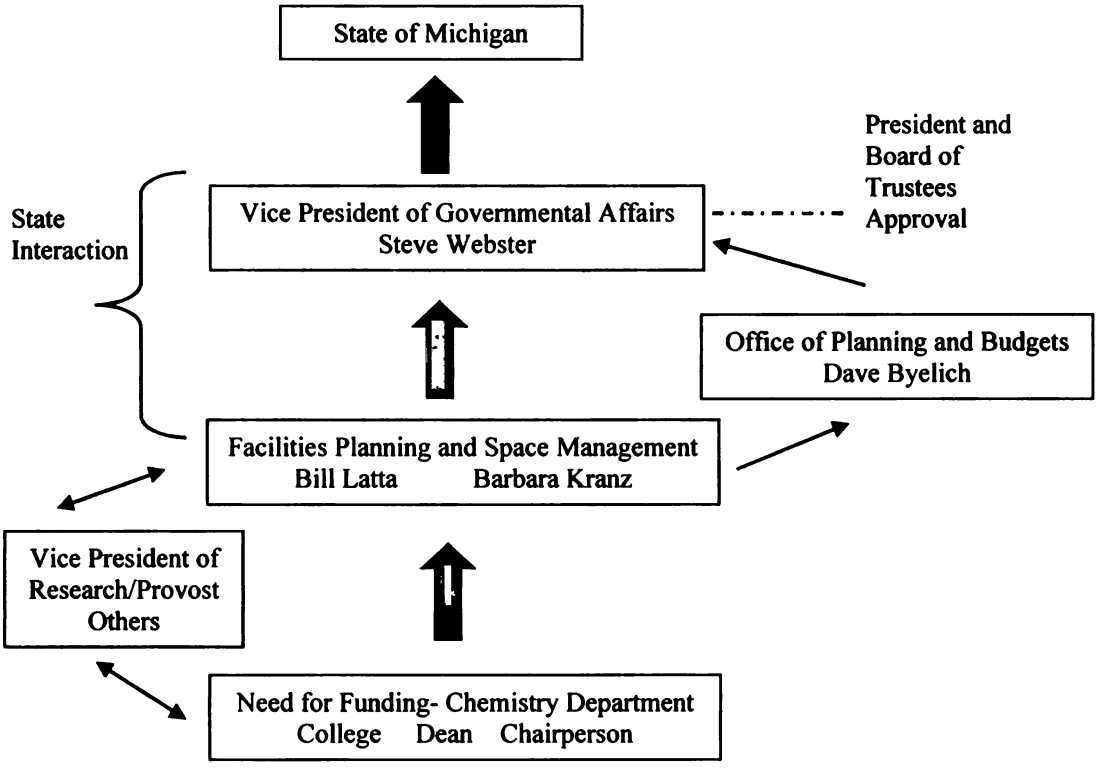
In this case, according to the Capital Outlay information that was sent to the State Legislature, MSU had a variety of funding requests on their Capital Outlay submittal for that year, with the chemistry building addition one of its highest priorities. Steve Webster discussed how the Provost, the Vice President of Governmental Affairs, the Office of Planning and Budgets, and Physical Plant established the chemistry building addition as a higher priority.

> This is what the college says will be accomplished by building this. Does this work? Does it in fact do that? If it's a $40 million dollar project and they are asking $20 million for it, there is a really good chance they [the institution] won't be able to pull it off. So they [university administrators] are trying to discern, one, is it a top priority for the university and two, is it really feasible. So you consult with, at that time it was Bill [Latta] and Barb [Kranz], and Physical Plant...the folks on campus that have to determine if you can even build that [in this instance, the chemistry building addition].

Figure 4.1 below models how the process for designing and implementing the funding request for the Chemistry Building addition.

FIGURE 4.1

CHEMISTRY



As noted earlier, the need for funding the chemistry building addition was established by the Chairperson of the Department, John McCracken. At this point, others, such as the Assistant Dean of the College of Natural Sciences, Dr. Estelle McGroarty, and Professor Barack Borhan were also consulted on what was needed in the addition to the building.

> The way it was designed [when the Chemistry Building was originally constructed] was not probably conducive to the way research is done now; both in

the sense of air handling and research space and lab space. So it has been a problem. One way we identify to free up some space, some research space in the department, was to move some of the classrooms and some of the offices out of the research building into the new building . . . support research in the existing (building).

After the Dean of the College and the Provost acknowledged the project was a high priority need and gave approval to move forward for requesting Capital Outlay funding, the Office of Facility Planning and Space Management became involved with expanding the initial proposal for the funding request. In addition, Lynda Boomer from Engineering and Architectural Services was also included, representing the Physical Plant for the design and feasibility of the project.

Figure 4.1 shows that the MSU Office of Planning and Budgets was also involved with this funding request through MSU's Budget Strategy Committee, where funding requests are prioritized through discussions that can include David Byelich, Director of Planning and Budgets, Steve Webster, Vice President for Governmental Affairs, the Provost, the Vice President for Finance and Operations, and the Office of Facility Planning and Space Management, among others. Steve Webster explained the purpose of this group as discussing issues affecting MSU's budget. At these meetings, projects for funding are also discussed as well.

We sit every week and try to figure out what is new with our university budget. And, there is a session in which we walk through all proposed projects and Bill Latta will say here is one in the Vet School, here is one over in Morrill Hall . . . a

project. And there is just a lot of hashing out of the priorities. And then they will eventually say "now what this year is the legislature most likely to be looking for?" And I'll say "You know, I don't know," but in the last three years they have asked for projects that preserve existing space: replacing the fume hoods in chemistry; modernizing the physics space, or something that takes an existing building and keeps it contemporary and up to date.

The Office of Facility Planning and Space Management, based on the input from the Chemistry Department and feedback from Steve Webster and Dave Byelich, designed the funding request for the addition of the chemistry building that was submitted to the State. As figure 4.1 shows, Steve Webster is continually interacting with state officials and helps guide MSU's funding requests based on his understanding of what these state officials are expecting of Michigan's higher education institutions. In addition, the President and Board of Trustees' members are aware of the need for the project and can provide input on how the funding request should move forward if so desired. According to the State of Michigan's guidelines for submitting funding requests for capital projects, the proposed chemistry building addition followed the appropriate process.

The funding request was designed to convey the message that MSU needed an addition to the Chemistry Building to increase teaching and research capacity in one of the core areas of the science curriculum. MSU argued that doing this would not only enhance the quality of education students would receive when taking chemistry courses, but would also provide long-term benefits to the State of Michigan. The primary benefit addressed in the funding request was how funding for this addition would eventually lead

to a more educated workforce in the science and technology fields and ultimately help with economic development in Michigan.

Analyzing the chemistry building funding request

This section compares the design and implementation of the funding request for the chemistry building addition with the study's conceptual framework presented in figure 2.1. To better understand the analysis, I refer back to the components of the conceptual framework and use portions of the interview transcripts to support or validate a point. The presentation of the analysis is separated by each component of the conceptual framework.

Component 1- Goals

The first component of the conceptual framework addresses three state goals that should be addressed in the funding request process. Those goals include quality, as in enhancing the quality of education; equity, as in providing equal access to higher education for those in the state; and economic development, as in producing an end result that benefits the states' economy. The funding request for the chemistry building addition addressed two of the three goals: quality and economic development.

All nine people interviewed explained that the funding request addressed three issues that would be concerned with quality in education: the need of adequate laboratory space for research, the need to educate a greater population of students, and the need to recruit and retain good faculty for teaching. The funding request also discussed how the addition and renovation of the existing building space could provide

more research laboratories for the Chemistry Department. Dr. Bill Latta elaborated on exactly how an addition to the existing facility could end up providing the needed additional laboratory space.

> We wanted to create an addition that would be largely office and classroom space, not laboratory space, so we could take out of the main building the pieces that were classrooms and offices . . . and put them into the addition. That would . . . . in turn free up space in the building that could be converted for laboratory use Because across the ceiling of each level, or the decks . . . from the first floor all the way up, is where the main ventilation runs were present. We could turn the spaces that were supporting offices into more laboratory space. So not every space on a lab floor was laboratory, some of it was classroom; some of it was offices.

The funding request also presented how additional laboratory space is a benefit to the quality of education a student is receiving. According to Dr. Bill Latta, the funding request answered specific questions as to how this addition benefited the general research community.

> We had to describe, first of all, what benefits it would have to the research community, to research in general. What kind of research could be done, how much of it, how would it increase our capacity? So capacity for research, potential results, both in terms of improving health and improving safety. So it wasn't just so esoteric in that there was an applied piece to all of this.

The funding request noted that by the state funding the addition, $3.6 million of additional research dollars could be generated by faculty in the department. The addition in research dollars would in turn lead to enhanced instruction in the form of conducting different experiments and utilizing current technologies for teaching and engaging students.

The second theme that emerged from the research aligning to the conceptual framework goal of quality was the ability to educate a larger population of students. It was explained in the funding request that the addition would increase the number of students who could take chemistry courses. Many of those interviewed discussed how chemistry courses are a requirement for many majors at MSU, particularly in the science and engineering fields. Lynda Boomer recalled how the proposal that eventually led to the funding request outlined why space issues were a concern in meeting the demand of students needing chemistry courses.

> I just remember they had the statistics of their existing student population, and how many they were able to put through due to the space constraints they had. And this was going to allow them to put through more [students] in a given year. And because basic level chemistry is a required course for many of the other sciences and engineering and those focus areas that the state was looking at, it was imperative that they get these kids through that program in the first couple years. Otherwise they would have to go in summer sessions or extend [the students' time for taking chemistry classes].

Dr. John McCracken and Dr. Barak Borhan emphasized how demand for taking these courses had grown substantially, by 30 percent, in recent years. The funding request took these concerns into account by explaining how funding a building addition would increase the number of students in selected courses from 16 to 24, which would accommodate up to 500 more students a year.

The third theme that emerged in terms of the quality component of the conceptual framework was the recruitment and retention of faculty and students. Although it was not as prominent in the document analysis, recruiting the best faculty was emphasized in several interviews as being a leading benefit of funding the chemistry building addition. According to Barb Kranz, recruiting strong individuals to the institution can have an impact on both research dollars and perception of the academic program.

> When we are competing for [funding], we hear we want the best and the brightest. When our competitors have better facilities, we often hear we can't compete and a lot of times the last negotiating point with a faculty member may very well be they want a lab we cannot provide (the quality of the lab or the size). The same is true if we are trying to recruit someone that already has a research program . . . they want to bring, or have money for grad students as part of their program. They also need space for those folks.

The other goal within the first component that the funding request aligned with was economic development. Economic development came up frequently throughout the documents and interviews. Of the nine individuals interviewed, six specifically discussed how economic development was a major point of emphasis in the design of the funding

request. This aligns with the second of the three goals in the conceptual framework. The common theme from the interviews was how, at the time, the State of Michigan was emphasizing training students in the areas of science and technology. The report from the Cherry Commission on Higher Education discussed why trained students in the sciences and technology fields are needed in Michigan. As Dr. John McCracken recalled, the funding request explained how the addition to the chemistry building would have a positive impact on Michigan's economy.

> Every kid on campus who is involved in math and science is going to take at least a year of chemistry, but most of the time, two years. So it's important to the state's economy that the chemistry department be able to train students at the cutting edge of the field, so that when they go out to try and find jobs, our kids will look better than anyone else in the state.

In addition, Dr. McCracken felt that with the poor condition of Michigan's economy at the time, addressing a need in a science-based facility would enhance the chance that a funding request for the chemistry building addition would be received more favorably by State Legislators than other capital projects.

> I think we did a good job of tying it [the funding request] to economic development and the state's future. I think that resonated with the legislature; to put money into science infrastructure is something that is good to do. I mean, if I were a legislator I [would] much rather do that than build a dorm or a parking ramp. Those are not going to fly, but a science building I think will.

What was noticeable in the funding request was how two of the three goals for the chemistry building addition mentioned earlier were connected to the conceptual framework goal of economic development. In discussing the need for additional research lab space and educating more students, the funding request touched on how doing this could help fill positions at Michigan-based companies, specifically mentioning Dow Chemical and Pfizer. The funding request also explained how students with degrees in the chemical sciences could be contributors to Michigan's economy. For example, the funding request submitted to the state specifically listed that students earning a bachelors' degree in science-related fields are typically employed in laboratories working on product development or analytical testing; that students with masters' degrees are employed in positions managing laboratory scientists working on a manufacturing effort; and students with a Ph.D. in these fields are employed in positions either directing groups of scientists or faculty positions that bring in more research dollars. All of these factors align with the goal of economic development.

The interviews identified three areas in which economic development was addressed in the chemistry building funding request. They include job creation, a more skilled workforce in the areas of science and technology, and research leading to inventions that could benefit Michigan's economy. Particularly in terms of job creation, Bill Latta pointed out that investment in a project like the chemistry building addition not only produces short-term employment opportunities, such as on-site construction, but long-term jobs as well, such as additional faculty and staff.

> We talked in terms of economic development, in terms of numbers of jobs that it [the chemistry building addition] would bring, certainly in the construction

periods, but moreover in the kinds of jobs it would bring for faculty, staff, and students to the laboratories because our faculty hire graduate students in the laboratory and in some cases, bring in undergraduate students. They certainly have to have staff and technicians.

Although the funding request aligned with the conceptual framework goals of quality education and economic development, neither the analysis nor the interviews produced enough information to align the funding request strategy with the goal of equity. It could be argued that increasing student capacity in chemistry could be coded as equity, although, if one looks at what St. John (1991) says about equity, the emphasis is more on reaching a diverse population of students, meaning students that would not have attended MSU or studied chemistry otherwise. The requested funding for the chemistry building addition would help increase both facility space and capacity of students taking chemistry courses who are already attending MSU. These are students that would most likely have taken the courses eventually, yet the addition allowed them to take these courses in a manner that would move them through their degree programs more efficiently. Based on the evidence, one must conclude that the funding request for the chemistry building addition does not align with goal of equity in the conceptual framework.

Component 2- Institutional strategies

The next component of the conceptual framework examines a set of five strategies higher education institutions should be employing with state funds. The state wants to

know that by granting funding for a requested project the funding will be utilized in the most efficient and effective way. The areas the five strategies should be addressing include 1) effective program and facility planning; 2) appropriate cost management; 3) proper use of state subsidies; 4) impact on student aid; and 5) managing enrollment effectively. The funding request for the chemistry building addition addressed four of the five strategies. The only strategy that was not addressed in the document analysis and interviews was impact to student aid.

All nine people interviewed explained in a variety of ways how the funding request addressed the strategy of effective program and facility planning, primarily by emphasizing how the addition of space would enhance research and teaching opportunities. Many of the same themes that were coded as quality education in the goals component addressed the strategies MSU had to utilize for emphasizing program and facility needs. For example, adding space for research and teaching purposes would enhance the quality of education MSU offers. This would align with the strategy of effective program and facility planning.

In terms of program and facility planning, the funding request explained how increasing capacity provides more opportunities for students to take chemistry classes in a timely manner. The interview with Dave Byelich, Director of the Office of Planning and Budgets, reinforced how the chemistry building addition would double the capacity for students to work in the teaching and research labs.

> If you look in some of the rehabbed areas of the chemistry building that were developed as a result of this, you will find that the lab space for undergraduate students in those are up to 48 students rather than 24, and so we have some

operating efficiencies. Now everything else is rarely that stark, but the operating efficiencies as well as the research space for faculty members is a key area in [making funding request] decisions.

Dr. John McCracken discussed how the new classroom configurations created by the addition would address safety concerns and allow students to conduct more sophisticated experiments:

> By having the classroom [with] a modern layout where the hoods are dispersed around the classroom, we are actually able to make a safer environment. And that has allowed us to do more sophisticated experiments.

According to Dr. McCracken and the actual funding request document submitted to the state, the addition would allow for better utilization of the Chemistry Department's classroom and office spaces that did not require a specialized air handling system. Dr. McCracken stated:

> The addition project allowed us to move all of our functions that didn't involve sophisticated air handling into an office building, and that freed up 15,000 square feet of space that can be used for research once we start getting it remodeled.

From a program perspective, Jack Mumma, Contract Administrator at MSU, discussed how at the time of the funding request, the Chemistry Department had been emphasizing organic chemistry, and how funding for this project would allow for better teaching and research in this area. Mumma explained:

> We have been emphasizing organic chemistry as one of our key components to the university, constantly upgrading the building, creating more lab space, or upgrading lab space. That is a big piece of that [emphasizing organic chemistry]... getting better air handling in the system for fume hoods. As regulatory requirements and productivity of faculty has increased, those [facility] demands have also gone up.

The second strategy the funding request aligned with was effective cost management. As explained in chapter two, the state does not want to provide funding for a project that will increase the overall costs of the institutions' day-to-day operations. Six of the individuals interviewed discussed how the funding request explained why costs would be managed with the chemistry building addition. For example, some of those interviewed indicated that a project that addresses needs within an already existing facility has a better chance of receiving funding than, for example, constructing a brand new facility for additional research space. Through his discussions with government officials, Steve Webster was aware that legislators had been recently asking that funding requests address renovations in existing facilities. Webster commented:

> A third [outcome of the project] that legislators are more and more interested in is whether or not the funding helps with existing laboratories. So by adding an addition to the chemistry labs [the question is] does it make the existing labs more beneficial or extend the life of those labs? In other words, is there a multiplier effect? So you try and explain that as best you can.

In addition, replacing existing Heating, Ventilation, and Air Conditioning systems, or HVAC, also was presented as effectively managing operational costs. In one of the early drafts of the funding requests, it was noted that replacing existing HVAC equipment would lead to annual energy savings of $91,000. Funding for the chemistry building addition would also be used to replace chillers in three additional campus building, including Erickson Hall, Regional Chilled Water Plant 1, and Fee Hall.

What makes including the HVAC project with the chemistry building addition unique is that it also addressed the strategy of properly using state subsidies by addressing existing infrastructure issues through funding the addition. Three of those interviewed explained this part of the funding request as making proper use of state subsidies more than just effective cost management. The conceptual framework explains this strategy as accounting for how existing institutional subsidies are being utilized and why additional funding is needed for infrastructure efficiency.

The last strategy addressed by the funding request was effective management of student enrollment. This strategy involves enrollment balanced with both the operational costs of the campus and the quality of programs offered. Of those interviewed, six indicated that the funding request addressed the issue of effective enrollment management. In the early drafts, the funding request addressed how the current chemistry building limited student access, meaning the capacity to teach those students. The funding request examined specific courses that were required for undergraduate study that were consistently over enrolled because the classroom space was utilized to capacity. In many instances, students had to put off taking a required class in a later

semester or in a later year. Dr. Estelle McGroarty, elaborated on some of the enrollment issues at the time:

> We had a lot of data indicating that we were running those labs until ten o'clock at night, four and a half days [a week], because we had to have change over on Friday afternoons. And we were even filling up labs in the summer because students couldn't get into the lab courses during the academic year. And the other thing we provided was the increase in the number of science majors. All science majors had to take at least one year of chemistry laboratory classes. And so the data was rather obvious and that [data] was in the report that went [to the state].

The final draft of the funding request discussed how the chemistry building addition would not only provide additional instructional space to teach students but would also triple the number of students who could be accommodated by the increased research lab space. The funding request also mentioned how, as a result of the addition, the new instructional space would be equipped with the latest technology for teaching and conducting experiments.

Managing enrollment, along with effective facility and program planning, are the strategies discussed in the most detail during data collection. And, as with the strategy of effective facility and program planning, the enrollment management strategy relates too many of the same factors identified in the goals component of the framework for quality education.

The two areas the funding request aligned with in the first component are education quality and economic development. In the second component, the design of

the funding request aligned with four of the five strategies the state would like postsecondary institutions to employ; the only strategy that the funding request did not align with was impact on student aid. Through both the document analysis and interviews, nothing regarding impact on student aid was identified.

Component 3- Intervening and exogenous variables

The next two components of the conceptual framework concern the implementation of the funding request for the chemistry building addition. The first of these two components involves intervening and exogenous factors that can influence the funding request. According to Edward St. John (1991), intervening factors are those that are controlled by the state. In theory, an institution could benefit by designing its funding request with these intervening factors in mind. St. John (1991) explains exogenous factors as those that can influence state funding but are outside the control of the state. Like intervening factors, in theory, an institution should account for these factors when designing a funding request.

Eight individuals interviewed identified three intervening variables that influenced the funding request for the chemistry building addition. Those three intervening factors included the 1) report of Michigan Lieutenant Governor John Cherry's Commission on Higher education, 2) the Governor of Michigan's executive order that all Capital Outlay projects had to be LEED certifiable, and 3) a release of Capital Outlay funds for specific projects for the states' public higher education institutions.

The first intervening factor involved the Cherry Commission report on Michigan higher education. In 2004, the Governor of Michigan challenged legislators to address a global revolution in learning and new skills development by creating a set of ideas that would help transform the state's economy. Higher education would play a big role in this process. The Cherry Commission was formed with 41 members comprised of four work groups. The purpose of these groups was to develop ideas that would transform Michigan's higher education system in a way that would better prepare students to contribute to Michigan's changing economy. The areas of higher education the work groups focused on included expanding participation, increasing degree completion, and maximizing economic benefits (Cherry Commission, 2004). The underlying goal of the Commission was to develop strategies that would double the number of Michigan residents with degrees and other postsecondary credentials over the next 10 years (Cherry Commission, 2004).

The work groups developed 19 recommendations that would increase the number of people in the state of Michigan with a postsecondary degree. Dr. John McCracken noted that the Cherry Commission recommendations helped shape the funding request for Chemistry since it was addressing a need critical to Michigan's growth.

> [At] the suggestion of Barb Kranz, I read the Cherry report and directed our goals to align with the goals of the Cherry report; when somebody gives you guidance like that, you don't ignore it.

The second intervening factor was an executive order from Michigan Governor Jennifer Granholm that all Capital Outlay projects must be LEED certified. LEED stands

for Leadership in Energy and Environmental Design and emphasizes constructing energy efficient facilities. Lynda Boomer mentioned that at the time of the request, MSU was already reviewing how its construction standards could match those of the U.S. Green Building Council. As a result, she believed the chemistry building funding request was received more favorably by the state.

> I think that they were pleased that we were registering it with the U.S. Green Building Council just so that they would have that experience as well, because at that time it was rather new. It's not anymore, especially since the Governor did come out with an executive order that all Capital Outlay projects would [need to] be LEED certifiable.

The third intervening factor influencing the funding request was the release of state funds for capital outlay projects. This came about at the time the chemistry building addition was becoming a higher priority for MSU. Dave Byelich explained that these funds became available through a bonding authority the state was working with for capital funds.

> The state typically works with a bonding authority for public buildings for Capital Outlay. That bonding authority then has a maximum debt obligation that is statutorily set, so you tend to watch that state bonding authority cap. And when there is room between the cap and the present level of state commitments, then that means the state can take on more projects. And so you continue to watch how they allocate that additional room . . . between higher education, community colleges, or corrections, or whatever.

There were no exogenous factors that were identified as having any influence on the design and implementation of the funding request for the chemistry building addition. Therefore, the funding request only aligned with intervening variables within this component of the conceptual framework.

Component 4- Passive versus aggressive lobbying

The last component of the conceptual framework used to analyze the funding request examines how the funding request was presented to the state. As presented in chapter two, this component concerns whether passive or aggressive lobbying was employed to advance the funding request to the state legislature. Using the criteria that define both passive and aggressive lobbying in chapter two, one can conclude that the funding request for the chemistry building addition was presented to the state in a passive manner. All individuals interviewed for the case confirmed this by providing details on how the funding request was submitted to the state.

Figure 4.1 displays how the funding request to the state was designed and implemented by MSU. MSU followed normal procedure in presenting the funding request for the chemistry building addition. The funding request was submitted following the state guidelines for submitting Capital Outlay requests. MSU provided documentation as to what the project was, why it was needed, and what other means for funding the project had been pursued. Through his regular meetings with state officials, Steve Webster continued to emphasize the important funding needs of MSU, which included the chemistry building addition. In addition, representatives from MSU met

periodically with the Joint Capital Outlay subcommittee to discuss projects that needed funding. There were two requirements that the state of Michigan had for submitting this funding request through the Capital Outlay request and, according to Bill Latta, those requirements were met.

> Before it goes down to the state of Michigan, the state of Michigan requires two things. They want to be sure that the trustees support the plan, and there is a sign off from them. Second, that the plan is part of the overall campus master plan.

There was no evidence that MSU used any aggressive lobbying techniques with the funding request for the chemistry building addition. Some examples of aggressive lobbying are creating a grass roots effort in support of a need or utilizing media outlets so a need is consistently publicized. According to all of those interviewed, neither of these or any other aggressive lobbying techniques were used when submitting the funding request for the chemistry building addition. Dave Byelich pointed out that in the early 1980s, MSU used a more aggressive approach that got outside groups involved in the funding request process for the communication arts building, but that form of fund seeking is now used more sparingly.

Outcome of the funding request for the chemistry building

Figure 4.2, below, shows how the funding request for the chemistry building addition aligned with the study's conceptual framework. The content of figure 4.2 is based on the information collected through document analysis and interviews.

FIGURE 4.2

Chemistry Building Addition	Align w/ Framework
Component 1	
Quality	X
Equity	
Economic Development	X
Component 2	
Facility and Program Planning	X
Effective Cost Management	X
Proper Use of State Subsidies	X
Impact to Student Aid	
Effective Enrollment Management	X
Component 3	
Intervening Variables	X
Exogenous Variables	
Component 4	
Passive	X
Aggressive	

The first two components of the conceptual framework focus more on the content of the funding request, whereas the last two components focus more on implementation. The funding request aligned with two of the three goals- quality education and economic development- in the first component. In the second component, the funding request aligned with four of the five strategies. The strategies addressed in the funding request process are effective program and facility planning, effective cost management, appropriate use of state subsidies, and effective management of student enrollment. Impact on student aid was not addressed in the funding request.

The next two components of the conceptual framework focus more on the implementation and presentation of the funding request. Figure 4.2 show that intervening factors played a role in the funding request for the chemistry building addition. Also shown in figure 4.2, based on the data collected, is that the funding request was presented in a passive manner as opposed to an aggressive manner.

The state provided $20 million in funding for the chemistry building addition. Although most of those interviewed felt that the funding request for the chemistry building addition was designed and implemented very well, those who had more knowledge of the actual implementation of the funding request to the state, specifically Dr. Bill Latta, Barb Kranz, Dave Byelich, and Steve Webster, concluded intervening factors were the reason why this project was funded. As Bill Latta recalled, early in 2005, the state of Michigan informed the 15 public higher education institutions that there would be money available for Capital Outlay projects for the year and wanted to know each institutions' priority, given a specific funding (or dollar) amount.

> Well, as I recall, we received a call in December or January at one point saying that the state of Michigan found that they would be able to make available to us a certain number of dollars in the sciences area. "What is our highest priority," in a simple fashion, this was it [chemistry building addition].

I asked Dr. Latta why MSU received the specific amount of funding it did. To the best of his recollection, the state followed an historical pattern in providing a certain percentage of the total amount of available funding to those institutions that would receive it.

So, why did we get $20 million? Because when they took a look at the full amount of money available, and looked at the requests across all 15 public universities, not community colleges, but the colleges and universities, the 15 publics; they [the 15 public institutions] seem to get the same percentage each time the funds were distributed.

Dave Byelich further explained more on how the funding request fit into what the state was providing and how the decision was made to emphasize that project as opposed to others.

We had a list, as I recall, of maybe 10 different items. And we got the call, through Steve Webster, the governmental affairs vice president, to me saying, "OK, we have X amount of dollars. We don't know what the match is going to be required. The more match the better our chances. Kathy Lindahl (Assistant Vice President for Finance and Operations) and I sat down, and we looked it over, and we gave them, I believe two projects that added up to the subtotal that we had in mind. One was chemistry and one was the cooling area [chillers]. And, while all of the analytics had gone on prior to that time to prioritize the ten or twelve projects [on that year's Capital Outlay funding request] the actual selection was done here.

Both Steve Webster and Barb Kranz indicated that the state had specific parameters around which these funds would be released, and the funding request for the

chemistry building addition addressed those. According to Steve Webster, addressing Michigan's workforce was important to those in the legislature. Webster observed,

> In the chemistry building, they said you got $20 million dollars. Do you have anything that you can explain would be or would serve to meet shortfalls in the workforce? And we said "all of the science and technology areas, for which chemistry is one of the fundamental pieces of the curriculum."

Barb Kranz also discussed that the project that state would give funding for had to meet the goals of the state, which at that time included job creation. Ms. Kranz also said that since the state was providing Capital Outlay funds, it was important that the funding request was one that appeared on MSU's Capital Outlay list.

> And again, as I recall, the state was trying to create jobs and help the economy. So they identified roughly how much money would be available, then, asked institutions for their top project within the amount that was likely to be available. The one thing you don't want to do is come up with a completely different project when they come forth with money.

The funding request for the chemistry building addition received the needed state funds for the project to be completed. Understanding that the funding request aligned with the majority of the conceptual framework, an early assumption could be made that following the framework factored into this request receiving the needed funds. However, the fact that the state came forward with a set amount of funding, and provided the parameters of what types of projects this funding was for, leads to the conclusion that

intervening variables played a larger than anticipated role in the funding request for the chemistry building addition being granted.

The next section analyzes the case that did not receive funding.

CASE 2- Addition of Biological Level 3 Research Laboratories

The second case to be analyzed was also a funding request submitted through the Michigan Capital Outlay Process. This case involved a funding request for new renovations to the University Research Containment facility that would add bio-safety level 3 research laboratories. This type of laboratory allows for research in areas that are of a severely hazardous nature. Currently, MSU has the capability to conduct bio-safety level 2 research. According to Michigan State University's Geographic Information System, the University Research Containment Facility was originally constructed in 1993 with 66,198 square feet of space. An additional 23,389 square feet of space was added in 1995 (http://www.gis.msu.edu). The facility is located on the south campus of Michigan State University, an area that is considered remote to the main campus. In writing the analysis of the funding request for the addition of bio-safety level 3 laboratories to the University Research Containment Facility, I will refer to the facility as BSL-3 labs.

Interview subjects

I interviewed three people involved with or had knowledge of the funding request for this project. These were the only individuals at MSU who were involved with developing the funding request for the BSL- 3 labs that were available for an interview. I had initially contacted three additional people for interviews who were no longer at MSU.

However, each one of these individuals informed me that they did not have or remember enough information regarding the funding request process for the BSL-3 labs to be interviewed. Those individuals not interviewed referred me to one of the three people who did participate in the study.

The following is a description of these people, all of whom signed a letter of consent approved by the Institutional Review Board at MSU. They agreed to take part in the interview and to be identified by name. A brief description of each interviewee's job title and role in the funding request is included.

Dr. John Baker At the time of this funding request, Dr. Baker was the Associate Dean for the College of Veterinary Medicine. The College of Veterinary Medicine had a particular interest in constructing this type of laboratory for research in animal pathology. Dr. Baker was the lead person for the college working with the Office of Facility Planning and Space Management in developing the initial plans for the project that would become part of the funding request.

Barbara Kranz Mrs. Kranz is the current Director of Facility Planning and Space Management at MSU. At the time of this funding request, Mrs. Kranz worked in the department as the Assistant Director. The Office of Facility Planning and Space Management is a unit of the Office of Planning and Budgets. Mrs. Kranz helped gather the needed information and assisted in developing the written funding request for the Michigan Capital Outlay process.

Dr. Bill Latta At the time of this funding request, Dr. Latta was the Director of Facility Planning and Space Management within the Office of Planning and Budgets at MSU. In addition to the roles that the Office of Facility Planning and Space Management have in the funding request process, Dr. Latta coordinated all of MSU's funding requests through the Michigan Capital Outlay process. For this project, Dr. Latta met with the Associate Dean of the College of Veterinary Medicine (Dr. John Baker) and developed the actual funding request that went to the State of Michigan.

The origin of the funding request

The process of developing the funding request for the BSL-3 labs began as a need for the research community at MSU, specifically in the area of animal pathology. This need began to materialize following the events of September 11, 2001. As Dr. John Baker recalls, the threat of bioterrorism was a concern and having facilities with the ability to conduct BSL-3 research for homeland security was a priority of the United States Department of Homeland Security.

The Department of Homeland Security started to have these center grants in a variety of areas- some computer security and things like that. But one that was coming forward [was], I think the actual title of it was foreign animal disease and cyanotic disease, something along that line. So there was a competition to bring a homeland security center here.

According to Dr. Baker, MSU had originally partnered with other institutions in a joint effort to bid for government funding for building a Homeland Security Center. This center would have led to additional research dollars in areas of bio and agro-terrorism. Eventually, the funding for the center went to another university; however, there were some people at MSU, particularly in the College of Veterinary Medicine, who felt the capability to conduct BSL-3 research would still benefit the university. For one, it would allow MSU to compete for grant money, and two, it would allow MSU to conduct research in areas related to animal and plant pathology that could not otherwise be conducted due to inadequate facilities. As Dr. John Baker explained it:

> I think we realized that one of the weak links was that we didn't have [a facility], although we had the BSL [at lesser levels] capability as laboratory space, and we had the new diagnostic lab, we didn't have the capability we needed to do the [BSL-3] animal related research. See most of that research would end up being done at a federal laboratory out in Iowa, because we didn't have the capabilities of doing it.

Bill Latta, who at the time of the funding request was the Director of Facility Planning and Space Management at MSU, elaborated further on why constructing BSL-3 labs was important to MSU.

> We planned for those because we don't have smaller, good Biological Level 3 safety [labs] . . . pathology kinds of spaces to work in; laboratory spaces to work in for something that is non-lab animal [research] that's more of tissue samples.

When we looked at this [project], we said, "We need labs where we can bring tissues and toxic materials and so forth to work on."

The College of Veterinary Medicine took the lead on developing a proposal for the funding request. Dr. John Baker met with a small group of individuals that had both a knowledge and interest in BSL-3 research. In addition to that meeting, Dr. Baker worked with the Office of Facility Planning and Space Management at MSU, which included Bill Latta and Barb Kranz. It was at this point that consultants Lord, Ack, and Sargent from Atlanta Georgia were brought in to help MSU consider how feasible a BSL-3 laboratory would be to construct. Dr. John Baker discussed the consultants' involvement with the proposal for the project.

They came to campus multiple times and met before we signed a contract with them. We met with them and told them what we were thinking, so they assisted us in helping to crystallize what we wanted to do.

At the time, MSU already had worked with smaller modular labs similar in size to a small BSL-3 lab. That experience was referenced when analyzing the different scenarios of how these labs could be constructed. Bill Latta explained how, with the help of the hired consultants, the process for developing a proposal for the project was developed.

We even had a footprint; we had even looked at some ways in which we could do this with modular laboratory spaces. In fact, we talked about locating this adjacent to the Diagnostics Lab for Animal Population and Health. So we have

narrative; we have a footprint; we have some idea of what the buildings' sizes should be. And the costs we looked at, [we] even did this in sort of a modular fashion, because we already have the experience out there [at the facility] with one module right now, that was very small, that is all fixed up with the right kinds of support systems. And so we had planned for a certain number of modules; we cost them; we had a proposal into the state for what all this would cost. We were ready to build it if the state turned around and said look, "we can come up with the money, here is the money make it happen." We had enough information to go on.

The decision was made within the Office of Facility Planning and Space Management and with MSU's budget strategy committee to include this proposed project as part of MSU's Capital Outlay funding request for 2005-2006. Both the interviews and document analysis provided insight into MSU's strategy in presenting the funding request for the BSL-3 labs to the state legislature.

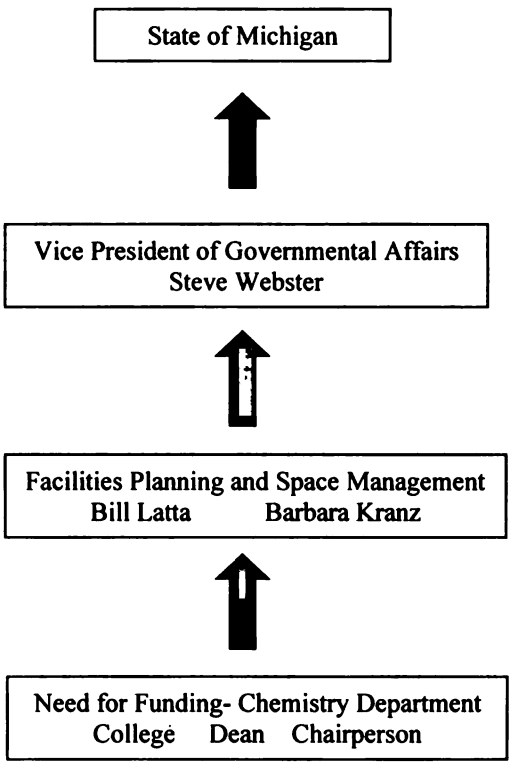
MSU's strategy for developing the funding request

It was evident through the data collection process that not a lot of strategizing went into presenting this funding request to the state. There was a very small contingent of people who were involved in getting this funding request on the Capital Outlay list that went to the State of Michigan in this particular year. The process for getting this funding request on the Capital Outlay list followed general MSU procedures. However, very few people were involved with making this funding request a higher priority at the time of

submission. Figure 4.3 displays how the process took effect for the BSL-3 funding request.

FIGURE 4.3

BSL-3 LABS



The need for funding originated with the College of Veterinary Medicine and was championed by the associate dean. Dr. John Baker was hopeful that researchers in the area of plant pathology (in the College of Natural Science) would eventually make use of the facility and, possibly, win grant money in the area of Plant and Soil Sciences research. An initial proposal for the project was presented to Bill Latta and Barbara Kranz at the Office of Facility Planning and Space Management. With the assistance of

consultants, a full proposal to construct the BSL-3 labs at the University Research Containment facility was developed. The request was brought to the attention of Steve Webster, Vice President of Governmental Affairs at MSU, as one of multiple projects for which MSU was seeking capital funds.

During the interviews for this study, two themes emerged that indicated the strategy MSU would use to emphasize the importance of the BSL-3 labs in the funding request. Dr. John Baker mentioned the federal government's burgeoning emphasis on homeland security in the aftermath of September 11, 2001, as a reason having a facility of this nature should be a priority. Bill Latta and Barb Kranz discussed issues related space to conduct research in the area of animal pathology, which might eventually translate into economic growth. Barb Kranz mentioned that quality research not only leads to more money for the university, but also for the state.

> So we would often talk about the potential for increased research bringing more dollars to the university, then people have more dollars to spend within the state or in the city. We might have more grad students; again, that contributes [to] a more vibrant economy.

When analyzing the actual funding request for the BSL-3 labs however, no mention of homeland security was present. The actual funding request focused on how much space the project would create as well as a brief description as to what types of research could be conducted within these labs. Nonetheless, the funding request for the BSL-3 labs was listed as one of the higher priorities on the Capital Outlay funding request presented to the state that year. After a thorough analysis of the funding request

process for the BSL-3 labs, I was able to categorize the data collected and analyze it against the study's conceptual framework.

Analyzing the funding request for the labs

This section compares the design and implementation of the funding request for the BSL-3 labs at the University Research Containment Facility to the study's conceptual framework. To better understand the analysis, I refer back to the components of the conceptual framework and use portions of the interview transcripts to support or validate a point.

Component 1- Goals

Component one of the conceptual framework addressed three state goals for higher education that should be accounted for in the funding request process. These goals include quality, as in enhancing the quality of education; equity, as in providing equal access to higher education for those in the state; and economic development, as in producing an end result that benefits the state's economy. The funding request for the BSL-3 labs did not align with any of the three goals from the framework's first component.

When it came to the goal of quality education, all three people interviewed on this funding request primarily discussed issues of quality research rather than educating students. The interviewees explained that the BSL-3 project could equate to growth in research opportunities for MSU. According to both Dr. John Baker and Bill Latta, furthering research in the area of animal and plant pathology was a direction multiple

colleges at MSU, including the College of Veterinary Medicine and the College of Agriculture and Natural Resources, wanted to move toward. Having facilities equipped to further research in this area would help MSU compete for more grants as well as help MSU to attract stronger faculty. Bill Latta discussed why addressing facility needs was vital for expanding research in more than just one department on campus.

> The idea was we could do biological level 3 safety research in [the new] facility because of the safety requirements for "shower-in shower-out," having clean areas versus dirty areas, and separating ventilation systems, and walkways. We planned for that kind of space because we thought our programs were moving that way both in the College of Agriculture and Natural Resources, the animal sciences area, and the veterinary medicine area. Our pathology studies were moving in the direction where we needed space to support them.

While it could be argued that enhancing research opportunities complies with the goal of quality education, Dr. John Baker mentioned in his interviews that students would not be involved with the type of research conducted in these labs. Furthermore, the driving force behind building the BSL-3 labs was to better compete for research dollars as opposed to teaching students. Using these labs for any sort of teaching was not discussed in the interviews, the consultant design plan for the facility, or the actual funding request. Therefore, it was determined that the funding request for the BSL-3 labs was not aligned to the goal of quality education.

The goals of equity and economic development were also not addressed in this funding request. Although both Bill Latta and Barb Kranz mentioned how constructing

and operating a BSL-3 facility would produce jobs and research opportunities in the state, Dr. John Baker disagreed and felt that economic development was not one of the primary goals in presenting this request. In addition, the actual funding request submitted to the state does not include a description of how this project would help economic development in the state.

Component 2- Institutional strategies

The second component of the conceptual framework examines a set of five strategies higher education institutions should be employing with the funds the state provides. The state wants to know that funding granted for a requested project will be utilized in the most efficient and effective way possible. The areas the five strategies should be addressing include 1) effective program and facility planning, 2) appropriate cost management, 3) proper use of state subsidies, 4) impacts on student aid, and 5) managing enrollment effectively. The funding request for the BSL-3 labs at University Research Containment Facility addressed only one of the five strategies- effective program and facility planning.

All three people interviewed about the BSL-3 labs mentioned how the funding request addressed the strategy of effective program and facility planning. Bill Latta discussed how the need for adequate facilities could be a benefit when it came to competing for grants. Bill Latta stated:

> Those spaces [BSL-3 labs] are working with things that are related to animal health diseases, like bovine tuberculosis. Chronic wasting disease is looked at there. There really wasn't enough [BSL space on campus] for research grants that

we felt we could obtain and compete for. If we have the infrastructure, we are in a much better position for our faculty to compete for the grants. Because they can then say that we got the kind of space needed to support getting this work done. And that's why we planned it.

Dr. John Baker stated that not having the adequate facilities hindered MSU from a research perspective.

There were some benefits [in conducting pathology research] that were facing us as a research institution that we couldn't do because we didn't have the facilities.

The majority of detail in the actual funding request discussed how much space these labs would provide MSU for research and what type of research could be conducted in them. In addition, the proposal drafted with the help of the consultants focused specifically on facility planning issues.

The strategies in component 2 of the conceptual framework that were not addressed in this funding request included appropriate cost management, proper use of state subsidies, impact on student aid, and effective enrollment management. One could speculate that with the proposal only addressing one of the strategies in component 2, the university did not present a strong enough case to win state support for the BSL-3 labs.

Component 3- Intervening and exogenous variables

The next two components of the conceptual framework concern the actual implementation of the funding request to the State of Michigan for the BSL-3 labs at the

University Research Containment facility. The first of these two components involves intervening and exogenous variables that can influence the funding request. According to Edward St. John (1991), intervening variables are those that are controlled by the state, while exogenous factors as those that can influence state funding yet are outside state control. This component of the framework calls for higher education administrators to consider both intervening and exogenous variables when developing and presenting a funding request.

There are two examples of exogenous variables that were under consideration when this funding request was designed and implemented. The first example involved having a research facility that met the federal regulations required to conduct BSL-3 level research. Dr. John Baker discussed how after September 11, 2001, the threat of bioterrorism had prompted the federal government to provide grant money for research in areas of homeland security. To qualify for these grants, an institution would have to meet specific code requirements with their research-based facilities.

> There are federal regulations that are beyond our control . . . there are certain ways you [have to] run these places, and certain . . . requirements you have to meet to basically be certified. You couldn't put a double wide out there and start doing BSL-3 [research] . . . There are standards you have to meet to, to do this.

The other exogenous variable related to this funding request involved conducting research in areas of animal pathology that were critical to Michigan's animal population at the time. For example, the threat of Bovine Tuberculosis, a disease affecting animals, had become a concern in Michigan at the time of the funding request, especially with the

State's large deer and cow population. MSU did not have the space capacity to conduct research in this area with larger animals. Dr. John Baker described how this was one of the primary reasons MSU wanted BSL-3 labs;

> I would say the biggest driver in this initially would have been Bovine Tuberculosis, wanting to actually do some cattle and deer-type research. You know there were some very basic questions that needed to be answered: Can cattle move it [the disease] to deer? Can deer move it to cattle? It was research driven in that sense.

Both Bill Latta and Dr. John Baker mentioned that having the BSL-3 labs would allow MSU to both compete for grant money and address research needs that were critical to the state of Michigan. The actual funding request mentions that constructing BSL-3 labs would help MSU meet code requirements for state and federal government funding agencies as well as allow MSU to participate in research programs vital to the animal and agriculture industry in Michigan.

Apparently, there were no intervening variables considered in designing and implementing this funding request. The funding request therefore considered only with exogenous variables within this component of the conceptual framework.

Component 4- Passive versus aggressive lobbying

The last component of the conceptual framework for the research analyzes how aggressively the funding request was presented to the state. This component is concerned with whether passive or aggressive lobbying was employed to advance the funding

request. Using the criteria to define passive and aggressive lobbying in chapter two, one can conclude that the funding request for the BSL-3 Labs at the University Research Containment Facility was presented to the state in a passive manner. This was pretty much confirmed by the fact that the funding request was only submitted to the state in the Capital Outlay funding request process and was never pursued in any other manner. According to all three individuals interviewed for this case, there were no other outside agencies brought in to lobby for this project on MSU's behalf.

Outcome of the funding request for the BSL-3 labs

Figure 4.4, below shows, how the funding request for the BSL-3 labs at the University Research Containment Facility aligned with the study's conceptual framework. The content of figure 4.4 is based on the information collected through the document analysis and interviews.

FIGURE 4.4

Component 1	
Quality	
Equity	
Economic Development	
Component 2	
Facility and Program Planning	X
Effective Cost Management	
Proper Use of State Subsidies	
Impact to Student Aid	
Effective Enrollment Management	
Component 3	
Intervening Variables	
Exogenous Variables	X
Component 4	
Passive	X
Aggressive	

As figure 4.4 reports, the funding request for the BSL-3 Labs did not align with any goals in component 1 and only one strategy in component 2 of the conceptual framework. Figure 4.4 also shows exogenous factors were considered with this funding request. As indicated in component 4, the funding request was presented to the state in a passive manner.

The funding for the BSL-3 labs was not granted. After analyzing this funding request, two reasons as to why this project was not funded emerge. First, it can be argued that since the funding request did not align closely with the first two components of the conceptual framework, the request itself was not designed effectively and had little

chance of succeeding. This may have contributed to this project receiving little attention from state officials and, in some instance, MSU administrators.

Second, external factors that MSU could not plan for had too great a negative impact on the BSL-3 project being funded. One example of these factors was the poor economic conditions in Michigan at the time of the funding request. As the result of a weak national economy, the State of Michigan was struggling financially and was selective when providing appropriations to higher education around the time of this funding request. Both Bill Latta and Barb Kranz stated they believed this was why Michigan would not provide capital funds to higher education institutions for that year. Bill Latta elaborated that a weak national economy negatively impacts the state's ability to provide adequate funding for state programs and agencies, including higher education;

> The funding requests are always affected by what the state is able to borrow and pay back, because they sell bonds to raise the money necessary for us to build the projects. And their loan capacity is an issue here. And the economy of the state affects that loan capacity as rated by people on Wall Street and other places. And so that clearly is not fully in our [the state of Michigan's] control because the loaning capacity of the State of Michigan addresses all branches of government and not just the colleges and universities. So, that is partially out of our [the state of Michigan's] control. Probably that is the biggest part that is out of [the state of Michigan's] control.

In addition, the amount of costs and trained professionals required to maintain a facility conducting research with highly contaminated substances may have influenced

why MSU did not pursuing the funding request further. John Baker mentioned that highly trained staff people are needed to work with the type of research done in BSL-3 labs. Additionally, there may not always be enough ongoing research, for example, research on specific tissue samples, to warrant operating a BSL-3 on a continuous basis. As Dr. John Baker explained;

> You have to have a professionally trained staff. And the other thing that comes into consideration is whether these facilities will be fully utilized? Now, if you ask the faculty if we need this stuff, they will absolutely tell you yes. But you have to also take into consideration whether they will keep it populated, because you may have to have an engineer on sight and a group of very well trained veterinary technician types to do the animal handling and the [animal] husbandry. And, if you don't have anything in there, you have high maintenance and high cost for labor.

As a result, and while still a priority, the BSL-3 labs were not the highest priority for MSU at that time. Both Bill Latta and Barb Kranz specifically mentioned that had there been funds available, the project probably would have gone forward, though that ended up not being the case. Barb Kranz stated;

> My recollection, the reason that it didn't go forward [is] in terms of dollars available from the state. They [dollars] are limited. So we [then] look at our priorities.

Bill Latta added;

> I am not sure where it sat on our priority list. I think there were some that were higher.

When reviewing the actual funding request that went to the state, the BSL-3 labs are listed second in terms of priority for projects that MSU wanted for Capital Outlay funding. While the BSL-3 labs were a top priority for the College of Veterinary Medicine, the university as a whole had other projects prioritized higher, specifically, the desired construction of a new building for the College of Music.

According to those interviewed, the funding request for the BSL-3 labs did not go very far beyond just being presented to the state as part of MSU's annual Capital Outlay submittals. Usually there are further discussions between university administrators and state officials to emphasize the priority of the funding request. This did not happen in this case. At the time this funding request was presented to the State of Michigan, there simply was not enough state funding available to address all of MSU's priorities. Adding BSL-3 labs to the university research containment facility would have addressed a research need and allowed MSU to compete for federal grants. However, it would not have educated more students because students could not conduct biological level-3 type of research. Likewise, such limited and specialized research would most likely not lead to economic development within the state. This may explain why MSU did not pursue this specific funding request very far, as evident by the fact that the Capital Outlay documentation submitted to the state on this project is worded very vaguely and has little information describing the project state funding would support.

Cross Case Analysis

The next step in the research is to conduct a comparative analysis of both cases. The goal in this step is to determine if the funding request that was fulfilled aligned more with the conceptual framework than the funding request that was not. As discussed in chapter three, each case was analyzed using John Yin's method for single case analysis (2003). After each case was analyzed individually, John Gerring's cross-case analysis method (2007) was applied to determine if the funded case aligned more closely with the conceptual framework than the unfunded.

Figure 4.5 displays a comparison of the two cases as each aligns with the conceptual framework.

FIGURE 4.5

Component 1		
Quality	X	
Equity		
Economic Development	X	
Component 2		
Facility and Program Planning	X	X
Effective Cost Management	X	
Proper Use of State Subsidies	X	
Impact to Student Aid		
Effective Enrollment Management	X	
Component 3		
Intervening Variables	X	
Exogenous Variables		X
Component 4		
Passive	X	X
Aggressive		

The following section examines both the funded case and the unfunded case as they relate to each of the four components of the conceptual framework. Each component is discussed in the order it is presented in figure 4.5. A final analysis of the cross-case comparison is then presented.

Component 1- Goals

The first component of the conceptual framework emphasizes how well the funding request addressed three goals that the framework suggests are state priorities when it considers allocations to higher education. These goals are quality, equity, and

economic development. The funding request for the chemistry building addition addressed two of the three goals in component 1, aligning with the quality education and economic development goals. The goal of equity was not addressed. The funding request for the BSL-3 Labs did not address any of the three goals in component one. One possible explanation for this is that the funding request for the BSL-3 labs focused mainly on how the project would enhance research opportunities as opposed to supporting a quality education. In comparison, the funding request for the chemistry building addition focused on how the project could help educate more students effectively as well as produce a highly trained workforce that could lead to a stronger Michigan economy. As shown in figure 4.5, the funding request for the chemistry building addition aligned more with component 1 of the conceptual framework than did the funding request for the BSL-3 lab.

Component 2- Institutional strategies

Component 2 of the conceptual framework includes five strategies that legislators should consider when they are allocating funds to higher education. The funding request for the chemistry building addition took into account four of these five strategies, with impact on student aid being the only strategy not addressed. The funding request for the BSL-3 labs only addressed one of the five strategies- effective facility and program planning. Referring to figure 4.5, it is clear that the funding request for the chemistry building addition aligned more with component 2 of the conceptual framework than did the funding request for the BSL-3 labs.

Component 3- Intervening and exogenous variables

Component 3 examines whether intervening and exogenous variables are considered as part of the funding request process. Intervening variables are those that have an influence on state funding but are controllable by the state. The funding request for the chemistry building addition took into account intervening variables while the funding request for the BSL-3 labs did not. For the chemistry building addition, the funding request was influenced by the fact that the state wanted higher education to graduate more students in science and technology fields, which was emphasized by the Cherry Commission's report on higher education. That funding request addressed how the addition would contribute more graduates in those fields as well as benefit Michigan's economy; in other words, the proposal aligned closely with state priorities.

Exogenous variables are those that are out of the state's control. Only the funding request for BSL-3 labs considered exogenous variables in the funding request process. The funding request was influenced by the need for a facility that meets federal code requirements to allow MSU to better compete for grant funding, especially at a time when the federal government was awarding grants for research that would benefit homeland security. The funding request submitted to the state specifically mentions that meeting code requirements of the state and federal governments requires establishing BSL-3 labs at the University Research Containment Facility. In addition, the funding request states that having a BSL-3 research facility will enable MSU to participate in research important to the animal agriculture industry in Michigan as well as compete for state and federal grants in the area of animal pathology.

As presented in figure 4.5, the funding request for the chemistry building addition considered intervening variables being considered while the funding request for the BSL-3 labs addressed exogenous variables.

Component 4- Passive versus aggressive lobbying

The last component of the conceptual framework considers how the funding request was presented to the state legislature. As presented earlier in Chapter 2, this component classifies lobbying, or in this instance funding request initiatives, as being presented to the state legislature in either a passive or aggressive manner. Both funding requests were presented in a passive manner. Each one followed the normal guidelines required for submitting funding requests to the state through the Michigan Capital Outlay process. In neither instance were any aggressive methods employed, such as hiring outside lobbyists or using media outlets to advance the funding request. As presented in figure 4.5, each funding request aligned with the passive category in component 4.

Answering the Research Questions

There are two primary research questions presented in chapter 1 that I hoped to answer by conducting this study. I present each question and answer below and will discuss their implications for practice in chapter 5.

1) **Did the request that received funding align more closely with the conceptual framework than did the request that did not receive funding?**

After doing a cross-case analysis of the two case studies and comparing them component by component, it is clear that the funding request for the chemistry building addition, the one that received funding, aligned more closely with the conceptual framework than did the funding request for the BSL-3 labs, which did not receive funding. The set of sub-questions relating to this research question examines how each case aligned with each component of the framework.

A. Did the request that received funding align more closely with the goals component of the framework than did the unfunded request?

The funding request for the chemistry building addition aligned with two of the three goals in the goals component- quality education and economic development. The funding request for the BSL-3 labs did not align with any of the goals in this component. Therefore, the funding request that received funding, the chemistry building addition, aligned more closely with the goals component of the framework than did the unfunded BSL-3 labs request.

B. Did the request that received funding align more closely with the strategies component of the framework than did the unfunded request?

The funding request for the chemistry building addition addressed four of the five strategies in this component of the framework. Those strategies were effective program and facility planning, effective cost management, proper use of state subsidies, and

effective enrollment management. The only strategy not addressed in this funding request was managing the impact to student aid.

The funding request for the BSL-3 labs addressed only one of the five strategies in this component. The strategy this funding request addressed was effective program and facility planning. Hence, the funding request that received funding, the chemistry building addition, aligned more closely with the strategies component of the framework than did the funding request that did not receive funding, the BSL-3 labs.

C. Did the request that received funding align more closely with the contextual component of the framework than did the unfunded request?

This question asks if the request that received funding aligned more closely with the contextual component of the model by accounting for intervening and exogenous variables to a larger extent than did the request that did not receive funding. The funding request for the chemistry building addition accounted for intervening variables, specifically, the Cherry Commission's report on higher education and an executive order by Michigan's governor that all capital projects be LEED certifiable. The funding request for the BSL-3 labs accounted for exogenous variables, specifically the need to meet federal regulations to conduct highly sensitive research. Therefore, the funding request that received funding did not align more closely with the contextual component of the framework, as both funding requests equally addressed only one element of this component.

D. Was the request that received funding presented in a different manner (passive versus aggressive) than the request that did not receive funding?

Both funding requests were presented in a passive, rather than an aggressive, manner. As a result, a conclusion cannot be drawn on whether one method of presenting the funding request was more effective than the other (in terms of passive versus aggressive).

2) **Is there evidence that a funding request strategy that aligns closely with a model addressing state priorities and goals for higher education may enhance the likelihood of an institution receiving funds?**

Based primarily on the findings from the two cases studied in this research, there is evidence to suggest that designing and implementing a funding request based on a model addressing specific state priorities and goals can help to increase an institution's likelihood of receiving the requested funds. The funding request for the chemistry building addition, which received funding, did align with more of the components of the conceptual framework than did the funding request for the BSL-3 labs, which did not receive funding.

Overall, the funding request for the chemistry building addition aligned much more with the conceptual framework than did the funding request for the BSL-3 labs. However, the data analysis revealed that external factors within the environment played a larger role in the outcomes of both cases than the original framework suggested. For this

reason, the conceptual framework needs to be restructured to place more emphasis on intervening and exogenous variables. A modified conceptual framework, a discussion on what the research findings mean, and the implications of this research for policy and practice are discussed in more detail in the next chapter.

CHAPTER 5

DISCUSSION AND IMPLICATIONS

The purpose of this research was to better understand the process by which a higher education institution designs and implements a request for funding from the state government. Specifically, the study examined whether a model of the funding request process helps to distinguish between a request that did receive funding from a request that does not receive funding. It is important to emphasize that although both case studies examined two instances where MSU requested funds for two specific projects through the Michigan Capital Outlay process, the study was designed to examine the process by which higher education seeks state funding overall. The study and the research findings are intended to provide more insight to the overall process of higher education seeking state funding beyond the example of the capital outlay process.

This chapter discusses the research findings and considers the implications of the research for higher education. The chapter begins with a brief summary of the research and the study's findings. Next, how the findings relate to the literature review presented in Chapter 2 is discussed. This is followed with a discussion of the limitations of the research. From here I discuss the implications this research has for practice in higher education. I conclude with a discussion on what this study suggests for future research in the field.

Summary of the Research

The study consisted of a comparative analysis of two cases where a public postsecondary institution, Michigan State University (MSU), requested funds from the state government of Michigan through the Michigan Capital Outlay process. Both projects involved additions to existing campus facilities that emphasized research and education in science-related fields. In one case, MSU received state Capital Outlay funding for an addition to the chemistry building. In the other case, MSU did not receive the requested funding to add BSL-3 laboratories to the university research containment facility. The study focused on the design and implementation of each funding request from MSU to the State of Michigan.

From a review of literature relevant to state funding for higher education, I developed a conceptual framework to examine how a higher education funding request to a state legislature is designed and implemented. The conceptual framework borrowed from the works of individuals who have analyzed state higher education funding, particularly the work of Edward St. John. The framework consisted of four key components. The first two components relate to how the funding request is designed and are concerned with goals and strategies that legislators typically want their state's postsecondary institutions to address through the requested public funding. The next two components account for the manner in which the request for funding is presented to the state. The first of these components calls for higher education administrators to consider both intervening variables; those factors controlled by the state but not the institution; and exogenous variables; those factors outside of the control of both the institution and the state when submitting a funding request to the state. The other component examines

whether the funding request was presented to the state in a passive or aggressive manner, as defined by Murray (1976).

One inquiry that guided the research concerned whether funding was more likely to be allocated if the institution designed and implemented a request in a manner consistent with the components of the conceptual framework. The assumption was that the more a funding request aligned with the components of the conceptual framework, the better the chances of the state providing the needed funding.

I was able to determine how well the design and implementation of the two MSU funding requests aligned with the conceptual framework by collecting data on each of the cases through document analysis and interviews with individuals involved in the funding requests. Ten individuals were interviewed concerning the two cases with all interviews taking place on the campus of Michigan State University. Each interview participant had some involvement in either one or both of the funding requests. Documents that were analyzed for this research included the funding requests submitted to the state and preliminary drafts of those funding requests.

The first research question asked if the conceptual framework aligned more closely with the request that received funding than the request that did not receive funding. An analysis of the data collected determined that the funding request for the chemistry building addition, the case that received funding, aligned with two of the three goals in component one and addressed four of the five strategies in component two of the conceptual framework; in contrast, the BSL-3 labs, the case that did not receive funding, aligned with none of the goals in component one and addressed only one of the five strategies in component two of the conceptual framework. The analysis also determined

that the funding request for the chemistry building addition accounted for intervening variables while the BSL-3 labs accounted for exogenous variables. Both funding requests were presented to the state legislature in a passive manner. Information obtained through interviews, however, revealed that the outcomes of each case could be attributed more to economic factors in Michigan's environment than their alignment with the components of the framework.

Relating the Findings to the Literature

By conducting this study, I wanted to determine if following a model based on perceived state goals for higher education would enhance an institution's chances of receiving additional state funds. Although the research determined that the case receiving funding aligned with more elements of the conceptual framework than did the unfunded case, a direct relationship is not established between following the framework and the outcome of the two cases. The findings of the study indicate that conditions outside the control of a postsecondary institution, particularly the condition of Michigan's economy, seem to have had more influence on the outcome of a funding request than the original framework acknowledged.

Economic conditions

It is clear from those interviewed that the economic conditions within the state of Michigan had more influence on how the two cases turned out than did any other factor. These conditions were external influences outside of the control of both MSU and the state of Michigan. Although, component three of the conceptual framework calls for

institutions to consider intervening and exogenous variables in the funding request, the information collected from the interviews makes it evident that more consideration needs to be given to these intervening and exogenous variables than originally thought based on the initial version of the conceptual framework. These variables, which include economic conditions, act as an overarching factor, not just as an equal element on a list several variables.

As discussed in the review of literature, from the year 2000 forward, higher education has had to continue to operate through trying fiscal times (Hearn & Holdsworth, 2002; Coble, 2001). This is particularly true in the state of Michigan where the research took place. Public financial support for higher education is directly related to the general condition of a state's economy, which influences state tax capacity and the availability of revenues (Layzell & Lyddon, 1990; Zumeta, 2007, Lowry, 2001). According to the study's conceptual framework, the national economy would be considered an exogenous variable outside of the control of the institution or the state legislature (St. John, 1991). It is interesting that even though the economic conditions in Michigan influenced the outcome of each case, the way each case was influenced differed.

For the chemistry building addition, the request that received funding, the condition of the Michigan economy at the time prompted calls from the state to educate more students in the sciences and technical fields. The assumption was that more individuals trained in these fields would lead to innovations and job creation in these areas while keeping graduates in Michigan after completing their degrees. This idea was advanced in a report on higher education in Michigan chaired by Lieutenant Governor

John Cherry (Cherry Commission, 2004). In a response to this report, MSU tailored its funding request to address the goals put forward by the Cherry Commission report.

In the case of the chemistry building addition, the conditions of Michigan's economy actually helped support the funding request. Although impacting the funding request indirectly, economic conditions stimulated the state to challenge its postsecondary institutions to emphasize educating more students in areas that would be beneficial to Michigan's economic development. Having an understanding of these intervening factors, MSU was able to design this funding request to specifically meet the state's goals for higher education at that time. As a result, MSU placed more emphasis on this funding request than others at the time because of the belief that this project could be funded. When money for Capital Outlay became available, MSU was able to present its case with confidence that its request would be funded.

The condition of Michigan's economy also played a significant role in the outcome of the funding request for the BSL-3 labs at the university research containment facility, the case that was not funded. Whereas the funding request for the chemistry building emphasized how the state's funding would lead to economic development, it is clear from the interviews and document analysis that the funding request for the BSL-3 labs did not give attention to presenting how this project would help with economic development. As prior studies have shown, there is a relationship between state funding and economic conditions (Lowry, 2001). Not addressing how the BSL-3 labs would contribute to growing Michigan's economy in the funding request did not help this project's chances of moving forward.

In addition to Michigan's poor economy at the time, the fact that the state of Michigan had provided money for capital projects to some of the fifteen public universities the prior year provided little chance for the BSL-3 labs to be funded. Although receiving funding for this project was important for the College of Veterinary Medicine, the condition of the state's economy and the commitments to previously funded projects provided little confidence among the MSU administration that this project would be funded through the Capital Outlay process. As a result, MSU did not continue to pursue this case as it did with the chemistry building addition. Other than the initial funding request for that years' annual Capital Outlay submittal, MSU did not take any additional steps to receive appropriations for this project. Incidentally, no Capital Outlay funds were provided to any institution that year.

The larger role of outside influences

The research demonstrated that factors outside of the institution's control must be given more attention in the funding request process than the conceptual framework indicated. While the goals and strategies components of the conceptual framework dealt more with the design of the funding request, the components concerned with intervening and exogenous factors and passive and aggressive lobbying, focus both on the design and implementation of the funding request. In particular, the component concerned with intervening and exogenous factors calls for administrators to take into consideration any factors outside of the institution's control as defined by St. John and prepare the funding request accordingly (St. John, 1991). For example, it was determined that the funding request for the chemistry building addition did take intervening factors into consideration,

specifically following the guidance of the Cherry report and the Michigan Capital Outlay instructions (Valenzio, 2007; Cherry Commission, 2004). The research overall revealed that intervening and exogenous factors are not equal to the other components of the framework and these overarching factors should be given attention at the beginning and throughout the funding request process.

The literature on state funding for higher education discusses some of the other factors that can have an impact on public funding that are not addressed adequately within the conceptual framework. Competition for funding from other state agencies is one area that higher education should give more attention to in the beginning stages of the funding request process. Examples of other sectors relying on the same state funds as higher education include Medicaid, corrections, and K - 12 education (Hossler, Lund, Ramin, Westfall, & Irish, 1997; Katsinas, 2005). For example, understanding what other state agencies had received Capital Outlay funding in recent years may have led to MSU developing the two funding requests quite differently.

Additional factors discussed in the state funding for higher education literature that can come into play in the funding request process include how the governing structure of a state's higher education system impacts the appropriations process (Jeffries & Smith-Tyge, 2000), the role of funding formulas in developing a funding request (Heran, & Holdsworth, 2002; Layzell, 2007; McKeown, 1996), and if a state, such as Michigan, imposes term limits which would have key legislators entering and exiting the process quite frequently (Leubensdorf, 2006; Rupert, 2001). Although these factors did not have an obvious role in the two cases examined in this study, they can be examples of variables external to the institution's control that are not specifically identified in the

framework. Such external variables should be considered when developing a funding request

Presentation of the funding request

One area that needs more research in future studies involves the nature of the lobbying effort that goes into requesting state funds. This component of the study's framework examines whether the funding request was presented in a passive or aggressive manner (McGrath, 2005; Murray, 1976). In this study, both cases were presented in a passive manner, meaning that each followed the standard guidelines for submitting a request for Capital Outlay funds without using any special outside influences. Examples of outside influence include utilizing a grassroots approach to inform constituents of the funding need, media campaigns, or a counteractive lobbying effort targeting legislators who are openly against the group's cause (Austin-Smith & Wright, 1994; Scholzman & Tierney 1986, 185 as cited in Cook, 1998). With both cases being presented in a passive manner, it was difficult to determine whether one method of presenting a funding request was more effective than the other. More case studies in this area would need to be done to understand any differences between using a passive approach versus an aggressive approach when requesting state funds.

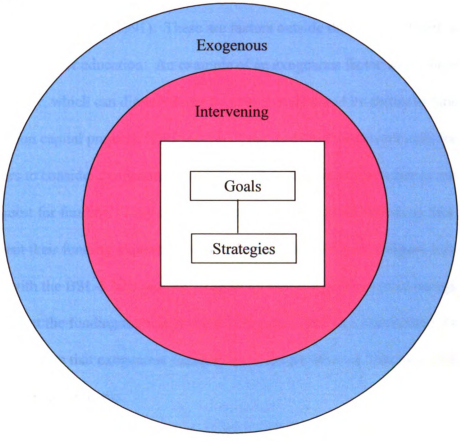
Changes to the framework

Ideally, the conceptual framework tested in this study could be used by higher education administrators as a model for developing and implementing a funding request to a state's legislature. The results of the research show that the case that received the

funding did align more closely with the study's conceptual framework, particularly the goals and strategies components, than did the unfunded case. Additionally, the findings revealed that intervening and exogenous factors play a much larger role in the funding request process than the original conceptual framework indicated. The research indicates that intervening and exogenous variables should be considered and addressed before and during the process of designing and implementing a funding request.

Although the original framework was conceived as being somewhat static, the findings from the case study indicate that the model needs to be dynamic and responsive to the changing state funding environment. Figure 5.1 below displays a modified framework using the original components, but rearranging how the components should be considered when designing and implementing a funding request initiative.

FIGURE 5.1



Instead of being presented as a checklist, where all elements have essentially equal importance or influence in the funding request process, the revised framework for requesting state funds calls for higher education administrators to be more aware of the external environment and design their strategy accordingly. With the original framework there was no sequential order by which the four components should be considered. In contrast, the revised framework does consider a specific component, exogenous factors, first before moving to the others. The following paragraphs explain each component of the modified framework, the order in which they are to be considered, and why.

The blue circle on the outside of the model represents exogenous factors as defined by Edward St. John (1991). These are factors outside the control of both state government and higher education. An example of an exogenous factor would be the national economy, which can directly impact a state's budget and its ability to fund higher education capital projects. This section of the modified framework calls for administrators to consider exogenous factors first when deciding on whether or not to pursue a request for funding. They should also consider exogenous factors as they design and implement their funding request strategy. This process is shown in figure 5.2. As was evident with the BSL-3 labs request, exogenous factors alone can have enough of an impact to prevent the funding request process from proceeding to a conclusion. The framework illustrates that exogenous variables have the potential to influence all aspects of the funding request process.

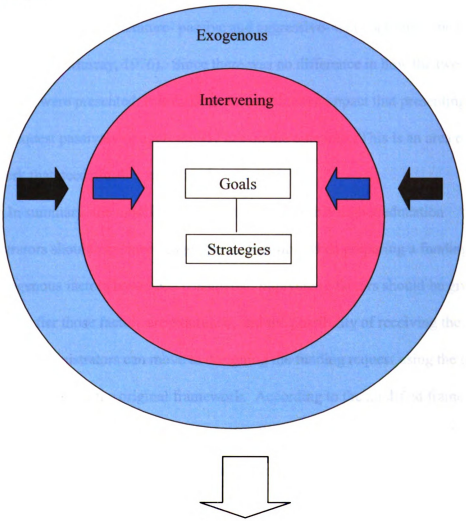
The next section of the framework, highlighted in pink, calls for administrators to consider any intervening factors that may impact the funding request. Again, referring to St. John's definition, intervening factors are those that are controllable by the state government, yet are not controllable from higher education's perspective (St. John, 1991). Examples of intervening factors would include state policy issues on higher education funding, competition among state agencies for Capital Outlay funds, and how much funding the state is willing to provide higher education over a period of time. Ideally, university administrators would examine what intervening factors are at play within the state and plan the funding request initiative accordingly.

The inner most section of the modified framework employs the goals and strategies components based on St John's work (1991). This focuses on the development

of the funding request initiative following the three goals that are important for a postsecondary institution to meet- quality education, equity, and economic development. Administrators would use this part of the modified framework to design their funding request to show that the funded project will meet as many of the five strategies presented by St. John's work as appropriate (St. John, 1991). However, the goals and strategies that are addressed in the funding request must acknowledge the exogenous and intervening factors that affect the state's ability and desire to fund capital requests.

The modified framework I am proposing has a more sequential order to follow. In the original framework, there was no sense that the funding request development process should follow a sequence. Higher education administrators would use the proposed model by working from the outside of the circle inwards, as shown in figure 5.2.

FIGURE 5.2



After the funding request has been developed, the modified framework then calls for higher education administrators to decide whether to present the funding request in a passive or aggressive manner. The reason for this is that exogenous and intervening factors will influence how the funding request is designed and will therefore dictate how the funding request is presented (passively or aggressively) to the legislature. For

purposes of analyzing how the funding request was presented, the two categories established based of the literature- passive and aggressive- will continue to be used (McGrath, 2005; Murray, 1976). Since there was no difference in how the two cases in this research were presented, it is difficult to examine the impact that presenting a funding request passively or aggressively has on the outcome. This is an area of the framework that needs further investigation.

In summary, the modified framework suggests that higher education administrators should consider exogenous factors first when preparing a funding request. Once exogenous factors have been considered, intervening factors should be given attention. After those factors are examined, and the possibility of receiving the funding still exists, administrators can move to designing the funding request using the goals and strategies included in the original framework. According to the modified framework, the goals and strategies may be adjusted as the funding request proceeds. Depending on what exogenous and intervening factors are at play and how they influence state funding will determine how goals and strategies are to be addressed in the funding request. In the modified framework, designing a funding request becomes a more dynamic process rather than one that is static.

Limitations to the study

Qualitative research is always subject to some limitations. If the interviewee has a personal belief on how something should be done in the funding request process, there is a chance this belief could influence the responses they provided. In addition, my own interpretation of the given answers could also have influenced how they were reported in

the final analysis. The information collected from the two cases is subject to how I understand and receive it as well as how I report it. The same threat to validity also appears during the document analysis, as my interpretations of the information reviewed were dependent on my understanding of the subject. I attempted to limit researcher bias, which is discussed by many in the field of qualitative research (Merriam, 1998; Glaser and Strauss, 1967; Taylor & Bogdan, 1998), by using a predetermined set of interview questions and following rigorous systematic procedures for coding and analyzing data (described in chapter 3) in an attempt to ensure that all participants were pursued equally.

My research is also subject to what those interviewed remembered about either case. The lapse of time during the research process is one limitation that is another threat to validity when conducting qualitative research. As stated in chapter four, the two cases chosen to be analyzed occurred one year apart from each other. This was done so that conditions within the environment were relatively similar for both funding requests. Unfortunately, the amount of time that has passed from when the funding requests were submitted to when the research was conducted could have had an impact on what the interview subjects could or could not remember about the case. To address this, I sought information from multiple sources to increase the likelihood of obtaining accurate information. The possibility still exists that some details about how the request for funding was developed were not accurately recalled. I provided information about the cases when needed during the interviewing process to assist those being interviewed in recalling specific details of each case. This potential threat to validity, however, was not a concern in the document analysis.

Another challenge with doing qualitative research is the difficulty of generalizing the findings of the research (Gerring, 2007). Obviously, this is a concern with conducting a case study analysis with just two cases. Yet, the intent of the research was not necessarily to generalize the results to other postsecondary institutions or to persuade all of higher education to follow the conceptual framework in their funding request process. Rather, it was to offer administrators in higher education a model to use as a starting point for reevaluating the way state funding requests are designed and implemented.

Implications for Practice

The goal of this research was to test a model that could be useful in the funding request process. Ideally, such a model could support thinking about the funding request process in a more systematic and strategic way. However, one of the limitations in doing case study research is that the findings are difficult to generalize. The findings from this study must be applied to other settings with caution. This section examines the implications for practice the research findings may have with the understanding that the ideas proposed must be applied with proper qualifications.

The research findings indicate that the conceptual framework does have some value in distinguishing a request that receives funding from a request that does not. The comparative analysis in this study showed that the request receiving funding, the chemistry building addition, did in fact align more closely with the conceptual framework than did the unfunded request. This finding suggests there is some benefit in using a model of key variables (e.g. the conceptual framework in this study) for the reason of

stimulating the thinking of higher education administrators as they plan future requests for state funds. The study's findings overall suggest that administrators can benefit from employing a model as they develop and implement a request for state funds.

In addition, the findings indicate that building a funding request that addresses the common concerns of state representatives seems to strengthen an institution's case for funding. The study results reinforced this idea because the request that received funding accounted for more of the components in the conceptual framework than did the request that did not receive funding. It appears that using a funding request model based on key public concerns and values can help to increase a higher education institution's chance of receiving desired financial support.

The findings of this study also indicate that although using a model to design and implement a funding request can be helpful, the environment and conditions influencing how the state provides those funds is very dynamic. It is critical to account properly for exogenous and intervening variables throughout all stages of designing and implementing a funding request, adjusting the funding request as the environment for funding improves or worsens. Having some sort of a model to follow could bring more clarity and organization to the process and get administrators to think about approaching state funding more proactively.

The model developed in this research is a preliminary attempt to make the funding request process more systematic and more strategic. It was helpful in distinguishing between a request that received funding from a request that did not. The study demonstrates however, that the model needs to be more dynamic and responsive in nature. The revised model, presented in figure 5.2, illustrates a more sequential and

feasible approach, accounting for external factors first by considering exogenous and then intervening variables before developing a case for the needed funding. Monitoring these variables throughout the process could lead to an institution adjusting its goals and strategies as the funding request process proceeds. Ideally this should make an institution's case for state funding stronger.

Implications for Further Research

This study offers possibilities for future research in the area of state funding for higher education. The study was conducted on only two cases at one institution, which makes it difficult to generalize the results to higher education in general. It would be ideal to conduct a study using the modified conceptual framework at multiple institutions examining a variety of different funding request initiatives. It would also be interesting to reexamine the two cases in this research with the modified framework. Conducting this study at more than one institution with various funding requests could possibly lead to more alterations of the framework and bring attention to additional factors that have influence on the funding request process.

Some additional questions for future research include whether there are other elements or variables that should be part of the revised model. For example, in the current environment, campus security and safety might be a major public concern that needs to be added to the goals and strategies component of the framework. Also, future research could examine how the variables in the model interact with one another or if one goal or strategy resonates more with state legislators than the other goals or strategies.

These are questions that could provide the foundation for further research on the topic of state funding and higher education.

There is also the opportunity to test the modified framework in a quantitative study. As discussed in the limitations section, some of the challenges with conducting qualitative research are that it is difficult to generalize the findings and the research is open to interpretation. Conducting quantitative research on the funding request process and the proposed model could offer a different perspective on how the process should be addressed and suggest further modifications to the study's model.

As mentioned earlier, this study did not permit a careful comparison of passive versus aggressive lobbying. This was because both cases were presented passively. With only two cases being researched, I was unable to determine how the actual presentation of a funding request (passive to aggressive) affects whether the requested funding is granted or not. More research is needed on this particular component of the framework. Perhaps conducting multiple case studies where some funding requests are presented in a passive manner versus some that are pursued aggressively would provide a better understanding of whether one method is more closely linked to receiving funding than is the other. Also, such research could help to determine under what circumstances passive and aggressive lobbying practices are more effective.

The modified framework proposed in this chapter utilizes what I learned from this study and places more emphasis on exogenous variables and intervening variables before actually designing the funding request. Rather than acting as a checklist as the original framework did, the modified framework calls for higher education administrators to follow the model in a more systematic and dynamic way. The modified framework

acknowledges that developing a funding request is a dynamic process. The design and implementation of a funding request needs to be assessed and revised according to the changing environment. The exogenous, and then intervening, variables that exist in the environment will ultimately determine how an institution should proceed with submitting a request for state funds.

APPENDIX A

Interview Questions:

The following set of questions asks for information about two cases where MSU requested funding from the Michigan State for two facility-based needs. The two requests, focused on funding for state supported-facilities, are part of the State of Michigan's Capital Outlay Process. The first case (Case A) involved MSU submitting a funding request for 75% of what it would cost for an addition to the Chemistry Building and new cooling towers. The second case (Case B) involved MSU submitting a request for needed renovations to the University Research and Containment Facility which supports scientific research in areas of large and small animal pathology.

My questions concern the design and implementation of the request for the state funding of these two projects from the perspective of the institution (MSU). My questions will focus first on the funding request for the Chemistry addition and then on the request for the containment facility.

1) Please describe your role (job) in the MSU/state of Michigan funding request process as it relates to the Chemistry addition (CASE A)? Research Containment Facility (CASE B)?

2) Please describe the purpose of the project MSU was seeking funding for?
    a. Were there specific goals for the project?
    b. If so, what were they?

c. How were these goals explained to potential funders/legislators?

3) How were the potential benefits of this project explained in the funding request?

4) Who was involved with the funding request process for this particular case?
   a. From MSU? What role did they play?
   b. From the state legislature? What role did they play?
   c. Anyone from outside either MSU or the State legislature (e.g., consultants, industries, associations, professional organizations) What role did they play?

5) Describe what **institution (MSU) issues and concerns** were addressed in the funding request that MSU presented to the state.

6) Describe what **state issues and concerns** were addressed in the funding request that MSU presented to the state.

7) Describe **what issues outside of MSU's control** were of concern when designing the funding request initiative?
   a. Were these concerns addressed in the funding request? If so, how
   b. Did any factors outside of the control of the institution (e.g., State Policy issues, Economic conditions, Current perceptions of higher education,

Other factors) play a role in whether the funding was granted or not? Please explain.

8) Please describe in detail the approach MSU used to win state support for the proposed project.
   a. What was the sequence of steps MSU took to win state support for the project?
   b. Were other means (such as focus groups, media, support from related interest groups, etc.) used in this funding request process?

9) Why do you feel the funding for this project was or was not granted?

10) Is there any additional information regarding the funding request initiative for this case that would help to clarify how this funding request initiative proceeded?

Thanks you for your time and information you have shared.

APPENDIX B

Research Participant Information and Consent Form

You are being asked to participate in a research project. Researchers are required to provide a consent form to inform you about the study, to convey that participation is voluntary, to explain risks and benefits of participation, and to empower you to make an informed decision. You should feel free to ask the researchers any questions you may have.

Study Title: Examining the funding request process between public higher education and the state legislature

Researcher and Title: Andrew Midgley, Doctoral Student

Department and Institution: College of Education, Michigan State University

Address and Contact Information: 412 Olds Hall (517) 355-9582 midgleya@msu.edu

1. PURPOSE OF RESEARCH: ***(This is a required element of consent)***

You are being asked to participate in a research study that will examine the funding request process between a public higher education institution and the state legislature. Specifically, the process Michigan State University follows when requesting funding from the Michigan State Legislature. You have been selected as a possible participant in this study because of your involvement in the process from either Michigan State University or the State of Michigan's perspective on the involved cases being researched.

From this study, the researcher hopes to better understand the dynamics of the funding request process and what leads to a proposed project being funded or not by the state. My intention is to provide a conceptual model for higher education administrators to possibly utilize when planning further state funding request initiatives. Your participation in this study will take approximately 30 to 45 minutes.

2. WHAT YOU WILL DO:

You will be asked to participate in an interview where the researcher that will ask questions about two case studies in the research. The questions will ask about specific information that went into the planning and hearing of the two cases.

3. POTENTIAL BENEFITS:

You will not directly benefit from your participation in this study. However, your participation in this study may contribute to the understanding of the funding request process between public higher education and state legislature.

4. POTENTIAL RISKS:

There are no foreseeable risks associated with participation in this study

5. PRIVACY AND CONFIDENTIALITY:

The results of this study may be published or presented at professional meetings.

- o I agree to allow my identity to be disclosed in reports and presentations.
  ☐ Yes ☐ No Initials_____

- o I agree to allow audiotaping of the interview.
  ☐ Yes ☐ No Initials_____

Your confidentiality will be protected to the maximum extent allowable by law.

Data will be stored in a locked cabinet in my work office and in a password protected file on my home personal computer. The data will be kept for 5 years of completion of the research.

6. YOUR RIGHTS TO PARTICIPATE, SAY NO, OR WITHDRAW

Participation in this research project is completely voluntary. You have the right to say no. Also, you may change your mind at any time and withdraw and you may choose not to answer specific questions or to stop participating at any time.

7. COSTS AND COMPENSATION FOR BEING IN THE STUDY:

You will not receive money or any other form of compensation for participating in this study.

8. CONTACT INFORMATION FOR QUESTIONS AND CONCERNS

If you have concerns or questions about this study, please contact the researcher:

Andrew Midgley
412 Olds Hall
Michigan State University
(517) 355-9582
midgleya@msu.edu

If you have questions or concerns about your role and rights as a research participant, would like to obtain information or offer input, or would like to register a complaint about this study, you may contact, anonymously if you wish, the Michigan State University's Human Research Protection Program at 517-355-2180, Fax 517-432-4503, or e-mail irb@msu.edu or regular mail at 202 Olds Hall, MSU, East Lansing, MI 48824.

9. DOCUMENTATION OF INFORMED CONSENT.

Your signature below means that you voluntarily agree to participate in this research study.

Signature_____ Date_____

APPENDIX C

Michigan Capital Outlay Process

Capital spending for higher education is traditionally designed to increase educational capacity while enhancing quality (Hearn & Holdsworth, 2002). The Michigan Capital Outlay process focuses on funding for acquiring, renovating, maintaining, and constructing new facilities used by state agencies and public universities and colleges (McKeown-Moak, 2001). In Michigan, the House Fiscal Agency produces a document that explains the Michigan Capital Outlay Process. Any changes made to the process from year to year are also included in this document.

There are multiple steps that a higher education funding request must go through in the Michigan Capital Outlay Process. On an annual basis, institutions must present rolling five-year master plans of their facility needs and funding requests to both the Department of Management and Budget (DMB) and the Joint Capital Outlay subcommittee (JCOS). In these master plans, the institution's administration should place a priority on a particular facility-based project they deem most important to receive funding. Specifically, the DMB wants the state agency, in this case the university, to name one project or request as their top priority (Emerson, 2008). There is no limit on the dollar amount for the projects for which funding is being requested. In these plans, the institution's administrators have the opportunity to present their rationale for the needed funding.

The DMB review of the projects entails having the project analyzed by in-house architects and other professionals in this area (Valenzio, 2007). The DMB can

recommend adjustments to the plan to fit the state's priorities or to simply bring the cost down. Once the DMB accepts a project plan, it is then forwarded to the JCOS for approval. During the process, the governor also has an opportunity to review the master plans and offer recommendations on the project if needed.

If the project is either approved by the JCOS or is recommended by the Governor, the legislature will review the state's executive budget and will determine if the institution can begin the planning phase of the project. At this time, the institution submitting the funding request has an opportunity to submit more detailed plans on the design and scope of the project. Planning costs are then calculated as part of the funding request; any costs in planning the project are provided through state appropriations for state agencies that receive funding for their request. At the time the cases in this research were presented, universities had to match 25 percent of the planning costs while community colleges had to match 50 percent. Higher education administrators need to take guidelines like these into account when designing funding requests.

The Joint Capital Outlay (JCO) subcommittee provides ongoing legislative participation in the process. The subcommittee has 16 members with eight representing the House and eight representing the Senate Appropriations Committee. The members are appointed by the chairperson of each respective appropriations committee (Valenzio, 2007). The subcommittee is alternately chaired by each branch of the legislature on a two year rotation.

The funding request submitted by a university is carefully analyzed by the members of the JCO. The JCO develops the policies that direct the Capital Outlay process. Some of the responsibilities of the JCO include defining what constitutes a

Capital Outlay Project, approving or disapproving a project's program statement and schematic documents, establishing a project's total authorized cost and financing sources through an appropriations act, determining criteria used for project prioritizing, and establishing standard project match rates (Valenzio, 2007).

The State of Michigan has three methods for funding Capital Projects. The first is the pay-as-you-go method that consists of providing appropriations to meet project costs as they come up or financing the entire project in one lump sum. Lump sums are usually used for smaller, more restricted projects. The second, the lease-purchase method, would involve the state entering into a long-term contract with a developer and receiving the facility at the end of that lease for a nominal fee. The third method is using bond proceeds to pay for facility financing.

Once the funding request has been approved, the legislature provides cost and construction authorizations for the project to begin. Final designs are then produced and construction bids are taken by individual contracting companies. The state gives the university the option to manage its own project with the DMB performing periodic audits. This part of the process is not directly influenced by the initial funding request but is still important to mention when outlining the Michigan Capital Outlay process.

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