

**THE EFFECT OF  
RESPONSIBILITY CENTRE BUDGETING/  
RESPONSIBILITY CENTRE MANAGEMENT  
ON THE ROLE OF ACADEMIC DEANS IN A PUBLIC UNIVERSITY**

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*To my husband, Don, and our daughters, Jaimee and Shannon.*

## **ABSTRACT**

The purpose of this study was to determine the effects of Responsibility Centre Budgeting/Responsibility Centre Management (RCB/RCM) on the role of academic deans in a public university. A model was developed in the study, incorporating the traditional role of deans, the components of a responsibility centre budget, and current management theories. Using this model, a new dimension of the deans' decisional role emerged. The increased decision-making is characterized and bound by issues of autonomy, accountability, communication, and contingent factors.

The research implies that the deans studied in this particular RCB/RCM system carry out roles similar to those of general managers in the for-profit sector. An implication for academics holding this expanded role is that knowledge and/or training in RCB/RCM systems is required. Additionally, the workload generated by this type of system, and the accountability it imparts on deans, necessitates the assistance of individuals trained in budget preparation.

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## **LIST OF ABBREVIATIONS**

<b>FLE</b>	<b>Full-time Learning Equivalent</b>
<b>FTA</b>	<b>Full-time Academic (Teaching Positions)</b>
<b>FTE</b>	<b>Full-time Equivalent (Students)</b>
<b>IUPUI</b>	<b>Indiana University-Purdue University Indianapolis</b>
<b>RCB</b>	<b>Responsibility Centre Budgeting</b>
<b>RCM</b>	<b>Responsibility Centre Management</b>
<b>RCB/RCM</b>	<b>Responsibility Centre Budgeting/ Responsibility Centre Management</b>
<b>U of L</b>	<b>University of Lethbridge</b>

## **CHAPTER ONE: OVERVIEW OF THE STUDY**

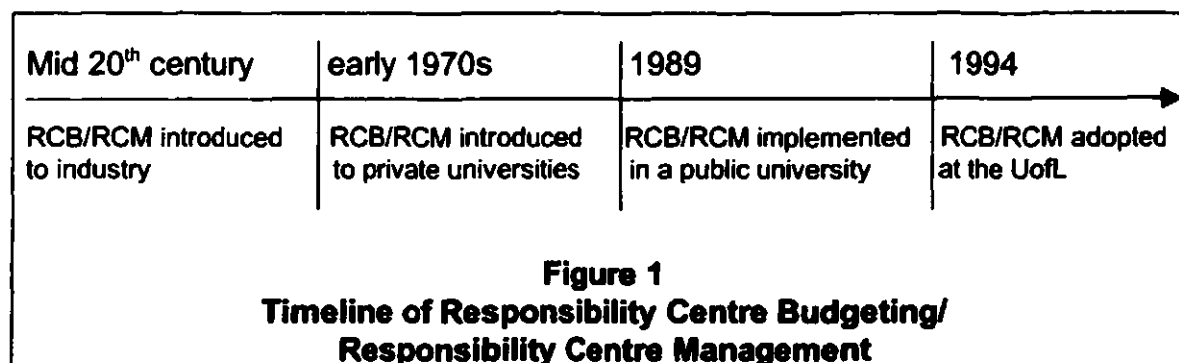
How does a small, liberal arts university continue to deliver quality public education in the face of twenty-one percent government funding cutbacks? This is exactly the scenario the University of Lethbridge faced in 1994. Twenty-one percent represented over seven million dollars. Spread over three years, the cuts nearly equaled the total cost of salaries in one faculty. In a university with five faculties, this had tremendous impact. Thus, an incredible challenge lay ahead.

All Canadian universities faced financial challenges in the 1990s. Following decades of growth in governmental spending on the universities, the 1990s brought minimal growth and ultimately, cuts in government grants (Tavenas, 1993). The 1990s provided a 'wake-up call' for many universities around the country (McConaghy, 1997). The abundant government funding that Canada's universities had experienced since the end of the Second World War was now a thing of the past.

Facing a turbulent environment, the University of Lethbridge (U of L) took a contrary approach to handling its budget. Administration decided to decentralize the budgeting system, making academic deans responsible for the 'bottom line' of their faculties and schools, which were traditionally considered 'cost centres.' Sources from the University of Lethbridge financial services, and central administration, indicated that this decentralization was modeled on the Responsibility Centre Budgeting/ Responsibility Centre Management system in

place at a handful of American universities. Most of these universities were private, however, and the notion of decentralizing public institutions in Canada was very much an exception, rather than a rule.

Responsibility Centre Budgeting (RCB) has since the 1950s been a popular method of accounting in industry (Merchant, 1989) and has been used by a number of private universities for the past 30 years (Whalen, 1991). The practice of assigning responsibility (the quality of being placed in control), and accountability (the quality of being answerable to someone) for revenue and expenses to centres within a public university, however, is a phenomenon that has only just passed the decade mark, (since implementation in 1989), at Indiana University-Purdue University Indianapolis, the first American university to implement the system (Whalen, 1991), and has existed for less than a decade at the U of L (Figure 1).



In addition to passing responsibility for the budget down to the centres (which in this thesis are strictly the faculties/schools), decision-making is also reallocated through decentralization to the centres. This phenomenon is known as Responsibility Centre Management (RCM) (Lang, 2001). The concept of

decentralizing the decision-making associated with budgets is therefore coined RCB/RCM.

The U of L's adoption of RCB/RCM was intended to afford the academic deans "more flexibility in times of severe budget reductions" (The University of Lethbridge, Planning and Three-Year Budget Forecasting Manual, 1994, p. 5). An important change allowing this flexibility was the possibility of carrying forward surpluses and deficits. Past practice required that faculties or schools use up the budget or lose the money. RCB/RCM meant that the academic centres became profit centres, and each unit retained increases in tuition revenues and cost savings.

The implementation of RCB/RCM was both innovative and bold. Not only would this new system push critical decision making to the areas closest to the action, but as the notion of decentralization in public universities in the early 1990s was virtually unheard of in Canada and was only beginning to gain ground in the United States, the U of L was at the forefront in the pioneering effort of decentralization, which had traditionally been reserved for the private sector.

We will see throughout this study that the processes of an RCB/RCM system in the not-for-profit sector are not well understood. RCB/RCM in the for-profit sector is based on the premise that efforts lead to outcomes, which are motivated through rewards (Crum & Hoshower, 1986). However, when RCB/RCM is transferred to the public sector, the measurement of outcomes becomes blurred. Traditionally measured through universal standards in the for-profit sector, efficiency and effectiveness are much more difficult to determine in

public institutions. While efficiency is what the government looks for, and effectiveness is the quality of public goods that the public wants (Stein, 2001), how do we measure these in a university environment, and are they in the best interest of the institution?

Secondly, motivation and rewards are vaguely defined in the not-for-profit sector. Monetary rewards are not granted as they are in private corporations, where profit and market capitalization are standard measurements of outcomes, on which rewards are based. What motivates a manager in a public organization such as a university to perform his or her duties?

#### **Research Question and the Need for Research**

Academic deans have traditionally worked with centralized budgeting systems. The introduction of decentralized financing into a public university poses a new and fascinating area of research in the fields of accounting and organizational studies. This new concept, coupled with a lack of existing research, drove the research question investigated in this study: What effect does Responsibility Centre Budgeting/Responsibility Centre Management have on the role of academic deans in a public university?

With virtually no empirical work provided in the literature concerning the effects of RCB/RCM on the role of academic deans in public universities, my position as a faculty member and graduate student at the U of L provided me excellent access to research this little known area. The deans at the U of L, directly affected by the consequences of decentralization, were invaluable in

providing input to the understanding of the effects of RCB/RCM in public universities.

Understanding the effects of RCB/RCM on academic deans is a vital step in understanding the process of decentralized finances in public universities. Such an understanding is imperative, since universities are subject to public scrutiny, and the decision makers' choices must be made clear to the public. The management responsibilities of deans, in general, are little understood by both the public at large and the faculty in the academic world (Gmelch, Wolverton, Wolverton, & Sarros, 1999). This lack of knowledge, combined with a change to the financial management system utilized by the deans, deserves study in order to shed light on both the changing role of deans, and the move to decentralization in public institutions.

#### **Review of the Literature**

Clearly, two distinct topics must be addressed in this study: RCB/RCM, and the role of an academic dean. The following literature review is therefore divided into two sections.

Section One examines the role of the academic dean in North American universities. The evolution of the role from its beginnings in the 1870s to the present is discussed. The available literature on this subject is limited, however. The actual role of an academic dean has been described in only a handful of texts and articles (Dibden, 1968; Gmelch et al., 1999; Gould, 1964; Griffith & McCarty, 1980; Morris, 1981; Tucker & Bryan, 1988), with the minority of these

representing empirical work. Most of this literature is descriptive, and none addresses the role of an academic dean who operates in an RCB/RCM system. The role described and studied to date is what one might call the 'traditional role,' that being the role of a dean in a traditional, centralized university.

Section Two of the literature review examines RCB/RCM, from its roots in industry to its use in public universities. Examples, mechanisms, advantages, disadvantages, and the principles of RCB/RCM in public universities are also discussed. The majority of the literature on this topic is limited to descriptive reporting. Whalen (1991) and Lang (1993) concentrate primarily on the processes of RCB/RCM, while Fuchsberg (1989), Bepko (1990), Heath (1993), Agostino (1993), Cantor and Courant (1997), Stocum and Rooney (1997), and Adams (1997) offer theoretical opinions about the pros and cons of RCB/RCM. Two empirical studies (DeHayes, et al., 1994; West, Seidita, Di Mattia, & Whalen, 1997) address the use and effectiveness of RCB/RCM in American universities. These studies do not, however, directly address the effects of RCB/RCM on the role of an academic dean.

In addition to the relatively sparse literature concerning the role of academic deans, and concerning RCB/RCM in public universities, I found no empirical literature addressing the effect of RCB/RCM on the role of the academic dean. While the general theoretical implications of RCB/RCM within universities are described and debated at length, little more than a short paragraph or two is given to even discussing the effects of RCB/RCM on academic deans (Lang, 2001; Whalen, 1991).

## **Methodology**

Grounded theory was well suited to the objectives of this research, which was intended to develop theory in a field where virtually none exists. A qualitative investigation was necessary in order to formulate new theories for future testing. The case in this study is The University of Lethbridge, whose five academic deans were interviewed in order to develop a database. Each was asked the open-ended question, "How has Responsibility Centre Budgeting affected your role as dean?"

Each interview was sixty to ninety minutes in length. I interjected with 'how and what' questions when clarification was necessary or when information was required for comparison with concepts from the literature or prior interviews, and with 'why' questions when I wanted to get closer to the core of the discussion. The interview data was coded and categorized, and through the process of grounded theory described by Strauss and Corbin (1998), a theory and themes emerged.

## **Summary and Contributions of the Research**

The study resulted in one dominant theory, which was closely linked to four themes. The theory that emerged as a result of my research is this:

Responsibility Centre Budgeting/Responsibility Centre Management adds a new dimension to the role of an academic dean in a public university, increasing the decisional role (Mintzberg, 1973) to include the role of 'entrepreneur' (and 'disturbance handler' when combined with an uncertain environment). Deans in RCB/RCM systems face long-run responsibilities (Kotter, 1982), and thus RCB/RCM bestows both Mintzberg's and Kotter's complete set of managerial roles on the dean.

**Four themes define the characteristics or boundaries of the deans' decision-making role in an RCB/RCM system:**

- 1. RCB/RCM, by decentralizing decision-making, has granted deans a greater level of autonomy.**
- 2. The increased autonomy found in an RCB/RCM system heightens the academic deans' level of accountability.**
- 3. Contingent factors at all levels have an effect on the deans' level of autonomy and accountability within their decisional role.**
- 4. The increase in autonomy and accountability passed down to deans in an RCB/RCM system increases the need for two-way communication.**

**These findings indicate that there are important role implications for academic deans operating in a decentralized system. The results of this study clearly indicate that RCB/RCM contributes to a much greater decision making role for deans – affecting their levels of autonomy and accountability, necessitating increased communication, and forcing the awareness of contingent factors at all levels by all parties. These results tie the literature on RCB/RCM and the role of academic deans together, and offer insight where virtually none has been provided to date.**

**This study will shed light on the effort component of the RCB/RCM process. This allows a starting point from which future research can be conducted to answer some of the perplexing questions surrounding the**

**RCB/RCM process in not-for-profit organizations. The results of this study will also be useful to the deans and administrators at the U of L, and to those in other public universities currently using or proposing RCB/RCM.**

### **Organization of the Thesis**

**Chapter Two examines the literature on both the role of academic deans, and on Responsibility Centre Budgeting/Responsibility Centre Management. As we see the terms 'manager' and 'CEO' working their way into the literature on academic deans' roles, theories of managerial roles are included in that section of the review, also. A case synopsis is provided in Chapter Three, providing information and statistics regarding the University of Lethbridge, and a background to the implementation of RCB/RCM. In Chapter Four I discuss grounded theory and its applicability to the objectives of my research. Research results and analysis are presented in Chapter Five. In Chapter Six, I summarize my study and discuss the implications of my research, including areas for future research. Finally, the contributions of this research are addressed.**

**CHAPTER TWO: LITERATURE REVIEW**  
**PART ONE: THE ROLE OF AN ACADEMIC DEAN**

What does an academic dean do? I was disappointed by the limited quantity of literature available to help me answer this question. As Gmelch et al. put it, "The academic deanship is the least studied and most misunderstood position in the academy" (1999: 717). Working with the handful of better known texts (Dibden, 1968; Gould, 1964; Griffiths and McCarty, 1980; Morris, 1981; Tucker and Bryan, 1988) in order to gain a sense of the history of the role, and with even fewer recent articles examining the role as it stands today, I quickly came to agree with Gmelch et al. Not only did I have little to work with, but as Dill argues (1980), the unplanned evolution of deans has left us today with "an amorphous, variegated, perhaps ultimately indescribable role" (p. 262).

Thus, I embarked on a literature review with very little literature, only to discover that a clear definition of a dean's role was not to be found. In order to study the effects of Responsibility Centre Budgeting/Responsibility Centre Management (RCB/RCM) on the role of an academic dean, however, I needed to establish some kind of form for this possibly 'indescribable role.' In addition to the literature on deans' roles, I reviewed literature from management studies, as I came to agree with Tucker and Bryan (1988) that deans had progressed to acting as academic 'managers' throughout the twentieth century. Deans are, in fact, now compared to CEOs by the most current writers (Gmelch et al., 1999).

I then structured a rough framework for my research. We should not standardize the role of deans, as Gould (1964) theorizes that regulation or standardization would overlook the fact that universities are made up of human beings. Deans, like the universities they work in, grow in different ways. Therefore, contingent factors will exist, resulting in decanal and faculty variables. Tucker and Bryan enforce this theory, stating that “no maxims...will apply universally to every decanal problem” (1988, p. xi). Dill (1980) also supports this belief, arguing that the role of each dean is distinct, depending on a number of contingent factors, such as the size and diversity of the faculty and university, and on relationships with outside constituencies.

Without attempting to standardize the role of a dean, I sought generalizations from the literature in order to understand what an academic dean does. The information available pertained primarily to deans working in centralized universities, whom I refer to as ‘traditional’ deans in this study.

This section of the literature review first addresses the contributions of the literature, tracing the evolution of the academic dean’s role. Next, I will discuss the literature on management roles.

### **The Role of an Academic Dean: Past to Present**

Gould’s (1964) study of 260 deans and Dibden’s (1968) collection of conference papers on the role of academic deans were useful in helping me to understand the history of the position of academic dean. Dill (1980) and Tucker and Bryan (1988) also offered some insight into the history of academic deans.

The position of academic dean was created in the late 1800s at Harvard University under the leadership of President Elliot. Dupont (1968) offers insight into this new role by relaying the job description written by Elliot:

The Dean of the college Faculty is appointed by the Corporation, with the consent of the Board of Governors, from among the members of the Faculty. It is his duty:

- to preside at the meetings of the Faculty in the absence of the President;
- to administer the discipline of the college;
- to take charge of all petitions from undergraduates to the Faculty;
- to keep the records of admission and matriculation;
- to furnish such lists of students as may be required by the Faculty or the several teachers;
- to prepare all scales of scholarship, and preserve the records of conduct and attendance;
- to submit each year to the Faculty lists of persons to be recommended for scholarships and beneficiary aid, and likewise a list of those who appear, from the returns made to his office, to have complied with all the regular conditions for the degree of Bachelor of Arts;
- and in general to superintend the clerical and administrative business of the College. (p. 7) [bullets added by author]

This role was originally established to provide a middle person between a university's president and the faculty, acting as an extension of the president (Dill, 1980). Looking at the above list, one can see that these early deans carried out primarily administrative duties, not unlike the duties of today's registrars who focus on the supervision of students and their records.

Unfortunately, literature on the evolution of the dean's role from this original position to the mid-twentieth century is limited. Tucker and Bryan (1988) state that tending to the affairs of a university campus was a relatively simple task before World War II. McGrath (1964) refers to the dean's role in the 1950s

and 1960s as “moving further and further away from the elements in the institution which are its primary reason for being – the students and the faculty” (p. vii). Prewar responsibilities of the deans included student counseling, meeting with parents, teaching, research, keeping abreast of the literature in their field, and conferring with faculty members. McGrath’s description of these earlier responsibilities indicates that the role of deans remained more or less unchanged during the 1950s. Deans were still engaged in their academic pursuits, and primarily managed student affairs. The one addition to the role that appears in his description is ‘conferring with the faculty,’ a point which is not included in President Elliot’s list.

More has been written about the role of dean since World War II, and I now turn to a discussion of this later period. Tucker and Bryan (1988) point out that the era following the war and well into the 1960s was a time when growth took place with little focus or direction, and deans were confronted with an abundance of additional responsibilities. When the post-World War II growth spurt of the 1950s and 1960s ceased, universities and their faculties faced inadequate funding to meet the demands of the new pace. Deans, who once confined themselves mainly to faculty issues and administrative duties, were now called upon to become ‘academic managers,’ rather than what McGrath termed ‘educational leaders.’

The results of Gould’s (1964) study showed that the dean’s role was changing, moving more towards routine administrative duties, conferring on government and other research contracts, seeing visitors to the university, and

developing programs. The 166 deans who responded to Gould's questionnaire came from a wide array of backgrounds. Their experience ranged from less than a year, to thirty-one years. Total institutional enrollments ranged from 425 to 22,500 students. The respondents represented twenty-four subject areas.

Gould (1964) outlined the dean's various responsibilities, and the time and skills required for each. Following are the responsibilities that required most of the dean's time, in descending order:

- routine administrative duties: correspondence, scheduling, catalog, reports, questionnaires
- committee work, faculty relations and morale
- recruitment of faculty
- student counseling
- curriculum work, and
- budget work, promotions, evaluation of personnel.

Deans carried out other responsibilities also, which required considerably less time than these.

The deans' responsibilities were also ranked in order of skill level required. The responsibilities requiring the highest levels of skills were the following, again listed in descending order:

- faculty relations and morale
- curriculum work
- budget work, promotions, evaluation of personnel, and
- recruitment of faculty.

While the highest level of skill required by the deans was for faculty relations and morale, the other three categories listed above were nearly identical in ranking.

The remainder of a dean's responsibilities, not shown here, had lower skill level scores.

DeVane's (1968) study supported Gould's (1964) findings that the dean's key responsibility, in terms of skills, was to manage faculty relations and morale. Other tasks were seen as suitable for delegation, but this one was not. While delegation of other responsibilities relieved some of the daily pressures, the dean was still responsible for the overall well being of the faculty.

Gould (1964) concluded from his study that deans did not have enough time to carry out all of their responsibilities. Some of the deans surveyed expressed opinions that deans need to act as executive officers to the faculty. Interestingly, a current study by Gmelch et al. (1999) echoes this same sentiment. Very few deans in that study believed that deans should focus on overall organizational goals and the use of total resources. The deans acted on a micro level, as the executive officers of their faculties, rather than adopting a macro view of the university's objectives.

Unfortunately, little has been written to bridge the time span from Gould's study, to the 1980s. We are told that the dean's responsibilities were continually increasing over time; however, we are not told exactly why. In an attempt to fill this gap in time, I turned to the more recent research. Scott's (1979) results from his empirical study of three deans, Tucker and Bryan's (1988) list of 'relationship responsibilities,' and Morris's (1981) criteria for evaluation of deans were all useful in making a comparison across the decades.

Scott (1979) observed the actions and read the daily logs of three deans at Cornell University over an extended period from 1965 to 1978. The deans consisted of a philosopher, an economist, and a psychologist. Scott found that the deans' primary concerns dealt with extraordinary items, budgets, curriculum, and faculty. The faculty issues consumed most of the deans' time, in contrast to Gould's (1964) findings that administrative duties were the most time consuming. Concerning administrative duties, Scott emphasizes throughout that deans consider themselves amateurs in this area. Deans are hired into their positions as academics, and not as professional administrators. Scott's role description is similar to those of the 1960s, in that, in both studies, relations with the faculty required the most skills on the part of the dean. Scott suggests that political prowess with mediation and moral suasion skills are necessary for successful deans, over and above administrative flair.

Morris (1981), and Tucker and Bryan (1988) offer descriptive, if not prescriptive accounts of the dean's role. While their texts are not empirically based, the authors have backgrounds as academic administrators and deans, and offer us a glimpse into real life experiences. Tucker and Bryan's list of relationship responsibilities is grouped into the categories of fund allocation, personnel management, and dealing with support agencies. Studying these responsibilities, I attempted to make a connection to Gould's study, to determine why the role kept growing in complexity. To make this connection, I first looked at the deans' particular responsibilities within the three major roles.

Within the role of fund allocations, in the 1980s deans were responsible for budget allocations among departments and programs. Tucker and Bryan (1988), and Morris (1981) describe the financial role as one of planning and setting realistic goals within the confines of the budget. Morris notes that a dean must 1) prepare the budget, 2) distribute resources, and 3) control the resources. Tucker and Bryan list five considerations that the dean must consider when setting priorities:

- the strength and weaknesses of the programs [in the faculty]
- the internal arrangements [of the faculty] with other units in the institution
- the needs of society, which are not necessarily the same as marketplace considerations
- the opportunities for the students of the institution
- the desires and aspirations of the faculty (p. 6)

These points give us some indication that the budgetary role of deans in the 1980s had grown to include not only fiscal considerations of individual faculties, but also to the university and society as a whole. Tucker and Bryan (1988) state that all of these considerations are necessary, as “no [faculty] can stand apart from the rest of the [faculties] in a university, no [faculty] can divorce itself from its central administration” (p. 11).

Despite the deans' increased financial focus, their attention to their faculty budgets remained a crucial factor in their effectiveness, since “The budget document is the main conveyor of information about the academic unit's needs and aspirations” (Tucker & Bryan, 1988, p. 123). A critical tool of communication, the effectiveness of a budget presentation by a dean to the

academic vice-president determined the quality of the education provided to students.

In comparing the dean's role in the 1960s with that in the 1980s, I next evaluated the 'personnel management' role as described by Tucker and Bryan (1988). Clearly, deans interact with many types of people. We have seen that their role originally lay in this category, dealing with students and central administration (Dibden, 1968). Following the post-war period of growth, the role expanded to include relations with the faculty, and has since grown to include relationships with chairpersons, assistant deans, administrative and academic deans, and the external public. The following short discussion addresses these various personnel relationships.

Gould's (1964) study noted that deans were moving away from the management of students and Tucker and Bryan (1988) reported deans spending less than ten percent of their workday with students. Tucker and Bryan also referred to the rising tide in student consumerism. Assistant deans in charge of students have been added to many faculties to address the ever-increasing needs and wants of students; excellent communication must exist between the dean and his/her assistant dean. The dean is ultimately at the helm of the faculty whose primary elements are students and faculty, and the responsibility for student management cannot be erased from a dean's role.

In addition to assistant deans in charge of students, deans often have associate deans to assist with the extensive list of faculty responsibilities. These individuals assist the dean with the program's priorities, faculty upgrades,

curriculum, and scholarly activity. Therefore, they assume several of the routine administrative duties that required so much of the deans' time in Gould's (1964) study. The pivotal role played by these associate deans requires that the dean maintain excellent communication with them.

Since the role of dean began, it has involved dealing with central administration. The literature does not tell us specifically how this responsibility has grown. However, by the very nature of the growth of central administration in universities over the last century, the dean now has more people to deal with. Whereas relations were originally primarily with the president, universities have since grown to include additional layers of vice-presidents and provosts. In addition, more positions for deans exist now than ever before, in many areas of administration and academics. Any one particular academic dean now has a much larger internal network within which to operate.

As mentioned, conferring with faculty members ranked as the responsibility demanding the highest order of skills in Gould's (1964) study, and the second highest amount of time. Yet McGrath (1964) refers to the deans moving away from this responsibility. Perhaps his interpretation is based on the many new roles deans were assuming in the late 1950s and early 1960s, roles which were cutting into the time required for conferring with faculty members. The ranking of this responsibility does not appear to have diminished over the decades, however, as both Tucker and Bryan (1988), and Morris (1981) refer to the importance of the dean's relations with the faculty members. Morris lists 'leadership of staff and faculty' as one of the criteria by which deans should be

evaluated. He also refers to 'talent finding and building the unit' as an essential criterion. Tucker and Bryan state that recruitment of faculty is perceived to be "perhaps the most important single aspect of the dean's job" (p. 83).

Recruitment of faculty was not considered the task requiring the most time or skill by the deans of Gould's study, however. We can see that recruitment has increased in importance over the years, while general relations with faculty remain an essential component of the dean's role.

Finally, deans manage relations with personnel external to the university. Within this group are alumni, parents, trustees, and legislators (Tucker & Bryan, 1988). These relationships are important for developing and maintaining a positive public image for the university. Interestingly, relations with parents were seen as a responsibility that deans were no longer able to fulfill in the Gould (1964) study. At that time, also, deans were just beginning to confer on government contracts, now an important responsibility of the dean's role. Deans, in conjunction with central administration, must educate legislators on issues relevant to university education. Misconceptions about universities and their economic contributions are common, and these doubts must be addressed in the context of budget appropriations. Morris (1981) underlines the relevance of this role by placing the ability to relate to the external world in his list of evaluation criteria.

The role of deans in personnel management has grown from the original relationships with students and central administration to the present situation where deans deal with external groups, faculty, assistants, other deans, and

other administrators of the university. The final major role identified by Tucker and Bryan (1988), dealing with institutional support agencies within the university, also deals with personnel relationships, but is classified separately, as the relationships are related more to support than to academics. Many administrative offices sprang up in mid-century to address issues such as research contracts, housing, financial aid, and student counseling. To serve the student body, administration and support staff must work together – one more relationship role for the dean.

To summarize the growth in the role of the academic dean, budgetary considerations now require a broader vision, personnel management has expanded to include multiples of the original relationships, and the development of support units within a university's infrastructure has added more complexity to the role. This wide array of responsibilities probably led Tucker and Bryan (1988) to describe the academic dean as 'a dove,' a 'dragon,' and 'a diplomat.' The dean is a dove when he/she must be the keeper of peace between the administration and the faculty. The dragon arises when internal or external threats face the faculty. Finally, the dean is a diplomat, someone who can "guide, inspire, and encourage the people who live and work in such an environment" (p. ix). According to Tucker and Bryan, the role of diplomat is the one most often played.

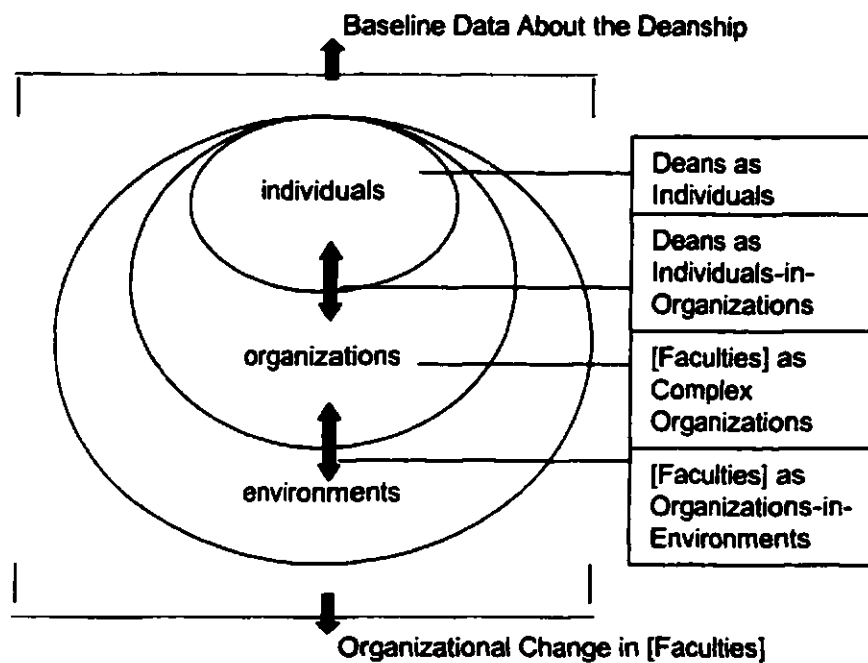
A number of authors in Griffiths and McCarty's (1980) text helped to clarify the academic dean's role. Their articles address a variety of issues related to the role of academic dean. Though the program proposed in this collection was

directed to deans of education in the United States and Canada, the authors intended the research to apply to deans of many disciplines. Their articles capture the contingent nature of deaning, recognizing that variables exist among deans and faculties. I refer to the more pertinent chapters by Culbertson, Silver, Coladarci, Ryan, and Dill in this literature review.

Culbertson (1980), writing on behalf of The University Council for Educational Administration (UCEA), explained the council's plan to stimulate further research into the role of the academic dean. Culbertson depicts what he refers to as 'domains of inquiry' in his proposed conceptual framework for further research. I found this framework particularly helpful in illustrating the dean's relationships with the organization (Figure 2), in the 'deans as individuals-in-organizations' domain. (The diagram has been edited here to include the word 'faculties,' rather than 'faculty of education.')

Culbertson describes this domain as an area in which to examine the role of deans.

Silver (1980) recognizes two levels of responsibilities within Culbertson's (1980) proposed project. She stresses the need to study the dean's role at both the 'intra-domain level' and the 'inter-domain level,' which coordinates the entire framework. This view recognizes that deans do not act in isolation in the university, that the organization and surrounding environment have a significant impact on deans.



**Figure 2**  
**Adaptation of the Conceptual Framework for the Research Program:**  
**The Domain Structure**

*(Source: Culbertson, J. 1980. Programmatic Research on the Deanship: Rationale and Strategy)*

Coladarci (1980) proposed the recognition of three realities in the role of education deans, that again, due to the similarities to this research, are generalized here to include deans of all faculties. The first reality is the 'heterogeneity [of faculties].' The second is that decanal roles and the performance of deans include many variables. The third is that "the performance of a dean (or anyone else) is explainable most usefully in terms of interactions among personal and situational characteristics" (p. 127). Thus Coladarci underscores the contention of Gould (1964), Dill (1980), and Tucker and Bryan (1988), that the role of a dean cannot be neatly contained in one description.

Ryan's (1980) article addresses the fact that little research has been conducted outside of surveys that offer little insight into the dynamics of an academic dean's role, or the relationships between the role and the organization and its environment. Ryan further supports the notion of heterogeneity in the dean's role, and suggests that while a number of contingent factors impact a particular dean's role, more research is necessary to identify and explain generalizable patterns within the role.

Gmelch et al. (1999) and Wolverton, Wolverton, and Gmelch (1999) agree with the long-held notion that the dean's role is under-researched and largely ambiguous. Wolverton et al. collected responses from over 800 deans in the late 1990s, surveying issues related to their roles, including stress, role conflict and ambiguity, tasks, satisfaction levels, and leadership. The results indicated that while most deans liked their work environments, many were experiencing higher turnover, lower productivity, and burnout as a result of role conflict and role ambiguity. In addition, deans in the 1990s faced high levels of environmental turbulence as government cutbacks were experienced around North America.

Wolverton, Gmelch, Montez, and Nies (2001) reiterate the point that the role of deans has shifted from a primarily student-focused one, to one which today encompasses many responsibilities, ranging from budget management to external public relations. Montez and Wolverton (2000), in a recent study of deans, suggest that as additional roles are created for deans, few roles are eliminated. Deans, they summarize, are seduced just like everyone else by the

belief that they can squeeze more responsibilities into the unbending resource of time.

Montez and Wolverton (2000) surveyed 695 deans from 360 universities (both private and public), from faculties of education, nursing, business, and liberal arts. Two questions were posed to these deans, the first asking them to identify and rank the biggest challenges they would face in the next three to five years, and the second asking how effectively the deans felt they would meet these challenges. The deans identified seven categories of challenges, ranking them from greatest to least challenging: fiscal, administration, curriculum and program development, faculty, technology, personal balance, and diversity. This study indicates that the structure of a dean's role may be shifting again.

Whereas faculty issues were seen as the most important responsibility in the mid to latter part of the twentieth century, the degree of challenge associated with this role is not ranked in the top three listed above. We can't tell from this survey, however, whether the deans' interpretations of challenge and of importance are interchangeable.

Of particular interest and significance to my research is the fact that deans view their fiscal role as the most challenging. Of additional significance is the deans' ranking of their effectiveness in meeting this challenge. Of the seven key challenges identified, effectiveness in dealing with finances placed second to last.

Montez and Wolverton draw several implications from their study. First, the new constitution of the role requires that deans must continually train and

develop their skills. Second, personal balance is considered essential to cope with the new role, and universities must reevaluate the job. Third, Montez and Wolverton believe that each of the seven challenges represents a job in itself, and that the role of dean might be better served by partnerships of equals, rather than deans acting as the 'sole proprietors' of the unit.

Additionally, current literature (Gmelch et al., 1999) suggests that the growth, challenges, and ambiguity of a dean's role over the past century have made deans more like chief executive officers of their units. Wolverton et al. (1999) reinforce this notion, depicting today's deans as "politically astute and economically savvy" (p. 82).

Montez and Wolverton (2000) suggest that leadership in 'complex organizations,' (corporations, I assume), be studied so that deans may learn how to deal more effectively with the challenges they face in today's university environments. Thus, I take the lead from Montez and Wolverton to introduce management roles and leadership theory into the literature on deans' roles.

### **Theory of Management Roles**

Earlier studies (Morris, 1981; Tucker & Bryan, 1988) maintain that the principles of for-profit management cannot be applied to deans due to the nature of the 'product' and 'producers' of a university. Unlike in business, where the production of products and services can be "turned into a science," in a university the dean must manage in an environment that is possibly the "most fragile and complex of all social organizations" (Tucker & Bryan, 1988, p. 170).

Morris argues that the measurement of a university arises from the internal process of faculty input and the internal operations of the university, rather than from an external product. These writers suggest that measuring the output of a university is a near impossibility. To paraphrase Morris, the deans operate in ignorance of the economic value of their efforts. Though this theory arose before the days of unrelenting fiscal restraints and a seriously strained role description, we could make the same statement today, as the measurement of not-for-profit outcomes is still an area of much confusion (Herzlinger & Nitterhouse, 1994).

Notwithstanding his earlier stance against the applicability of modern management theories, Morris (1981) emphasizes the need for leadership, planning, organization, and control, which interestingly parallel traditional management functions (Koontz & O'Donnell, 1972). Tucker and Bryan (1988), too, add the word 'manager' to the dean's role. Therefore, despite the stance against using for-profit management principles, the notion of their relevance is seen creeping into this earlier literature.

On the suggestion that deans are now equivalent to CEOs, I address current theories by Mintzberg (1973) and Kotter (1982), which expand upon the traditional theories. Their works detail two of the most widely recognized theories, known as the 'current view of managerial work' (Luthans, 1988). Though these theories are based primarily on the observations of five and fifteen managers/CEOs respectively, they have yet to be refuted.

Mintzberg (1973) developed a set of roles after studying and observing five chief executive officers, and incorporating empirical studies of other

managers. His research led to major conclusions about, and a better understanding of, managers' roles (Macintosh & Williams, 1992). One conclusion was the recognition that managerial work cannot be turned into a science, whereby difficulties are solved with precise prescriptions. Looking back at Tucker and Bryan's resistance to applying the science of management to academic deans' roles, due to the fragile and complex environment of universities, we can make comparisons with Mintzberg's discoveries. He theorizes that managers of for-profit business hold positions of enormous complexity in increasingly complex organizations; thus we recognize that the differences between deans and managers may not be as profound as once thought.

Mintzberg categorizes ten roles of managers into three groups: interpersonal roles, informational roles, and decisional roles. Specifically, the manager is a figurehead, leader, and liaison in the interpersonal role. The informational role requires the manager to monitor and disseminate information, and to act as a spokesperson. Finally, in the decisional role, the manager acts as an entrepreneur, a disturbance handler, an allocator of resources, and a negotiator. No doubt, the traditional responsibilities of leading, planning, organizing, and controlling are present in these roles. What Mintzberg has done, however, is provide a much clearer picture of the manager's role.

Mintzberg indicates that a substantial body of empirical work exists to support the commonality of the ten roles to the position held by all managers. As this thesis is examining the effect of a system on the role of the academic dean,

Mintzberg's work is helpful, since roles are identified as "an organized set of behaviors belonging to an identifiable office or position" (p. 54). A role is a component of the position, not of the individual manager's (or in this study, dean's) character.

While these roles relate primarily to the business world, Robbins et al. (1996) stress the many similarities between for-profit and not-for-profit decision-makers, emphasizing that the primary difference between them is the measurement of performance, since managers in not-for-profit organizations don't usually "face the market test for performance" (p. 13). Due to the striking similarities, I have incorporated the set of for-profit-managerial roles into the framework of my research.

Kotter (1982) also helps to clarify the role of a manager. His study of fifteen general managers resulted in the description of a set of responsibilities and relationships surprisingly similar to the current scope of a dean's role. He divides the manager's responsibilities into long run, medium run, and short run. The long-run responsibilities address company goals and the securing of key resources -- human, financial, and material -- to achieve the goals. Medium -run responsibilities address the allocation of required resources, and short-run responsibilities focus on the efficient use of the resources and the responsibility for profit.

Kotter (1982) categorizes the relationships of managers as up, lateral, and down. Parallels to deans can be drawn here. While the manager reports 'up' to a boss or board of directors, the dean reports to central administration. Laterally,

the manager may have to coordinate his/her actions with other managers of the organization. Likewise, a dean must coordinate efforts with other deans and institutional support staff. Finally, managers relate 'down' to their subordinates, just as deans relate to their assistants and faculty.

Aside from the profit focus and the securing of resources, these responsibilities and relationships describe the role of a dean in a traditional, centralized university, the focus thus far in this literature review. Examining the theories of for-profit managers' roles, and comparing them to the role of deans in centralized, not-for-profit universities, I find very few differences between the two. As my study addresses deans working with RCB/RCM -- a system originally developed for organizations with a bottom line focus -- I am even more compelled to examine the comparisons between managers' and deans' roles.

Traditional academic deans today are showing high levels of stress and burnout due to the ever-expanding workload and ambiguity of their role (Gmelch et al., 1999), and are facing challenges they have not been trained for (Montez & Wolverton, 2000). Therefore, if the current role of academic dean has in fact evolved into one requiring administrative expertise, this situation must be addressed.

The focus of this literature review now shifts to the system under scrutiny in my research. The evolution, budgetary components, and theories of Responsibility Centre Budgeting/Responsibility Centre Management are addressed in Part Two.

## **PART TWO: RESPONSIBILITY CENTRE BUDGETING/RESPONSIBILITY CENTRE MANAGEMENT**

**Responsibility Centre Budgeting/Responsibility Centre Management (RCB/RCM) is a decentralized form of budgetary control. The use of RCB/RCM has expanded over time. Originating in the mid-1900s in the for-profit sector (Merchant, 1989), RCB/RCM has since found its way into not-for-profit organizations, and of particular interest here, into public universities.**

**Decentralization was introduced into the for-profit sector as a means to improve efficiency and effectiveness. To improve measures of performance, top management delegates responsibility to individual managers of various decision centres within the organization (Horngren, 1982). These managers, who are ultimately responsible for the decision-making of their centres due to their proximity to the work, are granted greater autonomy for decision-making, and are consequently held accountable for the results (Crum & Hoshower, 1986).**

**Two theories help us to understand the notion of decentralization in an organization. First, contingency theory addresses the degree of centralization/decentralization in an organization. Second, agency theory examines the owner/manager relationship within a firm.**

**Contingency theory examines the changes in the external environment and the corresponding changes to the internal structure of an organization (Lawrence & Lorsch, 1969). Contingency theory suggests that the fit between an organization and its environment is unique, and contingent upon a variety of**

factors such as size, the nature of the task or technology, the extent to which the external environment is simple and predictable (vs. complex and uncertain), the goals and objectives, and the kinds of employees and their motives (i.e. professional employees, white or blue-collar workers). Contingency theory has long been considered a fundamental element of organizational design and structure (Dastmalchian & Javidan, 1987). Additionally, contingent factors impact budgetary decisions (Otley, 1980).

Agency Theory (Jensen & Meckling, 1976) examines the association between results and rewards, in the study of contractual relationships between owners and managers of for-profit businesses. Often in these relationships, the owner is unable to observe all of the manager's actions. This results in the phenomenon of information asymmetry, wherein the manager has information about his or her behavior of which the owner is not aware. To confront the problem of information asymmetry, compensation contracts are designed to reduce the possibility of 'moral hazard,' the theory that a manager may be tempted to shirk his or her responsibilities when left to oversee the centre (Antle & Demski, 1988).

While compensation contracts may reward managers of for-profit organizations based on their bottom line performance, the concept in public universities is much more complex due to the absence of profit. Additionally, deans and their faculties face unique contingencies that affect the bottom line of their budgets. This leaves a number of questions unanswered. How is moral hazard prevented in universities, or is it a non-issue given the absence of

owners? Are deans in fact the owners due to their expert status? Is shirking avoided due to this 'expert power' (Daft, 1994)? What motivates deans when personal financial rewards are not in the equation? What contingencies affect a dean's autonomy and accountability?

When a university adopts an RCB/RCM system, the concepts of decision-making and accountability are transferred from central administration to academic deans within their centres, or faculties. Thus, the for-profit objective of decentralizing decision-making is mirrored in the not-for-profit sector, at this stage of the process. The objective, as in the for-profit sector, is increased effectiveness and efficiency. However, the similarities begin to fade when we ask, 'how does RCB/RCM promote efficiency and effectiveness in a system that does not measure net income or market capitalization, and does not provide monetary rewards for excellent financial performance?'

This and other perplexing questions are asked in the following section examining the evolution of RCB/RCM. Unfortunately, very little literature even begins to answer my questions. The remainder of the chapter discusses the budgetary components of RCB/RCM as well as theories surrounding its use in public universities. These areas of discussion, like the previous discussion on the dean's roles, are necessary to provide a solid base for this research.

## **Responsibility Centre Budgeting/Responsibility Centre Management: Origins to Present**

RCB/RCM originated with the emergence of the study of management control (Merchant, 1989). The system is managed through identifiable decision centres (often referred to as 'responsibility centres') to which the components of each responsibility center's budget (RCB) – costs, revenues, or both – are traceable. Within these centres, managers are accountable for the decisions they make, thus balancing the scale of delegated freedom and responsibility (Horngren, 1982). This decision-making process constitutes the RCM portion of RCB/RCM.

Managers in RCB/RCM systems are evaluated on the measurable categories within their control (Baiman & Noel, 1985, Demski, 1994). Solomons' (1965) early theory stated that the evaluation of responsibility centre managers should not include matters outside the center's control, since the evaluation of a manager is often ultimately linked to the actual results compared to the budget of his/her responsibility centre.

These beliefs and theories, however, were originally designed for for-profit organizations. When RCB/RCM was adopted in private universities in the 1970s on the premise of ETOB – "every tub on its own bottom" (Whalen, 1991, p. 2) – a new phenomenon occurred in the academic world. The 'tubs' in this theory are the individual centres within the universities, and the 'bottom' refers to the bottom line of each center's budget. Deans are responsible for revenues, expenses, and the bottom line. Therefore, when we refer to RCB/RCM in universities, we

are technically talking about the 'profit' centre model, although the term 'profit' is misleading.

Zemsky, Porter, and Oedel (1978) pioneered the study of RCM (the acronym used in their work) systems within private universities (Brinkman, 1993), in their discussion of The University of Pennsylvania experiment. This system was implemented in 1973 as a survival technique to respond to the economic decline in the early 1970s. Following the prosperous 1960s, inflation, an unstable economy, and the lessening demand for a college education were creating difficult conditions in The University of Pennsylvania's finances. Decentralization was viewed as a way to "become both smaller and more adaptable to changing circumstances" (p. 232). Based on this new approach, a set of strategies was developed specific to academic planning. These strategies were unique to the academic environment, because the planning committee believed that existing managerial models developed for the business world could not work in a university setting. They felt that universities exist to "[pursue] knowledge through teaching and research" and are "not subject to stable production functions that can be optimized by the strategic application of scarce resources" (p. 233). A balance between department and faculty "independence and responsibility" was critical in the new system. These centres now bore responsibility for their own income and expenses and independently decided what actions they needed to take. In all, the intention was a "more effective use of ever scarcer resources" (p. 234). This largely descriptive literature, without

empirical evidence, does not indicate that a more effective use of scarcer resources actually occurred.

RCB/RCM (and versions thereof) spread to other private institutions, such as The University of Southern California, Stanford University, and Harvard (DeHayes et al., 1994) for over a decade prior to the initial implementation in a public university.

The first public university to implement an RCB/RCM system was Indiana University-Purdue University Indianapolis (IUPUI), in 1989 (Stocum & Rooney, 1997). The change was led by Chancellor Gerald Bepko and Thomas Erlich, President at that time and previously Provost at The University of Pennsylvania. Erlich's vision was to move the decentralization of university finances into the world affected by the public dollar (Whalen, 1991).

Whalen recorded the accounts of Ehrlich's initiative in his text, *Responsibility Centre Budgeting, An Approach to Decentralized Management for Institutions of Higher Education*, believing that the change about to be implemented would be momentous and memorable. He believed that public universities, like the private sector, could achieve greater levels of effectiveness and efficiency with RCB/RCM. However, the challenge of measuring effectiveness and efficiency exists in a university (Henke, 1988). Efficiency in the for-profit sector has traditionally been measured by comparing inputs to outputs. Effectiveness is essentially the output of the organization. Not-for-profit organizations, however, have great difficulty applying quantitative measurements to what are invariably qualitative outputs, for example, a 'useful education' (Weir,

1984). Determining and measuring what a not-for-profit organization actually produces and achieves with its inputs, is an intrinsic problem (Vinter & Kish, 1984).

This study does not attempt to create formulas for the dubious areas of effectiveness and efficiency, but rather focuses on the effect that this traditionally for-profit budgetary system has on the academic deans. As the manager in an RCB/RCM system ultimately exerts the effort to achieve the outcome, to then reap the reward, the process raises questions when the second and third components of the equation cannot be easily measured. Deans are in essence the fulcrum of the system, exerting the effort. If we are able to understand the effect of RCB/RCM on their role, a piece of the puzzle will be found. Much more research will be needed to allow us eventually to put the entire puzzle together, and to understand the use of RCB/RCM in universities to the extent to which we are able to understand its use in the for-profit sector.

Looking at this study, we see that while compensation contracts may reward managers of for-profit organizations based on their bottom line performance, the concept in public universities is much more complex due to the absence of profit. Additionally, deans and their faculties face unique contingencies that affect the bottom line of their budgets. Therefore, the theories that exist for the for-profit sector are not easily transferred to not-for-profit organizations. This leaves a number of questions unanswered. How is moral hazard prevented in universities, or is it a non-issue given the absence of owners? Are deans in fact the owners due to their expert status? Is shirking

avoided due to this 'expert power' (Daft, 1994)? What motivates deans when personal financial rewards are not in the equation?

Olson's (2000) study of Agency Theory in not-for-profit organizations attempts to answer the question of motivation, with respect to private universities. Survey responses were received from forty-three independent American colleges and universities in his study. Olsen theorizes that managers of these institutions are motivated to pursue their own interests, which for those in universities, he suggests, could be the motivation to educate students.

The literature that is available concerning RCB/RCM in universities offers readers a comprehensive description of the processes of RCB/RCM (Lang, 1993; Whalen, 1991), and a number of theoretical viewpoints on the advantages and disadvantages of RCB/RCM (Adams, 1997; Agostino, 1993; Bepko, 1990; Cantor & Courant, 1997; Fuchsberg, 1989; Heath, 1993; Meisenger, 1994; Stocum and Rooney, 1997). Two empirical studies (DeHayes et al., 1994; West et al., 1997) provide generalizations of the criteria necessary for RCB/RCM to work, and the general consensus of the system by deans. None of these studies address the very difficult questions concerning efforts, outcomes, and rewards. However, they do provide a framework on the basis of which I am able to move forward in my research.

Whalen and Lang refer to the spread of RCB/RCM throughout public North American universities, modeled on its use in private institutions. Public universities such as Indiana University-Purdue University Indianapolis, The University of Toronto, the University of Michigan, Ohio State University, Cornell

University, Washington University, and the University of California–Los Angeles have adopted one form or another of this budgeting system (Lang, 1993). The University of Lethbridge adopted a version of RCB/RCM in the 1994/95 fiscal year.

These universities all espouse variations on the original theme of RCB/RCM, always with the commonality that some of the “old, centralized control” remains while decentralized budget accountability is added in one form or another (Agostino, 1993, p. 23). In recognition of the fact that different institutions have implemented varying degrees of RCB/RCM and use a variety of titles (West et al., 1997), The National Association of College and University Business Officers in the United States (NACUBO) defines Responsibility Centre Budgeting/Responsibility Centre Management as follows: “institutional financial management systems having decentralized financial accountability for both revenues and expenses and incentives for the leadership of the academic and nonacademic units to achieve positive financial performance” (p. 25).

The evolution of RCB/RCM over the past fifty years, to its existence in public universities today, presents many unanswered questions, as the links in the process of RCB/RCM lose their clarity in the not-for-profit sector. The fraction of RCB/RCM in public universities that is understood and covered in the literature is the budget itself. Dean's decisions pertaining to revenue, expenses, and carry-forward are critical in an RCB/RCM system.

### **Budgetary Components of Responsibility Centre Budgeting/ Responsibility Centre Management**

In NACUBO's definition of RCB/RCM, revenues and expenses are identified as the areas for which deans are accountable. Whalen (1991) stresses that this new level of accountability requires clearly specified rules for the allocation of revenue to the units. One primary revenue category is government funding; however, universities everywhere are seeing a decline in these funds. Whalen stresses that a mechanistic approach to the allocation of government funding is a mistake since central administration is then unable to set priorities, make judgments regarding programs, or respond to academic needs. This situation creates a dilemma in an RCB/RCM system, however, as the extent of control by central administration, including the resulting effects on individual units and their decisions, is arbitrary. Whalen states that the control should be "adequate" but not "excessive." Lang also emphasizes the importance of carefully linking government funding to a center's cost structure.

Another revenue category of fundamental importance is tuition revenue and fees. Deans are accountable for this revenue in an RCB/RCM system; this is perhaps one of the most significant elements in the transition from traditional fund balance accounting to RCB/RCM. Where tuition and fees were once lumped into a university-wide revenue fund, RCB/RCM allocates tuition and fees to the academic units teaching the courses and providing the services. Traditionally, Canadian universities regard the generation of revenue as a

responsibility of central administration (Lang, 1993). With RCB/RCM, however, individual centres are responsible for their own revenues.

Deans must also understand the other half of the income statement -- expenses. A 'pure' system of RCB/RCM works on a full-cost approach, which means that responsibility centres are allocated all of their expenses, direct and indirect. The full-cost approach varies from traditional fund accounting, in which the procedure is to charge units only for direct costs, such as salaries and supplies. Additional costs borne by centres using the full-costing method are those costs originally assumed to be 'free goods.' Two examples of 'free goods' are the use of space and the center's costs associated with administrative departments. Whalen (1991) prescribes that the cost of these indirect items be charged to units via assessments and/or charges. Assessments are administered in the form of taxes to cover the use of public goods and services, whereas charges are specific costs that can be traced back to a user.

The matching of revenues and expenses is critical in an RCB/RCM system. In a pure model, each faculty/school deducts its total expenditures (both direct and indirect) from its 'earned income' (student fees + indirect cost recoveries + other income). State appropriations are then given where needed to balance centre budgets to zero. Lang (2001) emphasizes the importance of carefully connecting revenues to costs. He evaluates the unfortunate experience of the University of Toronto - Scarborough campus "RCB/RCM experiment." A serious lack of transparency posed considerable problems at the University of Toronto's Scarborough campus when the link between government funding

formulas and cost structures of the institution was not clear. Lang addresses a problem with government funding, that the funding formulas used typically have a 'homogenizing effect.' In other words, the calculations of formulas do not address the individual nature of programs. Therefore, the money attributed to the various programs may in fact be an unrealistic sum, when the contingencies of the program are examined more closely. Ultimately, this lack of connection between funding and the actual cost structures was a terminating factor for the 'experiment' at the University of Toronto – Scarborough campus.

Responsibility Centre Budgeting/Responsibility Centre Management also requires that a tax system be put in place to assist those faculties and schools that are less self-supporting. Faculties and schools are taxed in order to create what is known as a 'subvention pool,' which is then allocated according to need by central administration.

Theoretically, the responsibility for revenues and expenses should allow deans to control their bottom line, which in an RCB/RCM system is referred to as the 'carry-forward balance.' To date, the most recognizable incentive of the RCB/RCM system, in the literature (Stocum & Rooney, 1997, Whalen, 1991), is the principle of carry-forwards. The carry-forward principle allows year-end balances to be carried over to the next fiscal period; this is a distinguishable difference from a traditional fund balance system. An example of the benefit created by the carry-forward principle is seen in the School of Science at IUPUI. With carry-forward funds, the dean was able to:

- create more faculty positions

- start the funding on new research programs
- strengthen academic programs
- acquire new research and teaching technology, and
- fund renovations (Stocum & Rooney, 1997).

We see indications, then, that deans are motivated to create positive carry-over balances to cover expenditures as they see fit. Long-range planning becomes a possibility, and deans may seize opportunities as they arise. As negative carry-over balances are also carried forward, deans are motivated to avoid deficits. But again, I reiterate that this system does not operate as systematically in a university as in the for-profit sector, and we do not yet fully understand the motivating force that encourages deans to perform in such a system. Unlike the for-profit sector, there exists no mechanism to measure outputs, and thus reward deans with individual material gains.

While the budgetary components of revenues, expenses, and carry-forwards help us to understand what the dean is dealing with and how RCB/RCM is intended to work in a university, these components merely touch the surface of the underlying principles and concepts necessary for such a system to work. The current principles and concepts of RCB/RCM, and the arguments for and against the use of RCB/RCM in public universities, are outlined in the following review of current theories.

## **Theories of Responsibility Centre Budgeting/Responsibility Centre Management in Public Universities**

Whalen (1991) presents a set of nine concepts he believes necessary for RCB/RCM to work effectively, based on the primary principles of 1) decision-making, 2) motivation, and 3) coordination. These principles and concepts currently serve as the primary guidelines in the literature. Many of the principles and concepts that Whalen lists were developed by Jon Strauss and John R. Curry, who were members of the Budget Incentive Task Force at the University of Southern California during the implementation of RCB/RCM at that university. These principles and concepts were based on the common thread that the point of decision-making and the point of implementation must be brought together, the underlying theme guiding RCB/RCM.

Whalen (1991) theorizes that proximity, proportionality, and knowledge are the critical concepts of decision-making. Proximity relates to the belief that the best decisions are made at the point of implementation. Proportionality refers to size: bigger universities are thought to be more suited to decentralization. Finally, the concept of knowledge suggests that better decisions are made in information-rich environments.

The principle of motivation addresses the concepts of functionality, performance recognition, and stability. Functionality specifies who is responsible for what, in order to provide clearly defined authority to heads of centres. Performance recognition is a means of encouraging and rewarding effective performance within units and in the institution as a whole. Lastly, the concept of

**stability proposes that planning and performance are of higher quality in stable environments.**

**The final principle, coordination, encompasses the concepts of community, leverage, and direction. Community recognizes that universities are 'collective human endeavors' and that no unit should isolate itself from the mission of the entire institution or from other units: the parts must relate to the whole and to one another. The concept of leverage addresses the delegation of responsibilities and decision-making. Responsibilities at the institutional and local levels must be clearly established for RCB/RCM to work. While many decisions are passed down to the units, some decisions are better left at the central administrative level. The final concept, direction, stipulates that a university must have both long- and short-run objectives.**

**A number of Whalen's principles and concepts are supported in the research of West et al. (1997), which lists seven common factors for the use and effectiveness of RCB/RCM. A survey was administered to 600 American institutions of higher education, with 235 responses, 68% from public institutions. West et al. report that the majority of respondents using RCB/RCM experienced very successful results. The following elements were found to be common to these successful respondents:**

- Support is given from the top executive and board member, all the way down the line.**
- A communication strategy is in place that allows the responsibility centre heads to understand the benefits of RCB/RCM.**

- **RCB/RCM is tied to organizational academic and fiscal objectives.**
- **Measurements are set for academic and fiscal performances.**
- **Constant communication is necessary, allowing for feedback and correction.**
- **Complete implementation of an RCB/RCM system takes many years, and supporters, opponents, and neutral parties should be reminded of that fact.**
- **Those who have successfully implemented RCB/RCM do not overlook the importance of managing change, as failing to manage change can often precede system failure.**

A number of articles have been written (Adams, 1997; Agostino, 1993; Bepko, 1990; Cantor & Courant, 1997; DeHayes et al., 1994; Fuchsberg, 1989; Heath, 1993; Lang, 1993; Stocum & Rooney, 1997; Weir, 1994; West et al., 1997; Whalen, 1991) on the advantages and disadvantages of RCB/RCM in many of the areas highlighted by Whalen (1991) and West et al. (1997). The primary points cited in the pros and cons of RCB/RCM are shown in Table 1, and then discussed at further length.

**Table 1  
Pros and Cons Expressed Regarding Responsibility Centre Budgeting/  
Responsibility Centre Management**

Better decision-making as decisions are made 'at the source'	<b>Decision-making</b>	Decisions are solely monetary
Efficient use of scarce resources Better teaching and research Creative program scheduling	<b>Efficiency</b>	Fractionalizes universities – needless competition between centres for resources Increases teaching loads, eliminates professors, recognizes only funded research Repetitive service courses
Surpluses are carried forward – allows for long-range planning	<b>Finances</b>	Financial emphasis – corporate mentality
Better understanding of institutional priorities	<b>The University as a whole</b>	Detracts from the 'real' purpose of universities – distinguishes between have and have-not faculties
The argument for size is still out, with some writers theorizing that larger universities benefit more from RCB/RCM, and others claiming size is not a restriction to the effective use of RCB/RCM	<b>Proportionality (Size of both universities and faculty/school)</b>	Too much information drives each dollar in universities with many centres Asymmetry between enrollments and costs may exist in small faculties/schools The larger the faculty/school, the longer the implementation of change may take

One purpose of RCB/RCM is to create awareness in those “doing the real work” of the opportunities that they miss or create by their choices (Cantor & Courant, 1997). The accountability of deans and chairs using RCB/RCM pushes them to track their spending closely and to determine if their decisions are

justified (Stocum & Rooney, 1997). These points highlight the advantage of decision-making in RCB/RCM.

A strong argument in favor of RCB/RCM is the more efficient use of scarce resources, resulting from the improvement in decision-making (Stocum & Rooney, 1997; Whalen, 1991). By allowing academic units to keep their revenues, and charging them for their costs, RCB/RCM provides an incentive to improve the efficiency with which resources are used. These improvements then work towards the overall missions of the University (Cantor & Courant, 1997). As we have seen, however, the for-profit logic of RCB/RCM does not transfer smoothly to universities, where efficiency is much more difficult to measure. Despite the ambiguities of the system, the premise of RCB/RCM recognizes that academic deans are usually the best evaluators of the consequences of their fiscal behavior. Therefore, giving them responsibility for their revenues and costs should lead deans to make better decisions about what can be done with what is available (Cantor & Courant, 1997). Stocum and Rooney (1997) suggest that RCB/RCM motivates improved teaching and research, and provides more courses complemented with creative scheduling. These program enhancements should ultimately increase the quality and financial resources of the units.

Issues of efficiency not seen as advantageous by many, however, are the real threats that RCB/RCM may create pressure to reduce numbers of professors, increase professors' workloads, eliminate programs with small numbers of students, and recognize only research that is funded (Adams, 1997). Heath (1993) warns of new technologies not being implemented into programs

due to their high cost. He also warns that the faculty/student ratio could rise under RCB/RCM, and that service courses may be duplicated in programs to avoid paying costs to another unit and to generate income.

The threat of course duplication was felt in the Department of Speech Communications at IUPUI. Agostino (1993) wrote that the Department of Speech Communications was far too dependent on a multi-section offering of one of its communication courses, a course that business students were required to take. If the course were to be dropped as a requirement, or the school of business were to create their own course, the financial base of the department would be in serious jeopardy.

The focus on finances and income is perhaps one of the strongest arguments against RCB/RCM, posing the question, "What is the purpose of universities?" Are they profit-generating businesses, or institutions with higher purposes whose primary focus should be education? The rationale for RCB/RCM has been criticized for 'fractionalizing' universities, reducing their ability to fulfill their core mission of education, culture and social purposes (Adams, 1997). Higher purposes are presumed to disappear. Adams criticizes Whalen (1991) for focusing on monetary decisions. On the other side of the financial argument, however, is the factor of the awareness that RCB/RCM brings to the use of 'free goods.' These cost items, originally borne by the university, are invisible to decision-makers under fund balance budgetary systems (Bepko, 1990).

Perhaps one of the greatest financial strengths and motivators of RCB/RCM is the carry-forward component, which allows deans to develop long-range plans (Stocum & Rooney, 1997). Deans are granted greater control of their funds under this long-range planning, as they do not feel compelled to spend their budget by year-end.

Another issue in the debate over RCB/RCM is its effect on the university as a whole. Bepko (1990) states that long-range planning and increased activity can be achieved at the institutional level, without additional funding in this system, due to the emphasis placed on institutional priorities. However, problems can arise when financial decisions and institutional priorities set forth by central administration are not shared by the centres. Conversely, financial plans made within centres may not be the most beneficial for the entire organization.

If RCB/RCM and concrete educational missions are not closely linked, a corporate mentality with excessive entrepreneurial activity may arise, and academic quality may be sacrificed for the sake of money. The emphasis that RCB/RCM places on revenues and costs has caused some professors to feel as if they are part of a business firm, whose primary focus is to maximize profits (Cantor & Courant, 1997). Adams (1997) criticizes Whalen's disregard for faculty members in his view of RCB/RCM, a complaint shared by Heath (1993). Fuchsberg (1989) points to the criticisms of the profit focus of RCB/RCM, citing needless competition between faculties/schools, the questioning of the real purpose of universities, an increase in corporate thinking, and the distinction between 'have' and 'have-not' faculties.

Another concern regarding RCB/RCM's effect on the university as a whole is the argument that dissonance may occur in an organization when a move is made away from fund balance accounting (Ezzamel, 1994). Ezzamel discusses the argument that these models are viewed as more harmonious by some, since they restrict bargaining for resources by allocating funds across sub-units in a stable manner.

Finally, there are conflicting theories about the size a university or faculty should be in order for decentralization to be effective (DeHayes et al., 1994; Lang, 1993; Stocum & Rooney, 1997; Weir, 1984; West et al., 1997; Whalen, 1991). DeHayes et al. refer to the fact that the regional campuses at Indiana University were not used in the initial trial of RCB/RCM due to their 'relatively smaller campus size'. Whalen and Lang support the use of RCB/RCM in larger, complex, multi-campus universities. Stocum and Rooney (1997) believe that both small and large public universities can use RCB/RCM effectively. A study by NACUBO found that RCM was not restricted to universities with budgets in excess of \$550 million (West et al., 1997). The relationship between the size of the organization and the number of centres is important, also, as Weir (1984) suggests that no less than 5 percent of an organization's budget should go to each centre. This prevents the dissemination of funding to a level whereby information becomes overwhelmed by detail.

In addition to the size of the university, the size of faculties in terms of enrollment numbers is a complex contingent factor when an asymmetry between

enrollments and costs arises (Lang, 1993). When marginal costs exceed the additional enrollment revenue, problems arise.

To conclude the findings from the literature, the results of a five-year assessment of RCB/RCM at IUPUI encompass some of the views from both sides of the RCB/RCM argument. DeHayes et al. (1994) interviewed forty academic deans, in addition to administrators, the president of IUPUI, and senior financial officers. This study interpreted the results as they pertained to the overall impact of RCB/RCM, the positive and negative effects of the system, and recommended changes. Their findings are interesting, and support the current literature.

The interviewees agreed that the elimination of reckless spending of year-end budgets in order to use all allocated funds was a very positive result. Centres now used funds more responsibly, as the possibility of losing them was gone. Current savings created greater flexibility for future spending in the centres. The carry-forward aspect of RCB/RCM was regarded as a 'must' in order to allow the system to work.

Despite the positive reviews, respondents also voiced concerns. They worried that the move to RCB/RCM could hurt the quality of academia at IUPUI as the focus shifted to financially driven decisions. Additionally, the method by which academic centres were charged for support services required better understanding by the centre heads. An adjudication process was also believed necessary to resolve the problem of redundant courses. Some deans believed that issues related to program and course elimination should be out of the

decision-making scope of RCB/RCM. Others did not like the new degree of accountability placed on them. Some expressed a need for greater expertise amongst the fiscal officers, more long-range planning, and a better exchange of information between all parties. Finally, a more frequent review process was requested.

Despite the concerns, however, none of the forty academic deans wished to return to traditional fund balance accounting. Many of the faculty members who attended open forums were in favor of the change, also. Thus the experience at IUPUI, with its accolades and concerns, appears positive, overall.

#### **Conclusions of the Literature Review**

In conclusion, my search for literature on the role of academic deans and Responsibility Centre Budgeting/Responsibility Centre Management resulted in the following discoveries. First, the literature concerning academic deans is scarce. While a resurgence of research is currently underway by a small group of academics, the dean's position, which is of paramount importance to a university, lies largely unexplored and undefined. Emerging from the current studies are signs that the ambiguity of the role is causing significant challenges, stress, and a need for change. An opportunity therefore exists to develop a generalizable framework from which the role of academic deans can be conceptualized.

A second discovery was the lack of empirical studies on RCB/RCM in public universities. The limited body of literature on RCB/RCM offers

suggestions for implementation, descriptions of components, advantages and disadvantages, but very few empirical results or effects of the system. What we do know is that an RCB/RCM system in public universities leaves many unanswered questions due to the ambiguities related to effectiveness, efficiency, and incentives. This study attempts to begin to address these little understood areas, by providing a foundation examining the effects of RCB/RCM on the drivers of the system, the academic deans.

The third discovery is perhaps the most important with regard to my research. No literature offers empirical results addressing the effect of decentralized budgeting on the role of academic deans. Nowhere in the literature is the connection between deans and RCB/RCM given more than a short paragraph. Whalen (1991) advises that deans must “appreciate and understand” the system. Lang (2001) theorizes that in some cases academic deans in RCB/RCM systems have been entrusted with the responsibilities of chief executive officers, while in other cases, the dean's role has not changed, although the responsibilities of the support staff have. Whalen and Lang both suggest that the dean's role requires even greater communication and coordinated decision-making in an RCB/RCM system, due to its emphasis on revenue generation and management, as well as the importance of coordinating the university's goals. I address these suggestions in my research.

From the available literature, I was able to construct a framework (Figure 3) from which to go forward. In this framework I have incorporated the generalized, traditional budgetary role of an academic dean, the corresponding

budgetary roles of managers, and the components and principles of RCB/RCM. Between the realms of the deans'/managers' role and RCB/RCM lies a large void, which presents the question, "what effect does RCB/RCM have on the role of an academic dean?". I intend to help fill this void.

Traditional Academic Dean's Role as Resource Handler	A Manager's Role as Resource Handler	Void in the Literature	RCB/RCM
<p>In a traditional centralized university deans use funds passed down from central administration. These traditional academic deans act as:</p> <ul style="list-style-type: none"> <li>▪ Budget preparers</li> <li>▪ Resource allocators</li> <li>▪ Resource controllers.</li> </ul>	<p>Mintzberg and Kotter (1982) refer to resource allocation and the efficient use of resources within the manager's role. Thus, we see similarities between traditional deans and managers.</p>	<p style="text-align: center;">What effect does RCB/RCM have on the role of the academic dean?</p>	<p>Components</p> <ul style="list-style-type: none"> <li>▪ Revenue</li> <li>▪ Expenses</li> <li>▪ Carry-forwards</li> </ul> <p>Principles</p> <ul style="list-style-type: none"> <li>▪ Decision-making</li> <li>▪ Motivation</li> <li>▪ Coordination</li> </ul>

**Figure 3**  
**Framework for Research**

## **CHAPTER THREE: CASE SYNOPSIS**

The case studied in my research is The University of Lethbridge (U of L), situated in Southern Alberta, Canada. I chose to use the U of L in my research, because of its implementation of an adaptation of RCB/RCM in the 1994/95 budget year. To capture the essence of the university from the mid 1990s to present, the external and internal environments are addressed, as evidence suggests that these two factors affect the use of budgetary information (Otley, 1980).

### **External Environment**

Concurrent with the adoption of RCB/RCM at the U of L, the provincial government began funding cuts that would take place over three budgetary periods, from 1994/95 to 1996/97. These cutbacks totaled twenty-one percent for the U of L over the three periods: eleven percent in 1994/95, seven percent in 1995/96, and finally, three percent in 1996/97. Seamus O'Shea, the U of L's current Vice-President Academic, who held this position at the time of the cutbacks, indicated that the other ancillary costs passed down to the university from the government resulted in an effective decrease in funding of approximately thirty percent.

The U of L was not the only university to experience reductions in government funding. Throughout Alberta, and across Canada, universities were facing cutbacks (Tavenas, 1993). Federal transfers for health, education, and

social welfare were consolidated into one payment in 1996, and between 1996 and 1999, nearly \$7 billion in transfer cuts were experienced across Canada (Confederation of Alberta Faculty Associations, 2000). Some believe that the move by seven of the ten provinces to reduce their expenditures on post-secondary education in the 1994/95 budget year was a direct result of these cuts (Canadian Association of University Teachers, 2000-01). Alberta's dollar cuts were the second largest in Canada.

The adoption of RCB/RCM at the U of L clearly came at a time of external financial turmoil. The government reduced not only its funding but also the method of allocation. Grants, which were traditionally allocated using an enrollment formula, were now given in block sums. Additionally, base operating grants and capital renewal grants for the province's universities were rolled into one single base grant (University of Lethbridge Planning and Three Year Budget Forecasting Manual, 1994).

In 1995, through Alberta Advanced Education, (now known as Alberta Learning), the government of Alberta introduced an innovative grant program known as ACCESS. This fund "provides funding for incremental costs associated with enrollment expansion in subject areas that are a high priority based on high student and labor market demand." (Alberta Learning, 2001). ACCESS funding does not go into base budgets, but rather into programs encouraged by the government (CAFA, 1998).

### **Internal Environment**

The structure of the university is relevant in this study, as role ambiguity increases with the complexity of a university (Wolverton et al., 1999).

Understanding the internal structure is also important to the study of accounting systems, because of contingent factors facing organizations (Otley, 1980). Thus, we must recognize the internal environment at the U of L when assessing the effects of RCB/RCM on the role of the academic deans.

### **University Facts**

The U of L is a liberal arts university offering undergraduate degrees in arts and science, education, fine arts, health sciences, and management. Graduate degrees are also granted through the newly created School of Graduate Studies (2000), although master's degrees have been available from the U of L since 1982 in the Faculty of Education, and since 1991 in special cases through other faculties. The year 2000 also marked the initiation of doctoral studies in the field of neuroscience, with other fields to be added. The Faculty of Management also developed a Master's of Science Program in 2000.

Full-time equivalent (FTE) enrollment (a calculation which encompasses students taking full course loads, part-time students, and graduate students) in the 1999/2000 academic year was 6,358 students, a thirty-five percent increase since RCB/RCM was implemented in 1993 (University of Lethbridge, 1999-2000 Facts Book).

**Responsibility Centre Budgeting/Responsibility Centre Management at the University of Lethbridge**

The U of L faced numerous challenges and changes in the 1990s. Enrollments increased, exceeding the funded enrollment levels. Expenses had to be cut due to the reduction of provincial grants. Salaries were rolled back five percent, benefits were reduced, and approximately 125 full-time positions were eliminated through layoffs, attrition, and early retirements.

With the challenges came a change to the tuition allocation model. The central administration at the U of L examined the literature and recognized that, while typically in times of environmental turmoil centralized universities tend to centralize even more, some private universities and a few public universities were now decentralized. Vice-President O'Shea indicated that the U of L decided to decentralize based on the successes of the private universities (i.e., the University of Pennsylvania and the University of Southern California.) The expectation was that decentralization would help the University of Lethbridge through trying times.

On April 1, 1994, central administration of the U of L granted faculties the revenue from their students, based on a three-year average of credit hours from 1991/92 to 1993/94. While deans were granted the tuition and fees for their faculties, they correspondingly bore the responsibility for an increased number of direct expenditures made by the faculty, including merit increments, increases in benefits, and professional development costs. Deans became responsible for the core business of the university – education and research – in their own

faculties. The provincial government's Universities Act in fact mandates that deans act as the CEOs of their units.

Not only was the concept of decentralization an exception for a Canadian public university, but the size of the U of L made it an exception to the rule for implementing RCB. The U of L is a relatively small university. Primarily modeled on large American universities, the theory in the early 1990s was that larger universities were more suitable for RCB/RCM than small universities (Lang, 1993; Whalen, 1991). Thus, the move by the U of L was both bold and innovative. As the theory regarding size could threaten the generalizability of my study, however, I point to the more recent theories and studies which indicate that size should not be, and no longer is, a restriction for RCB/RCM (Stocum & Rooney, 1997; West et al., 1997).

The particular model of RCB/RCM adopted at the U of L is a partial version of Whalen's RCB/RCM model. The U of L named its model the Instructional Fee Allocation Model (IFAM); however, I will use the acronym RCB/RCM throughout this study to prevent confusion. I call the U of L's model a partial version because indirect costs (i.e. utilities, space usage, and support services) are not pushed down to the centre levels. Essential shared services are controlled at the central level, due to their costs and their necessity in every faculty. Central administration is concerned that decentralizing the entire system could spread resources too thin among the various university centres, with negative repercussions.

Quality control also remains at the central level. To ensure quality, the board of directors must have the final say on tenure track positions, because of the long-term commitment and cost of a tenured staff member. Another method of ensuring quality is imposed through the process of decision-making at the university, which is designed to be clear, consistent, fair, and open.

The RCB/RCM system at the U of L is similar to those reported in the literature, which balance the functions of the university between central administration and the faculties. The major areas of responsibility pushed down to the faculties at the U of L are the revenues and direct costs of education and research. These are handled in much the same way as Whalen's (1991) prescribed model.

Under RCB/RCM, the U of L allocates revenue to the faculties as follows: Government funding is allocated to units based on past experience and need (University of Lethbridge Financial Services). Tuition revenue allocations are based on the credit hours in each faculty, calculated on the previous three years. The numbers are reviewed three times a year, and reapportioned as necessary. An 'Enrollment Management Reserve' is available to supplement academic units that experience budget shortfalls due to a decrease in base credit hours. This supplement must be repaid within three years. Conversely, if units exceed their base credit hours, they receive the excess revenue (University of Lethbridge, Planning and Three-Year Budget Forecasting Manual, 1994).

The most significant change in the distribution of revenues, from the introduction of RCB/RCM to the present, is the fact that government grants now

account for only fifty percent of total revenue, compared to seventy-three percent in 1993. Table 2 outlines government grants, and tuition and fees, as a percentage of total revenues from 1993/94 to 1996/97, from directly before to the end of the three years of cuts. To illustrate a more recent position of these revenue categories, I have added 1999/2000 to the bottom of the table. (The remaining revenues in these years were generated from the amortization of deferred capital contributions, recoveries, miscellaneous, investments, gifts and donations, and sales of ancillary services and products.)

**Table 2  
Government Grants and Tuition/Fee Revenue  
as a Percentage of Total Revenue**

<b>Year</b>	<b>Government Grants: Percentage of Total Revenue (Rounded)</b>	<b>Tuition and Fees: Percentage of Total Revenue (Rounded)</b>
1993/94	73%	23%
1994/95	60%	25%
1995/96	53%	24%
1996/97	50%	26%
1999/2000	50%	28%

*(Source: The University of Lethbridge Financial Statements and Supplementary Schedules, 1993/94, 1994/95, 1995/96, 1996/97, and 1999/2000)*

Table 2 shows that the percentage of revenue supplied by tuition and fees has increased by five percent, as a result of both tuition and enrollment

increases. The percentage contributed by government grants, on the other hand, has decreased significantly by twenty-three percent.

In addition to revenues, deans are also responsible for the direct costs of salaries, benefits, vacations, materials and services, leases and contracts, travel, some insurance, some capital purchases, and other miscellaneous direct expenses. To conceptualize the expenses at the U of L, the second column of Table 3 shows expenses as a percentage of total revenues. I have included a third column strictly for salaries and benefits, as they are the largest expense. The percentages shown represent the portion of total expenses allocated to salaries and benefits. As with revenues, I have made a comparison from 1993/94 to 1999/2000 in order to identify changes in expenses from directly before RCB/RCM, to more recent times.

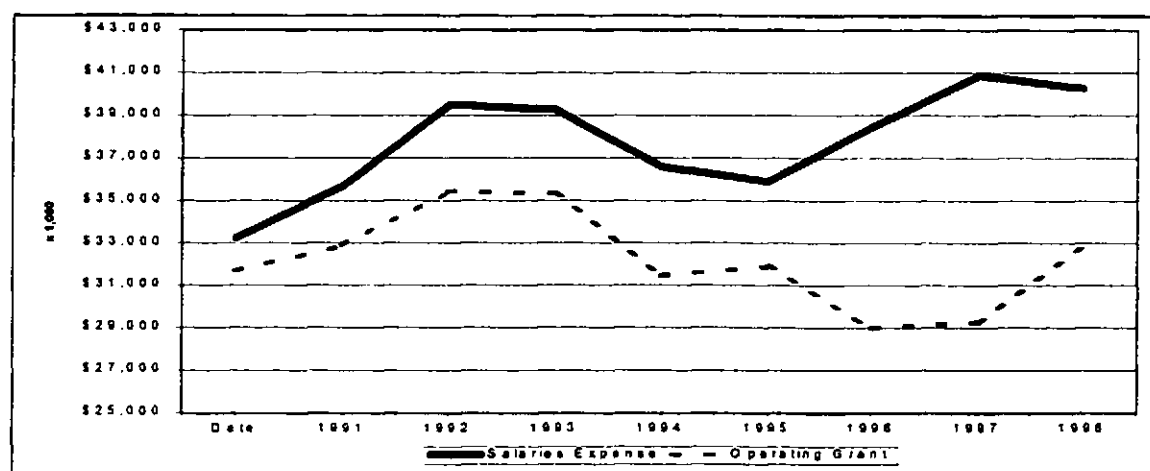
**Table 3**  
**Expenses as a Percentage of Revenue, and**  
**Portion of Expenses Allocated to Salaries and Benefits**

<b>Year</b>	<b>Expenses as a Percentage of Total Revenue (Rounded)</b>	<b>Salaries and Benefits as a Percentage of Total Expenses (Rounded)</b>
1993/94	104%	75%
1994/95	96%	84%
1995/96	88%	68%
1996/97	85%	65%
1999/2000	94%	66%

*(Source: University of Lethbridge, Statements of Financial Position, 1993/94 – 1996/97, and 1999/00)*

Though we cannot easily measure efficiency in universities (Brown & Sprohge, 1987; Henke, 1988), we might conclude that the U of L focused on increasing their overall cost efficiencies during the 1990s. Expenses increased in the last reporting period, however, and within these expenses, the expense for salaries climbed to the highest level for the decade, after declining significantly in the mid 1990s. This may indicate a growing confidence within the university, and also signifies the University's objective to maintain the small class sizes that the University of Lethbridge is known for. When attempting to evaluate efficiency and effectiveness, however, we must bear in mind that the overall objectives and characteristics of the U of L need to be weighed into the equation before reaching a conclusion.

I chose to show the contrast between revenue from the government and expenses, also, in this case synopsis. Clearly the ability of government grants to cover salaries and benefits decreased significantly during the 1990s (Figure 4). This is significant because it indicates the increased need by the U of L to generate more revenue in order to cover costs.



**Figure 4**  
**Unrestricted Base Operating Grants versus Salaries and Benefits at The University of Lethbridge**  
 (Source: University of Lethbridge Financial Statements and Supplementary Schedules, 1991 – 1999)

The final component of an RCB/RCM budget is the carry-forward, which O'Shea says has been something of an issue at the U of L. While carry-forwards are recognized as an incentive of the system, in addition to autonomy, central administration recognizes that the diverse nature of the faculties can cause tension. Carry-forward balances vary significantly among the faculties. Different faculties have different needs. Because of the rolling together of the capital and operating budgets in 1994, faculties requiring large capital expenditures must

now set aside contingency funds to support their growth. While carry-forwards do pose an issue, and create some tensions, central administration feel that the faculties are more cooperative than competitive with one another, and more cooperative than those in many centralized universities.

### **Concluding Remarks**

Obviously government support for higher education has declined substantially in Alberta, and in Canada. It is equally obvious from this case synopsis that the U of L has experienced tremendous growth in tuition revenues, enrollment, and programs since the inception of RCB/RCM. This growth has allowed the university to achieve a positive financial position during difficult times. O'Shea indicates that, while aggressive growth has occurred since RCB/RCM was implemented, central administration monitors and manages the growth to preserve quality, and effective immediately, faces the challenge of restricting further expansion.

## **CHAPTER FOUR: METHODOLOGY**

### **Rationale for Grounded Theory**

Literature and theories addressing both the process of RCB/RCM in not-for-profit organizations, and the role of academic deans in universities, is scarce. No empirical studies have addressed the effects of RCB/RCM on academic deans. Therefore, an opportunity presents itself for research. The scarcity of theories indicates that exploratory research through a naturalistic method is necessary to meet the research objectives of this study. A naturalistic method is appropriate before researchers can pursue quantitative studies of the variables of an RCB/RCM system – efforts, results, and rewards – and document their relationships.

The case in study is the University of Lethbridge. The use of a case allows me to examine an area not understood, in an actual environment. To address the objectives of the research question in this case, the study incorporates the naturalistic approach of grounded theory. This method is specifically designed to allow theories and themes to emerge from collected data. Lincoln and Guba (1985) stress that the naturalistic approach of grounded theory is appropriate when research confronts a lack of prior theories, a multitude of variables, and the absence of clear causal linkages. These are all descriptors of an RCB/RCM system in a public university, and therefore, the objectives of my research question are best met through this methodology.

Additionally, the small sample selected for the research is not suitable for a quantitative study. Five deans provide the basis for the data, and while this does not provide a sufficient sample size for a quantitative study, it does provide a base for a rich, qualitative interpretation of data. The objectives of the research question are best met, at this preliminary stage of the understanding of RCB/RCM in a public university, through a rich, qualitative, theory building method such as grounded theory.

A grounded theory is one derived from data, through a process of data collection and analysis. A preconceived theory is not examined as in so many other forms of research; instead a phenomenon is studied, and a theory emerges from the study (Strauss & Corbin, 1998).

Lye, Perera, and Rahman (1997) discuss the growing use of grounded theory in accounting research, and refer to the need to study accounting phenomena within their natural contexts, as does Siegel (1995), who suggests that accounting does not occur in a controlled environment. Macintosh and Williams (1992) promote the study of budgetary behavior in its natural setting. Thus, the support for qualitative research in the field of accounting reinforces the method chosen here.

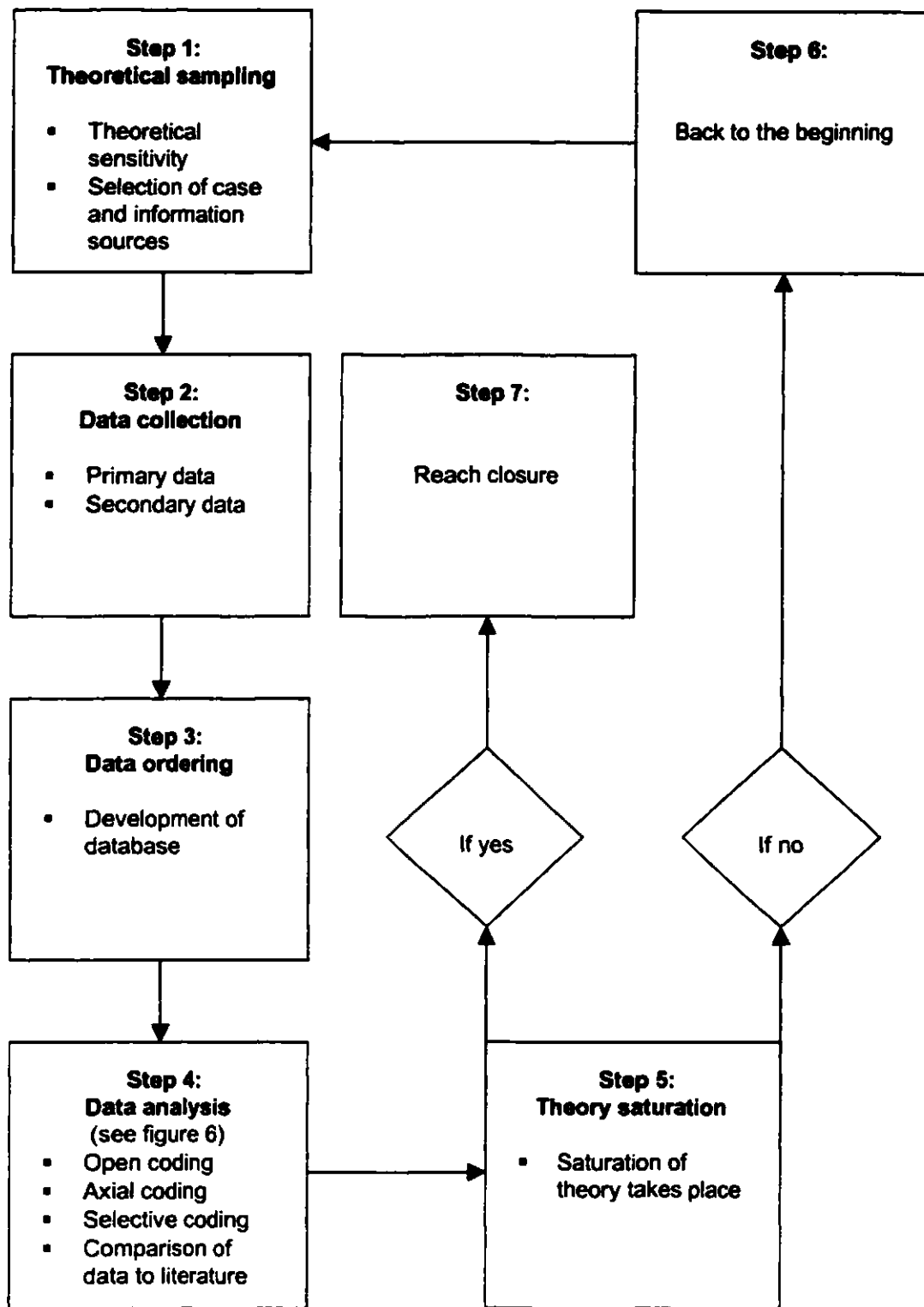
### **Research Methods**

With a research question in place, Pandit (1996) and Strauss and Corbin (1998) state that grounded theory begins with a search through the literature. Though the literature in this field is sparse, what does exist is helpful in

establishing a base from which to go forward and identify themes and develop a theory.

Strauss and Corbin's (1998) methods for analysis are used in the study, which are summarized in the adaptation of Pandit's (1996) flow chart (Figure 5). The flow chart shows the relationships of the various steps of the research process. Grounded theory is commonly referred to as the 'constant comparative method' (Glaser & Strauss, 1967), due to the nature of the intertwining events of a phenomenon. Thus, one must not proceed through the steps too rigidly. The process shown in Figure 5 is merely a guide, whereby flexibility is allowed and encouraged.

Theoretical sensitivity – the researcher's insight, understanding, ability to generate meaning from data, and ability to determine what is and is not pertinent – is a critical element for developing theory and is necessary throughout the entire process (Strauss & Corbin, 1990). To develop this sensitivity, I studied the literature and approached the topic with an unbiased attitude. Since I recognized that there is no "universally appropriate accounting system which applies equally to all organizations in all circumstances" (Otley, 1980, p. 413), the study was intended not to evaluate the system in place, but rather simply to examine how RCB/RCM has affected the role of academic deans at the University of Lethbridge.



**Figure 5**  
**Adaptation of Pandit's (1997) Interrelated Processes of Data Collection, Data Ordering, and Data Analysis to Build Grounded Theory**

The U of L was one of very few Canadian universities to practice decentralization in one form or another in the early 1990s; thus the opportunity to study the phenomenon of this RCB/RCM system in an actual environment was timely. As this study looks solely at the effect of RCB/RCM on deans, all five academic deans at the U of L were interviewed in person. Of the five, three remain in their positions, one has retired, and the other had recently stepped down from the position. The University of Lethbridge offers degrees in education, fine arts, health sciences, management, and arts and science, so my data captures responses by deans of faculties from both liberal arts and professional subject areas.

Each interview ranged from sixty to ninety minutes in length and was conducted during August and September 2000. To protect the identity of the interviewees, I do not include names, faculties, specific courses or other identifying aspects in the quotations selected for my analysis. Quotes are edited where necessary to conceal identifying factors. Specific terms have been either replaced with generic words or left blank.

The interviews were primarily unstructured and informal. I allowed the deans to speak freely, and I interjected only when I needed clarification of a point. I used the probe 'why?' to elicit constructs of greater meaning and relevance to the dean, and the probe 'how?' when an explanation of a large concept was required. This technique of 'laddering' (Stewart & Stewart, 1981) recognizes that some constructs are closer to the core of the study, and that other constructs support the core. When a new or previously mentioned (in

another interview) construct of RCB/RCM or the dean's role was mentioned, I used laddering to get to the essence of the phenomenon. Laddering also reduced bias in my interviews (Stewart & Stewart, 1981), as I was merely probing for more detail, or clarification.

Each interview began with the question "How has Responsibility Centre Budgeting affected your role as a dean at the University of Lethbridge?" To be sure that I gathered all the demographic data I would need from the interviews, I asked 'short face-sheet questions' (DeBurca and McLoughlin, 1996) (Table 4), when necessary. To complement the 'how' and 'why' probes found in the reflective type of questions, informational questions were used when necessary to probe further, for facts, relating to the deans' comments.

**Table 4**  
**Short Question Categories for Interviews**

<p>Short face-sheet questions (demographic in nature): Strictly neutral, factual question, providing only necessary information.          I.e. "How many years have you been a dean with the [ ] faculty?"</p>
<p>Informational questions: Used to develop a sense of chronology and to establish a degree of awareness of the topic.          I.e. "What was that increase?"          "Has there been a lot of recruitment?"          "Did you find that [the] calculation of revenue and expenses led you to carry-forwards that you could predict?"</p>
<p>Reflective and Feeling: Addressed the 'how' and 'why' of the study.          I.e. "What's different now?"          "Did it have any effect on the program?"          "Do you think you've made different academic decisions since RCB/RCM has been implemented?"</p>

McCracken (1988) supports the use of the Long Interview technique in research, as this technique allows the interviewer to comprehend a phenomenon through someone else's eyes: "The long interview gives us the opportunity to step into the mind of another person, to see and experience the world as they do themselves" (p. 9).

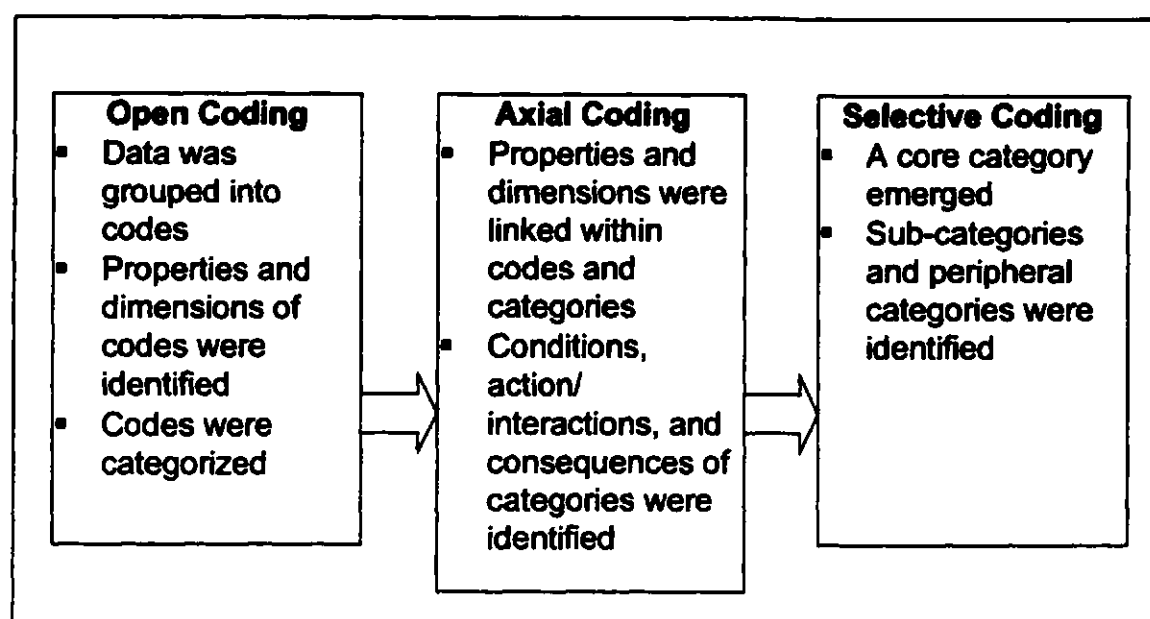
Each interview was tape-recorded, after which I transcribed each recording. All five transcripts were deposited in a master file using Atlas/ti software, a program specifically designed for qualitative research. This facilitated the coding, categorizing, and recall process of the data, which enabled me to spend more time analyzing the data and less time sorting it.

The process of data analysis involved three forms of coding; 'open', 'axial', and 'selective' (Figure 6).

#### Open Coding

During open coding, I went line by line through the transcripts and identified elements within the data. When a 'central idea' or phenomenon relating to RCB/RCM or the dean's role appeared, I assigned a code to that element of the subject, using a word or words that best represented the data.

Because of the complexity of RCB/RCM and of deans' roles, I attached more than one code to many comments. During the coding process, I grouped similar codes into categories. Strauss and Corbin state that "Categories have analytic power because they have the potential to explain and predict" (1998, p. 113).

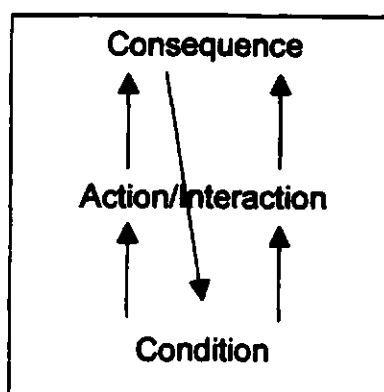


**Figure 6**  
**Flowchart of Data Analysis Process**

Simultaneously, I dissected the coded elements into their properties and scaled the properties on a dimensional range (i.e., a property of hiring is the type of position filled, and the dimensions range from sessional to tenure track). The identification of properties and dimensions allowed the pieces of data to be woven back together through the process of axial coding.

#### Axial Coding

Axial coding rebuilds the data, which facilitates the development of theory, since it links the properties, and the relationships within the data begin to emerge. To facilitate this process, I linked the data using the paradigm model (Figure 7) suggested by Strauss and Corbin (1998). Paradigm models consist of the three interrelated levels of 'condition,' 'action/interaction,' and 'consequence.'



**Figure 7**  
**Paradigm Model**

The use of paradigms enabled me to visualize the data in a systematic way. I was able to see the complex relationships between the conditions, actions/interactions and consequences of the phenomena of RCB/RCM, and the deans' roles. For example, the condition of 'the need to generate tuition revenue' led to the action of "increased recruitment,' which resulted in a consequence of 'higher enrollment.' At the same time, the condition interacted with 'a question about the dean's role,' which resulted in a consequence of 'role ambiguity.'

Phenomena are not rigidly labeled as only a condition, an action/interaction, or a consequence. The evolving process of events in a natural setting is in constant motion, and therefore one cannot label any phenomena so specifically (Strauss and Corbin, 1990).

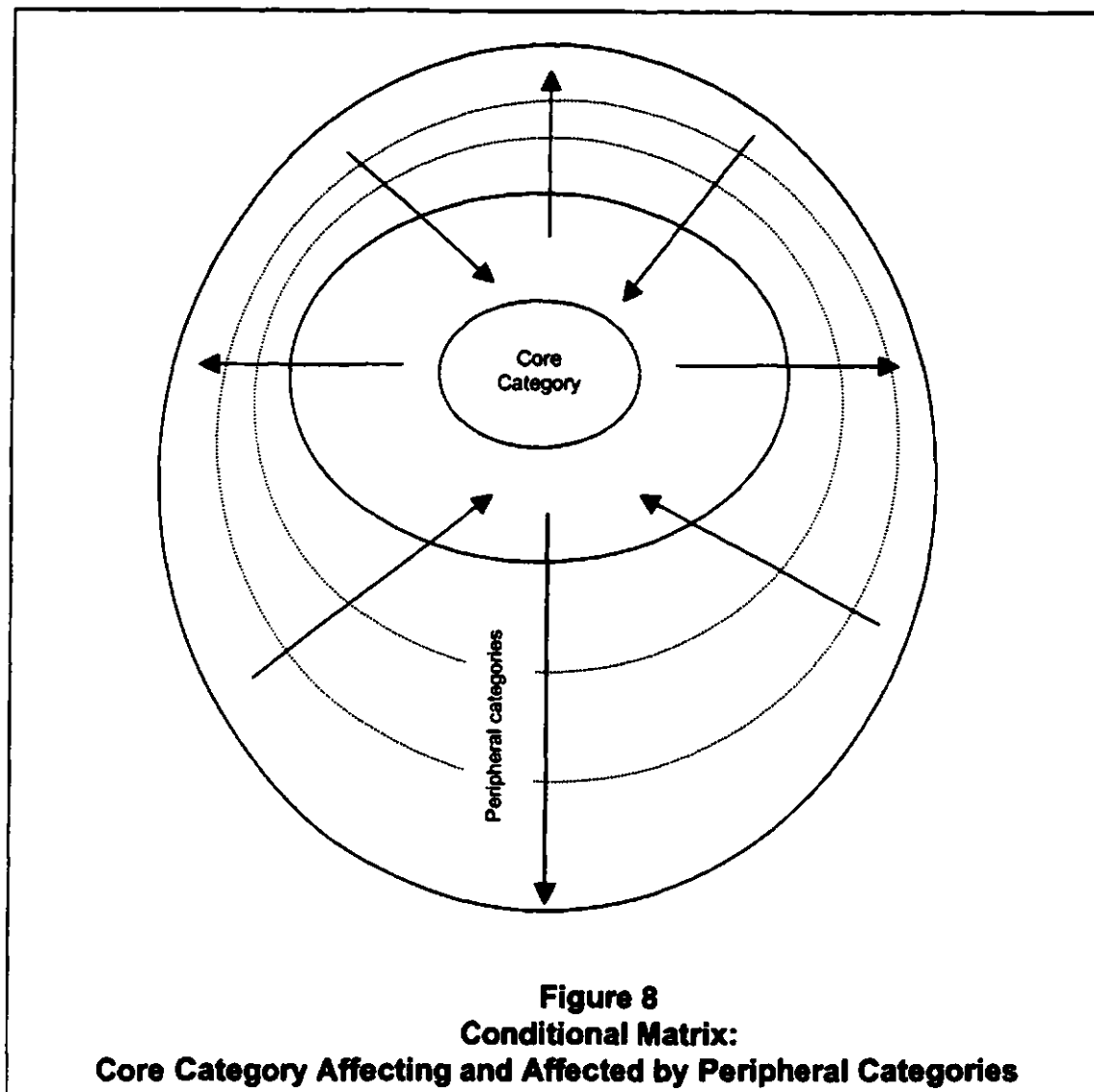
Lincoln and Guba (1985) discuss the assertion that different knowledge may be derived by different people, who may construct different paradigms from

the same data. Therefore, a database is essential for an audit trail, should another researcher wish to trace the steps and arrive at the same conclusion (Yin, 1994).

#### Selective Coding

The final stage in the data analysis involved deriving a storyline from the information that emerged from the paradigms. At this point the categories were analyzed, following which some were merged together and others deleted, until three categories remained. Two of these categories are peripheral to the core category, which contains the main theme of the research (Strauss & Corbin, 1998). A conditional matrix is used in the research to conceptualize the relationships between and within the phenomena of the peripheral and core categories (Figure 8). The intertwining arrows in the diagram reflect the constant interaction between the conditions, interactions, and consequences of the structure and the "dynamic evolving nature of events" (Strauss & Corbin, 1998, p. 184).

During the analysis, some of the deans' comments concerning particular issues became repetitive, indicating that saturation was taking place. Not all comments, however, were repeated by the deans of all faculties. This fact was indicative of the unique characteristics of the deans and their various faculties/schools. These unique characteristics were recognized as contingent factors, for which further research in other universities practicing RCB/RCM will be necessary for saturation to take place.



Pandit (1996) suggests the use of triangulation in order to strengthen the validity of concepts, and their reliability, as the various methods can support one another in a highly synergistic manner in the grounded theory process. I triangulated my primary data with financial data from University of Lethbridge Financial Statements (1993 - 2000) and The University of Lethbridge Planning and Three-Year Budget Forecasting Model (1994). Enrollment and staffing issues from the interviews were compared to secondary data from the University

of Lethbridge Fact Books (1993 - 2000), University of Lethbridge Institutional Analysis data and government news release data (2001). For comparative purposes, I examined enrollment numbers from The University of Calgary Factbook (2000/2001) and The University of Alberta Data Book (1999/2000). Minutes from a March 1994 Board of Governors meeting at the University of Lethbridge were examined in hopes of determining the Board's objectives for the implementation of RCB/RCM.

I compared my findings with the limited bodies of literature on RCB/RCM and the role of traditional deans, and with the theories on management roles, in order to determine a description of the dean's role in an RCB/RCM system. This was the final step, confirming the theory of my research. Strauss and Corbin (1998) write that this validation from the literature completes the grounding process.

### **Providing Trustworthiness**

Lincoln and Guba (1985) state that credibility, transferability, dependability, and confirmability are necessary components of qualitative research if the research is to be trustworthy. These characteristics are synonymous with the quantitative research terms 'internal validity,' 'external validity,' 'reliability,' and 'objectivity.' Credibility in grounded theory research verifies that the research results truly represent the data. This is established via triangulation (the use of multiple sources of data). Credibility (internal validity) comes also from the development of patterns (Yin, 1994), which

occurs during the process of saturation. References back to the literature also strengthen the credibility of the research (Pandit, 1996).

Transferability is the qualitative equivalent of external validity. The conventional researcher seeks to provide generalizable findings expressed within quantitative statistical boundaries. The naturalist, on the other hand, strives to provide a "thick description necessary to enable someone interested in making a transfer to reach a conclusion about whether transfer can be contemplated as a possibility" (Lincoln & Guba, 1985, p. 316). Therefore, a thick, descriptive database is essential. Transferability is also strengthened through a comparison to the literature to verify findings.

Dependability equates to reliability in quantitative studies. Just as reliability cannot exist without validity, dependability cannot exist without credibility. Therefore, the establishment of credibility is a prerequisite to dependability. Two methods for providing dependability to research are the use of triangulation and the development of thorough databases (Yin, 1994). Quantitative sources may act to support the qualitative findings, and careful storage of data allows for easier replication of results.

Finally, confirmability equates to objectivity in quantitative research. The researcher must approach the study with an objective, unbiased frame of mind. Findings are objective if they are "reliable, factual, confirmable or confirmed" (Lincoln & Guba, 1985, p. 300). Confirmation is possible with a comprehensive database. The matter of objectivity shifts from the researcher's characteristics to the characteristics of the data.

### **Limitations of the Study**

Despite every attempt to provide trustworthiness in my research, limitations do exist. The most significant limitation of my research relates to the generalizability of the theory and themes due to the case study approach and the small sample size. However, the combination of the database, triangulation with secondary data, and references made to existing literature strengthens the generalizability in this study. The use of multiple sources increases the likelihood that academic deans at other universities would experience similar effects from an RCB/RCM system. The results of this study are, therefore, useful for deans and administrators currently using or proposing to implement RCB/RCM in universities.

The reliability of the study is limited by the case study approach and the subjectivity that one could impose upon the research. A second reader was not used in my study. However, my objectivity and comprehensive database combine to address this limitation. Another researcher following the audit trail through my database would be able to replicate the results of the study.

A limitation exists with the actual RCB/RCM model implemented at the U of L, in which indirect costs are not allocated to the faculties. The relationship between academic deans and support units did not arise in the interviews. This factor, and the number of variables facing the role of a dean, may cause somewhat different results to occur at other universities. However, the strong links and clear differences found between the traditional dean's role and the new dean's role with RCB/RCM would likely allow for similar results.

### **Concluding Remarks**

Grounded theory meets the objectives of my study. The lack of prior theories, the existence of multiple variables of the phenomenon, and an absence of links between the variables suggest the use of a naturalistic methodology. Furthermore, the limited sampling size is best addressed through a qualitative method, in order to capture a rich database from a small sample. The application of grounded theory in this study aims to develop a new understanding about the phenomenon of RCB/RCM and academic deans' roles.

Glaser and Strauss (1967) sum up the process of grounded theory as follows: "Theory based on data can usually not be completely refuted by more data or replaced by another theory. Since it is too intimately linked to data, it is destined to last despite its inevitable modification and reformulation" (p. 4).

## **CHAPTER FIVE: ANALYSIS and RESULTS**

**In this chapter, I present a theory based on four themes in response to my research question: What effect does Responsibility Centre Budgeting/ Responsibility Centre Management have on the role of academic deans in a public university?**

**My analysis followed the processes laid out in grounded theory by Strauss and Corbin (1998) and Pandit (1996). During the process, I developed a list of codes representing the main elements that emerged from the transcripts of the interviews with the deans. Codes for my final list were selected for factors of either frequency or emphasis they received during the interviews. I then sorted the codes into categories. Within these categories, I also identified sub-categories to assist in the management of the data. Throughout the process, I looked for relationships between codes and categories, watching for emerging patterns and themes to explain why the deans discussed the categories so frequently or emphatically.**

**After the process of merging, eliminating, and creating categories, the final product was three categories. Two of these categories are classified as peripheral and are based on the deans' budgetary and personnel roles. The third, and core, category focuses on decision-making and links the peripheral categories (Table 5). The element of decision-making regarding budgets and roles appeared constantly as I coded my data, and thus emerged as the core category, constituting the theory of my research. Themes defining the**

characteristics or boundaries of decision-making -- autonomy, accountability, communication, or contingent factors -- also emerged during the analysis of the data. A sample of the process of analysis is shown in Appendix A.

**Table 5**  
**Categories and Corresponding Codes from Data**

<b>Peripheral Category: Role of the Academic Dean: Responsibility Centre Budget</b>			
<b>Revenue</b> 1. Grant funding 2. Tuition revenue	<b>Expenses</b> 1. Faculty salaries 2. Operating expenses	<b>Carry-forward</b> 1. Carry-forward balance	<b>Administration</b> 1. Training 2. Workload

<b>Core Category: Level of Decision-Making in an RCB/RCM System Adds a New Dimension to an Academic Dean's Role</b>			
<b>Autonomy</b> 1. Motivation	<b>Accountability</b> 1. Awareness 2. Effectiveness 3. Efficiency 4. Type/Purpose of Dean	<b>Communication</b> 1. Culture 2. Information system 3. Transparency	<b>Contingent Factors</b> 1. Class subject matter 2. Institutional priorities 3. Nature of faculty/school 4. Organizational characteristics

<b>Peripheral Category: Role of the Academic Dean: Personnel Management</b>		
<b>Faculty/School</b> 1. Assistants 2. Class size 3. Curriculum 4. Enrollment 5. Faculty development 6. Hiring 7. Scheduling 8. Students	<b>University</b> 1. Central administration 2. Decentralization 3. Purpose of universities 4. Relations between faculties	<b>External</b> 1. Alliances 2. Government 3. Other universities 4. Society

I developed and worked with a series of paradigms connecting the properties and dimensions of the categories and codes, until one predominant paradigm emerged (Figure 9). The paradigm flows from the bottom up, as prescribed by Strauss and Corbin (1990).

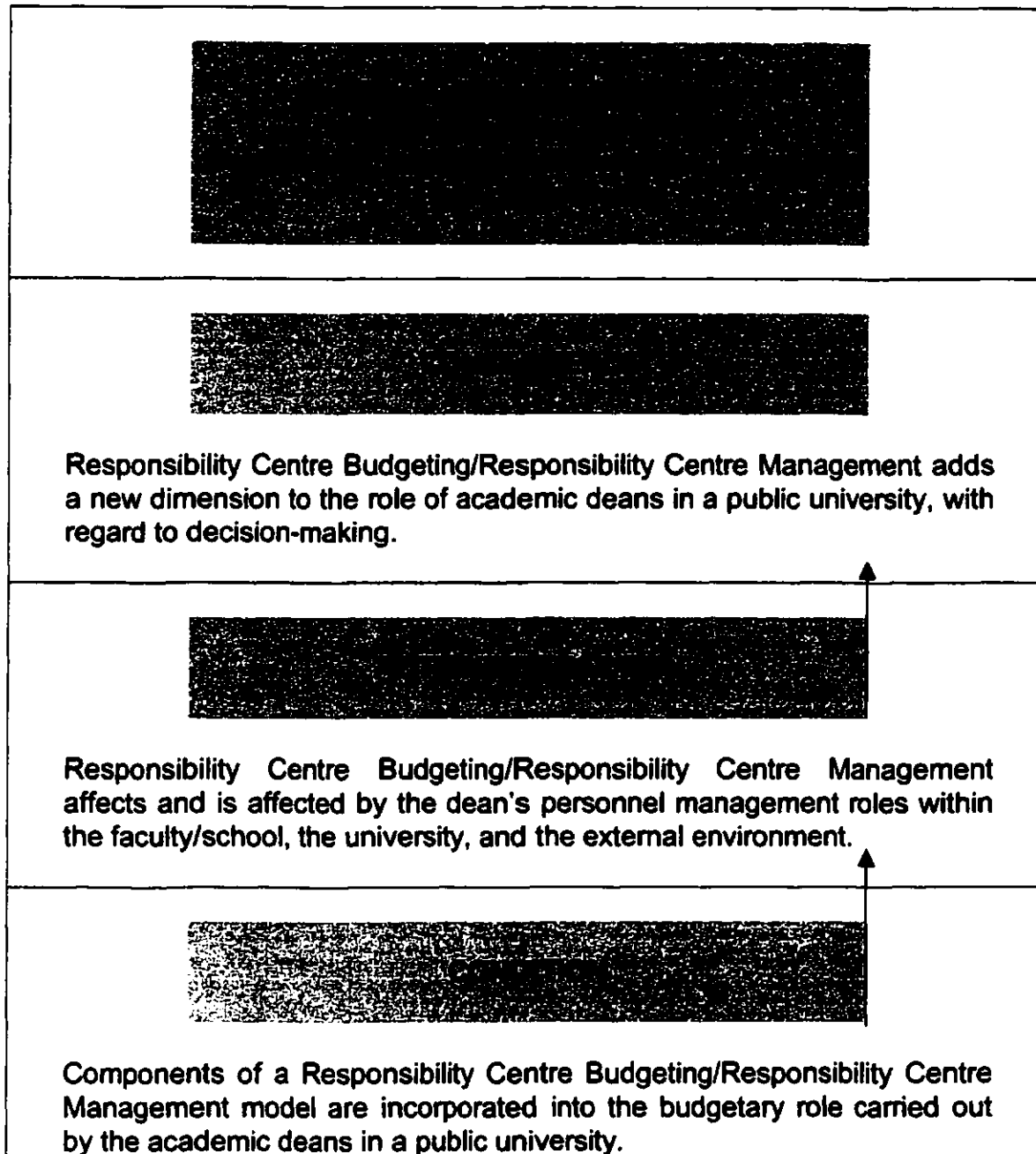
The context within the 'condition' frame in this paradigm addresses those elements of a responsibility-centre budget shown in Table 5. The 'action/interaction' frame addresses issues within a dean's personnel management role as they are influenced by and influence Responsibility Centre Budgeting/Responsibility Centre Management (RCB/RCM). The action and interaction of the peripheral categories seen in the lower frames of the paradigm result in a consequence, which represents the core category of my research.

#### **Identification of a Theory and Themes**

This core category holds the key to the theory and supporting themes developed in this study.

The following theory emerged as a result of my research:

**Responsibility Centre Budgeting/Responsibility Centre Management adds a new dimension to the role of an academic dean in a public university, increasing the decisional role (Mintzberg, 1973) to include the role of 'entrepreneur' (and 'disturbance handler' when combined with an uncertain environment). Deans in RCB/RCM systems face long run responsibilities (Kotter, 1982), and thus RCB/RCM bestows both Mintzberg's and Kotter's complete set of managerial roles on the dean.**



**Figure 9**  
**Paradigm Model of RCB/RCM's Effect on**  
**the Role of Academic Deans in a Public University**

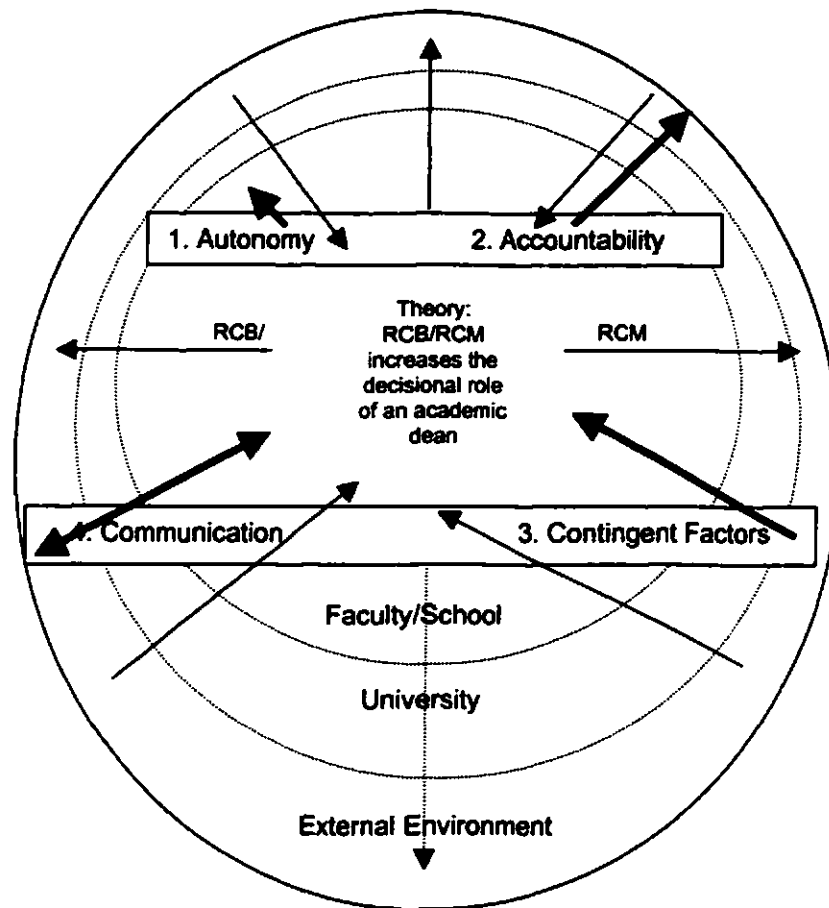
**The following themes define the characteristics or boundaries of the deans' decision-making role in the RCB/RCM system studied:**

- 1. RCB/RCM, by decentralizing decision-making, has granted deans a greater level of autonomy.**
- 2. The increased autonomy found in an RCB/RCM system heightens the academic deans' level of accountability.**
- 3. Contingent factors at all levels have an effect on the deans' level of autonomy and accountability within their decisional role.**
- 4. The increase in autonomy and accountability passed down to deans in an RCB/RCM system increases the need for two-way communication.**

**These four themes and their relationship to the theory emerged as the strongest undercurrents to the entire body of concepts.**

**To conceptualize the relationships between the personnel management roles played by the deans, and RCB/RCM, I have used a conditional matrix.**

**Within this matrix, I have also illustrated the relationship between my theory and themes (Figure 10).**



**Figure 10**  
**Theory and Associated Themes Linked to the**  
**Relationship Roles of an Academic Dean**

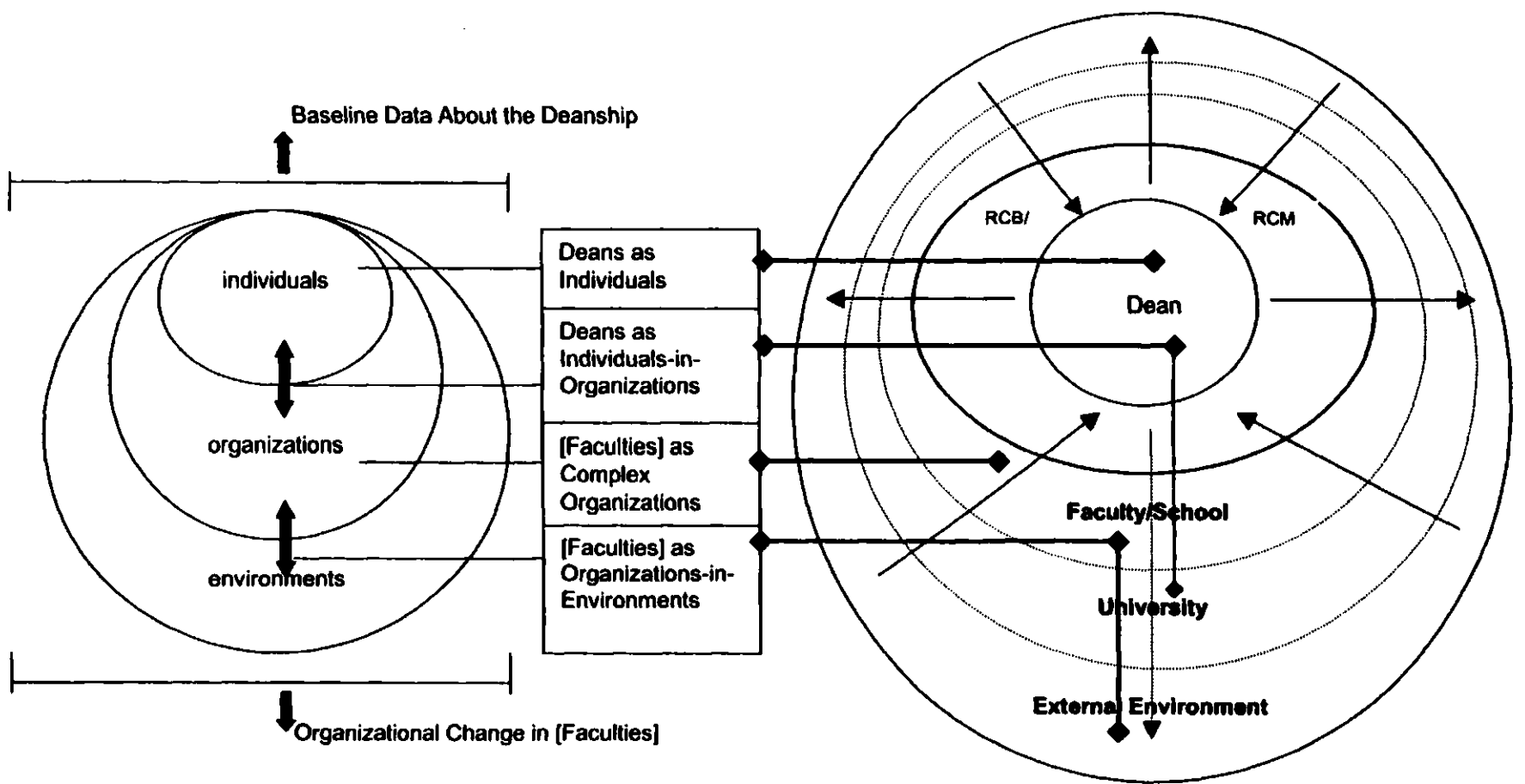
The arrows connecting or running through the four themes to the layers of the matrix reflect the direction of the effect of RCB/RCM on the deans' personnel roles, or the effect of the personnel roles on RCB/RCM. Examining the themes and arrows in the diagram reveals the following: 1) the increased level of decision-making suggests that the deans have more autonomy in their faculties/schools; 2) deans are accountable to their faculties/schools, in addition to the university and the external environment; 3) communication must flow in all

directions for RCB/RCM to be truly effective; and 4) contingent factors at all levels affect the deans' role.

### **Triangulation of Data**

In the following analysis of the theory and themes, I discuss my primary data, triangulate primary data to secondary data, and make numerous comparisons with the literature to provide credibility, transferability, and dependability to my research. Additionally, deans were given the opportunity to review the findings of this study. The support received, pertaining to the results and analysis, adds credibility to the research. To provide confirmability to my work, a rich database is available for an audit trail, if necessary.

My theory and themes are clearly grounded in my data and are supported by the existing literature. To begin my analysis, I find that Culbertson's (1980) conceptual framework is similar to the conditional matrix developed in my study (Figure 11). Culbertson depicts the scope of relationships that occupy an academic dean's role.



Adaptation of Culbertson's (1980) model of the domain structure

Conditional matrix of categories developed in the research

(The two-way arrows in the diagram link the text frames of Culbertson's model to the category (ies) of the conditional matrix.)

**Figure 11**  
**Comparison of Culbertson's (1980) Structural Framework and Researcher's Conceptual Framework**

The conditional matrix developed in my research portrays these same relationships. The dean him/herself is recognized at the centre, surrounded by relationship responsibilities for the budget, the faculty, the university, and the environment. Similarly, I find Tucker and Bryan's (1988) relationship roles reflected in my data. Their reference to the role of responsibility for budget is clearly the role at the heart of my research question. The relationships within their personnel management category are also paralleled within varying layers of my conditional matrix. These links to the literature provide both credibility and transferability to my study regarding the role of academic deans in a public university.

My study does not address the dean's role of dealing with institutional support staff outside of their own faculty, the third category discussed by Tucker and Bryan (1988). This subject did not arise in any of my interviews, and I assume at this time that the U of L's use of a partial version of RCB/RCM is the reason for this. As deans at the U of L are not charged for the use of support services, a budgetary relationship does not exist with these individuals.

The concepts that emerged during my research regarding the actual components of the responsibility centre budget also link to material in the literature. The deans at the U of L all discussed the generation of tuition revenue, the allocation of government grants, expenses, and carry-forwards. The advantages and disadvantages of RCB/RCM discussed in the literature also closely mirror the advantages and disadvantages discussed by the deans (Table 6).

**Table 6**  
**Issues Regarding Responsibility Centre Budgeting/  
 Responsibility Centre Management in the Literature,  
 and Corresponding Issues Discovered in the Research**

Decision-Making	<ul style="list-style-type: none"> <li>▪ Changes in hiring practices</li> <li>▪ Increased at faculty/school level</li> <li>▪ Focus split between academics and finances</li> <li>▪ Faculty positions are not lost to central administration in RCB/RCM</li> </ul>
Efficiency	<ul style="list-style-type: none"> <li>▪ Some professors voice concern over teaching loads, research time</li> <li>▪ More flexibility</li> <li>▪ Allows for innovation</li> <li>▪ Increased efficiency</li> <li>▪ Increased awareness</li> </ul>
Finances	<ul style="list-style-type: none"> <li>▪ Tuition revenue must be generated by the deans</li> <li>▪ Need to create new courses</li> <li>▪ Government funding is reducing, allocations are unclear</li> <li>▪ Costs are carefully monitored</li> <li>▪ Carry-forwards are motivation of the system</li> </ul>
The university as a whole	<ul style="list-style-type: none"> <li>▪ Institutional priorities are recognized</li> <li>▪ Communication is essential</li> </ul>

The similarity of the issues in the data and the literature increases the credibility and transferability of the research regarding RCB/RCM systems.

With the concepts from my peripheral categories clearly grounded in the literature, my intention is to bring an RCB/RCM budgetary role and a dean's personnel roles together, examining how the former affects the latter.

The implementation of RCB/RCM has a decentralizing effect on a university (Lang, 2001), passing budgetary decision-making down to the deans of the faculties. The effects of RCB/RCM are witnessed at all levels of the relationship responsibilities within the RCB/RCM academic dean's role. The shift of these roles from central administration to the faculties/schools allows for better decisions regarding the allocation of scarce resources within the confines of academic choices (Whalen, 1991). Shick, Birch, and Tripp (1986) support the notion that when faced with scarce resources, universities increase their use of "subunit power."

Evidence from my research supports this increased power, as expressed by one of the deans.

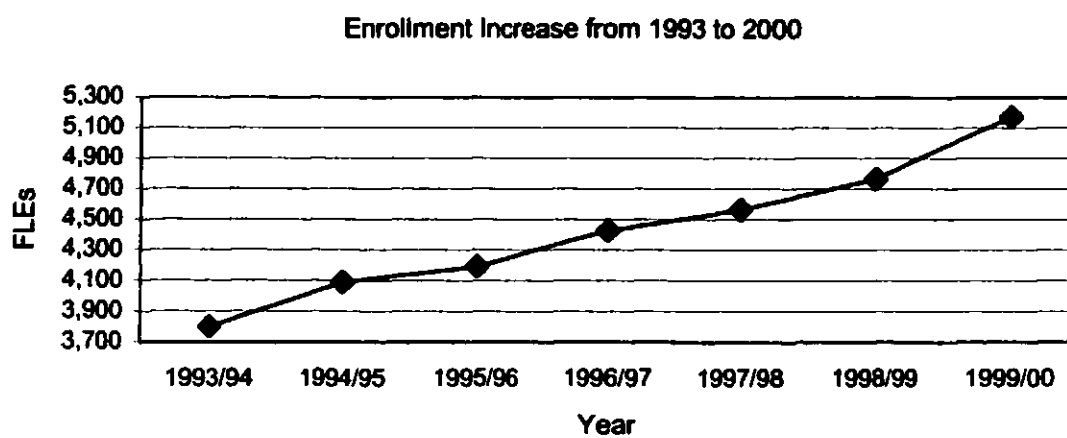
The deans are the fulcrum of the system. They have to know everything. They're not just managing their own little budgets ... they have to know how much money is coming to the institution. They have to know what the enrollment figures are. They have to know where the building is leaking. They have to know where the knob has to be fixed. We have in some ways become masters of our own house.

The implementation of RCB/RCM in a public university represents a fundamental change to the "budgetary role" in Tucker and Bryan's (1988) list of relationship responsibilities. Morris (1981) divides the responsibilities for the budget into three categories: 1) budget preparation, 2) resource allocation, and 3) resource control. These responsibilities are no different (as witnessed in the data) and of no less importance to a dean practicing responsibility centre budgeting, but the role of the deans studied went further.

RCB/RCM enlarges the principle of 'budget,' adding both autonomy and accountability for 'revenue generation' to the dean's role at the U of L. While this is typically regarded as a role of central administration (Lang, 1993), RCB/RCM appears to move this function to the Faculties, as indicated by one of the deans in the study: "There was a need for us to increase activity in order to generate revenue."

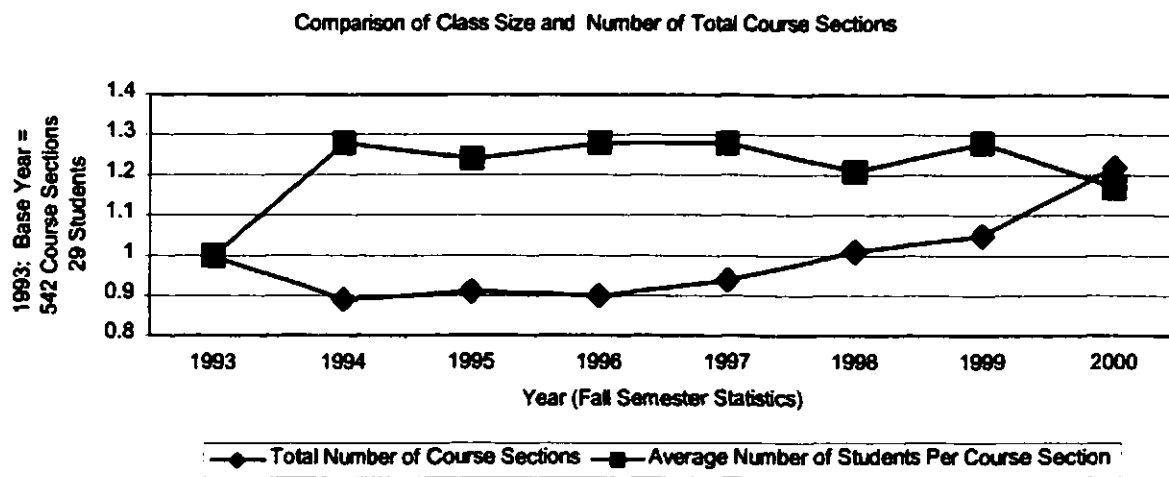
While this is an immediate effect of RCB/RCM on the deans, Lang states that revenue generation is "as subtle as it is immediate" (1993, p. 5). The subtlety lies with the marginal costs of increased enrollments. The "decision rule for competitive institutional advancement" is that an activity should be expanded only as long as the sum of its marginal value and marginal revenue exceeds the marginal cost (Gumport and Pusser, 1997). A comment from a dean supports this rule: "The only way to make up [uncontrollable cost] difference in any of the units is to bring in more students and NOT increase the cost of the teaching."

Evidence from the U of L indicates that deans may have in fact been doing just that -- increasing enrollments and controlling, even cutting, costs. Enrollments of full-time learning equivalent (FLE) students increased significantly between 1993 and 2000 (Figure 12), climbing by 36%. Interestingly, in contrast, the two other major universities in the province averaged an increase of 12% in the same time period.



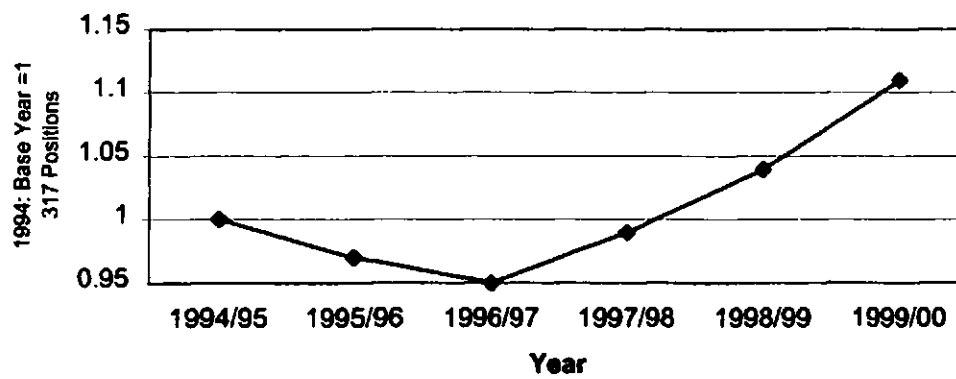
**Figure 12**  
**Enrollment Increases from 1993 to 2000**  
 (Source: *Institutional Analysis, The University of Lethbridge*)

Indications of increased enrollment figures and corresponding cost cuts can be seen in Figure 13, with the average number of students per course section increasing significantly following the implementation of RCB/RCM, and the number of course sections declining during that time. The graph indicates that the average number of students per class remained fairly level during the cuts, after which time a decline is seen in 1998, followed by a further decline in 2000. This reinforces Vice-President O'Shea's comment that small class sizes must be maintained to ensure that aspect of quality perceived by the public. We can also see from Figure 13 that the number of course sections dropped with the implementation of RCB/RCM and the initial cutback, and then remained level until 1997, at which time they began to climb steadily.



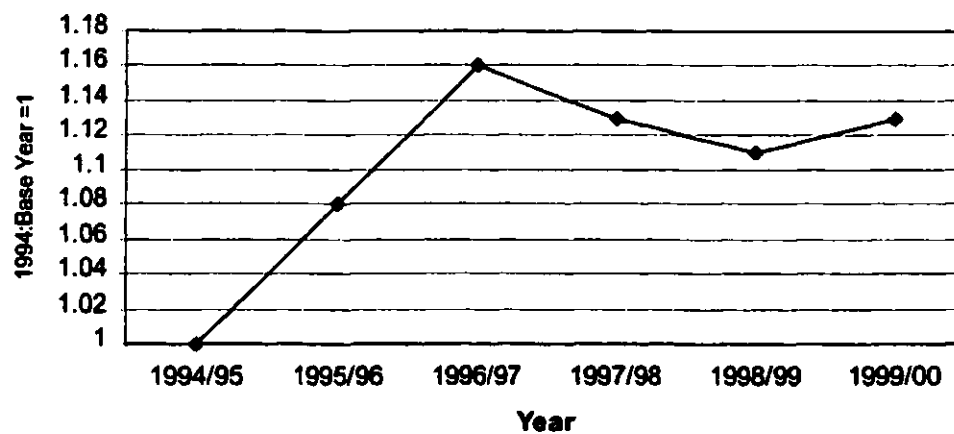
**Figure 13**  
**Comparison of Average Number of Students Per Course Section and the Total Number of Course Sections**  
*(Source: Institutional Analysis, The University of Lethbridge)*

The trend in budgeted full-time equivalent academic (FTA) positions (Figure 14) corresponds to the decline in course sections during the primary years of RCB/RCM.



**Figure 14**  
**Trend in Budgeted Full-time Academic Teaching Positions**  
*(Source: The University of Lethbridge Facts Book, 1998-99, 1999-00)*

To further accentuate the trend in full-time equivalent academic positions, a comparison of FTAs to full-time equivalent students (FTEs) (Figure 15) indicates that the ratio of students to instructors increased significantly during the cutback years, peaking at a 16% increase in 1996/97, and declining slightly back down to a 13% increase in 1999/00.



**Figure 15**  
**Increase in Full-time Equivalent Students to**  
**Budgeted Full-time Equivalent Academic Positions**  
*(Source: The University of Lethbridge Facts Book, 1998-99, 1999-00)*

My conclusion after examining the data and statistics is that deans were aiming to increase marginal revenues over and above marginal costs. When this “decision rule for competitive institutional advancement” is added to the dean’s role, the role expands to include ‘resource manager,’ reassigning decision-making to the locale where knowledge about programs and faculty/school budgets is greatest (Lang, 2001; McCorkle & Orr, 1982; Whalen, 1991).

There is evidence, therefore, that the effect of RCB/RCM on the role of an academic dean at the University of Lethbridge is the addition of 'revenue generator' and 'resource manager' within their budgeting responsibilities, thus adding a new dimension to their role. Comments by the deans support this finding.

Deans discussed their levels of autonomy and accountability for both revenue generation and resource management when discussing tuition revenue and carry-forward balances, which are the result of the dean's budgetary decisions and academic planning. Accountability, contingency, and communication issues are also factors and will be discussed later. The U of L deans made the following comments.

RCB has made us more active on the recruitment front, recruitment of students, because we have to have tuition revenue. It has made us more accountable. If [something] goes wrong, we have to correct it.

The dean is responsible for the unit, and all the money that comes in is essentially for the running of this unit ... it was so important that we increase our numbers.

It's a huge issue, who gets the money, ... how many students you have, so you market your courses.

If there's money left over in the carry-forward then a plan [is made to] go-ahead and spend it on new equipment or whatever it might be.

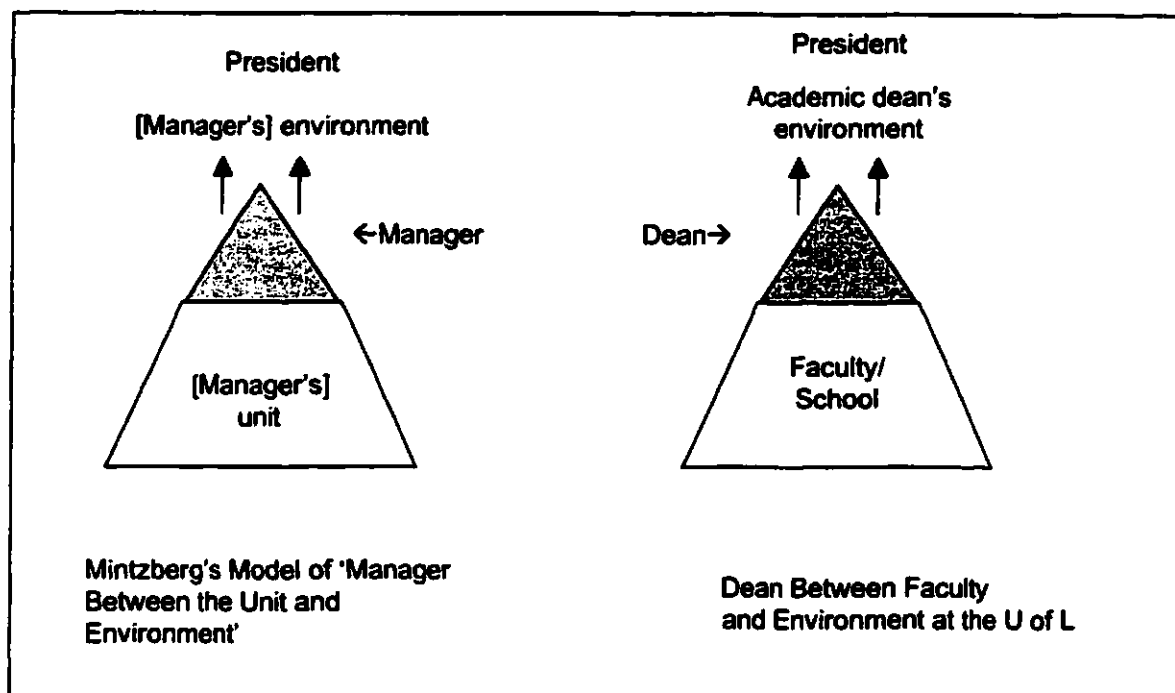
### **Theory Building: Comparison of Findings to Management Theories**

One must caution the extent to which generalizability is inferred from a case study. However, assuming the roles of deans that emerged from this study are characteristic of deans using RCB/RCM elsewhere, a comparison of deans'

roles and the roles of managers, as theorized by Mintzberg (1973) and Kotter (1982), can be made to assist in defining the new dimension found within an RCB/RCM dean's role. Linking my findings to existing theories prevents the creation of another 'disparate piece' of knowledge about management roles, as I am attempting to coordinate my findings with existing frameworks (Javidan & Dastmalchian, 1992). As many similarities exist between for-profit and not-for-profit managers (Robbins, De Cenzo, & Stuart-Kotze, 1996), I will compare the set of for-profit managerial roles, to not-for-profit dean roles, in light of my findings regarding the use of an RCB/RCM system. To begin, the literature strengthens the similarities between these two roles when we look at the placement of a manager's role (Mintzberg, 1973) and a dean's role (Dibden, 1968; Gmelch et al., 1999; Morris, 1981; Tucker & Bryan, 1988) (Figure 16). While the role placement of a manager is similar to that of a dean in a traditional university, an even stronger similarity seems to exist between the deans in this study, and a manager, as seen in the following discussion of Mintzberg's (1973) and Kotter's (1982) descriptions of managers' roles.

Mintzberg's (1973) ten managerial roles, categorized into groups of interpersonal, informational, and decisional roles, are very similar to the roles of an academic dean in an RCB/RCM system. Interpersonal roles require the dean to act in a ceremonial and symbolic capacity. Within this role, deans act as figureheads, leaders, and liaisons. Deans represent their faculties, encourage their subordinates, and liaise with outside bodies, to list a few responsibilities. Both traditional and RCB/RCM academic deans carry out these functions, as can

be seen from my research data and the literature (Gmelch et al., 1999; Morris, 1981; Tucker and Bryan, 1988; Wolverson et al., 1999).



**Figure 16**  
**Similarities Between a Manager's Role Placement and an Academic Dean's Role Placement**

Deans also collect information from external sources, which they relay to their subordinates, and report back to the external community. These functions make up their informational role. As custodians of information, they monitor their surroundings, disseminate their findings to others in the organization, and act as spokespersons to the external environment. Again, these roles are apparent in the literature and data for both traditional and RCB/RCM academic deans.

Finally, deans make choices. Mintzberg (1973) calls this the decisional role of managers. While traditional academic deans are recognized as the

**"crucial backbone of university decision-making" (Wolverton et al., 1999, p. 80) due to their pivotal role between central administration and the faculty, the extent of their decision-making is limited. This thesis suggests that the effect of RCB/RCM on the dean's role increases the extent of decision-making, when we compare the dean's role to the management role theories of Mintzberg and Kotter.**

**Within Mintzberg's decisional role, managers 1) allocate resources, 2) negotiate for their unit, 3) act as 'entrepreneurs,' deciding on new projects to enhance the organization, and 4) act as 'disturbance handlers,' developing strategies to cope with crises. Hence, within this role, the parallels to a traditional academic dean weaken. The traditional academic dean allocates resources and negotiates on behalf of the faculty/school (Morris, 1981; Tucker and Bryan, 1988). However, the strategic planning and decision-making that is necessary for entrepreneurship and handling disturbances, usually emerge from higher levels of a centralized institution (Baldrige & Teirney, 1979).**

**Typically, centralized, bureaucratic universities see new policies made by the boards and proposed by presidents. The policies are then administered by provosts and deans, who manage the new policy through their staff (Finnegan, 1997). The top administrators assume the role of planning and decision-making for the university (McCorkle & Orr, 1982).**

**I find evidence in the literature (Lang, 1993; Whalen, 1991), however, that the characteristics of Mintzberg's (1973) decisional roles of 'entrepreneur' and 'disturbance handler' (Table 7) are prevalent in the role of the academic deans,**

and this appears to be the case at The University of Lethbridge. Through the process of decentralization, these functions are passed down to the dean.

**Table 7**  
**Mintzberg's (1973) Decisional Roles of**  
**'Entrepreneur' and 'Disturbance Handler'**

<b>Decisional Role</b>	<b>Description</b>
<b>Entrepreneur</b>	<ul style="list-style-type: none"> <li>▪ Initiates and designs change</li> <li>▪ Scans the environment, searching for opportunities and problems</li> <li>▪ Exploits opportunities, solves problems</li> <li>▪ Designs the decision-making phase</li> <li>▪ Delegates responsibilities of the phase</li> <li>▪ Supervises the design phase</li> </ul>
<b>Disturbance Handler</b>	<ul style="list-style-type: none"> <li>▪ Responsible for corrective action when organization faces important, unexpected disturbances</li> <li>▪ Handles conflicts between subordinates</li> <li>▪ Deals with difficulties between one organization and another</li> <li>▪ Manages resource losses or threats of loss</li> </ul>

*(Mintzberg, 1973)*

**The deans in my research support this shift in decision-making and planning.**

**In other universities where this system doesn't exist, you're sort of at the whim of your vice-president academic and university. You go and knock at their doors for your budget ... so all you have to do is make sure that you spend the money that you have in your budget, and if you're over you go and beg for more, and you usually get it. So there is no pressure or expectation to strategically look at your sources of funds and uses of funds, and the financial resources you require to achieve your long-term goals as a unit. The university as a whole has that [responsibility], so that responsibility probably is on the dean under this system that we have at the University of Lethbridge. So you have become a multi-functional kind of personality. You can't ignore one, you can't substitute your financial role for academic, or academic for financial ... you have to combine it and you're to put it together.**

**If [The University of Lethbridge] was a standard situation, I would just resign [myself] to the fact that the vice-president academic makes all the decisions. All I [would] have to do is make sure I hire good professors and make sure that schedules are done and a couple of other things.**

**These statements substantiate the perceived lack of the 'entrepreneur' role in centralized universities, and its existence in decentralized systems. Lang (1993) suggests that "RCB/RCM was not closely identified with entrepreneurship" in the role of the academic dean when first conceived, but it has become clearly apparent that it in fact does "encourage entrepreneurial or market behavior" (p. 36) in this role.**

**The role of disturbance handler was also discussed. Clearly, RCB/RCM came to the U of L at a time of turbulence. Theories conflict on the best way to handle disturbances or crises. Uncontrollable environmental changes often lead to new strategies and plans which require flexibility and a high level of employee involvement, i.e. a flatter, decentralized structure (Daft, 1995). Some argue,**

however, that 'environmental illiberality,' (a phrase referring to the level of threat facing an organization), forces the issue of survival on the organization, tightening controls and creating a more centralized environment (Child, 1972). Traditionally, organizational stress has led to greater centralization in academic environments (McCorkel & Orr, 1982). This theory was recognized by one dean:

The timing was amazingly different than [one] would expect. If there's a crisis you centralize things, but what we did was decentralize in crisis, because there was not enough money ... So we went through a very critical time where [deans] had to go to [their] faculty members and tell them, please cooperate, please help [the deans] out, please bail the whole faculty out because we are in a crisis, and they were good enough to do it.

However, the argument exists that decentralizing academic management during times of uncertainty is the key to success (Gumport & Pusser, 1997; Lang, 1993; McCorkle & Orr, 1982; Whalen, 1991). A comment from one of the deans addressed this theory:

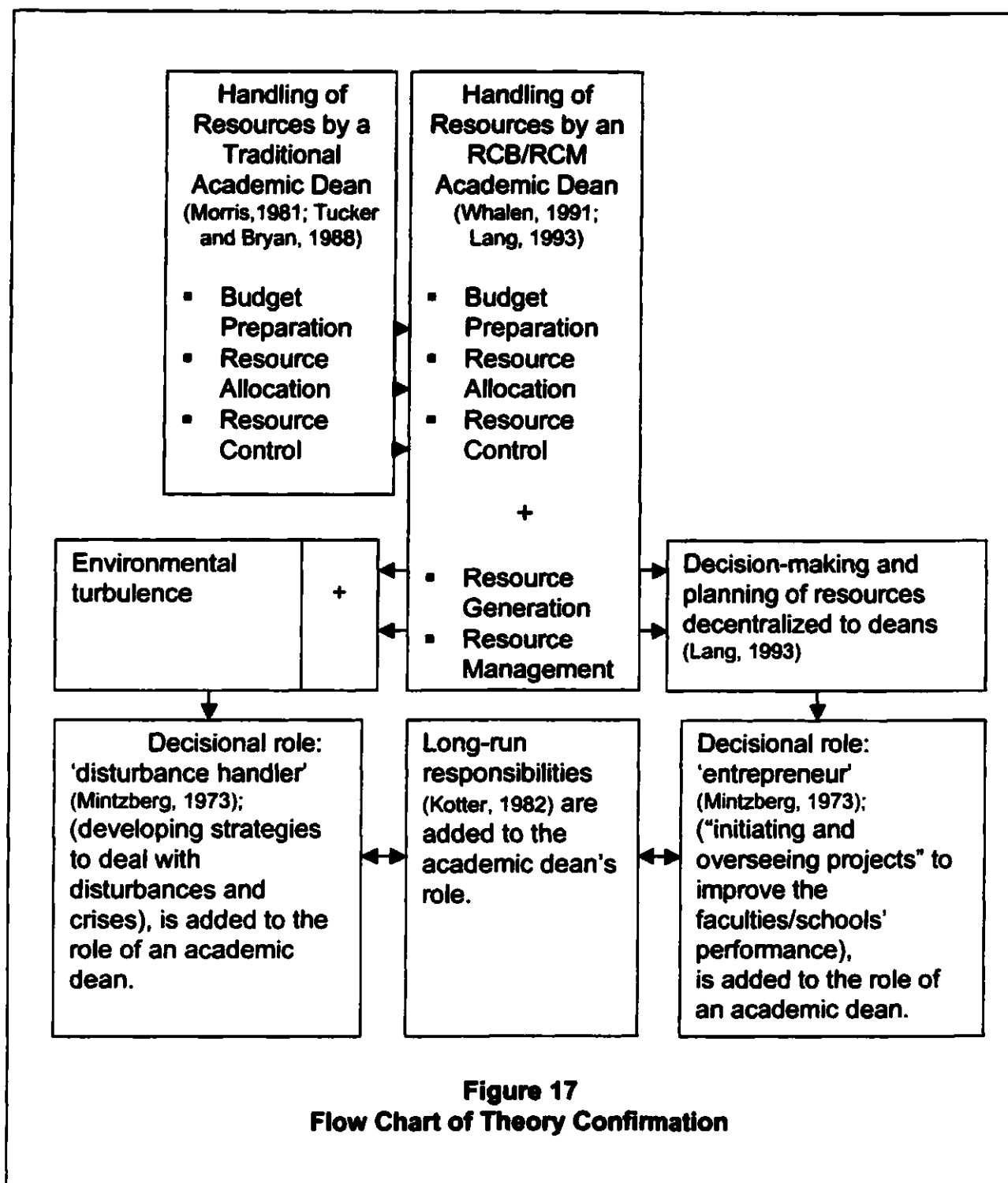
It's how to flourish in an environment, and this policy that the university brought in ... was a very important part of our adjusting so that we [could] maintain or flourish [in the situation]. I think if we hadn't [decentralized] it might have been a bit more backward.

The development of the theory in this thesis, therefore, begins with the addition of responsibilities to the academic dean's budgetary role at a time of environmental uncertainty. This addition places the autonomy, and consequently the accountability, for decision-making and planning, traditionally handled by central administration, on the dean, thereby adding a new dimension to the dean's role of 'entrepreneur' and 'disturbance handler.' The complete set

of for-profit management roles -- interpersonal, informational, and decisional (Mintzberg, 1973) -- are consequently held by the academic dean.

With the addition of resource generation and management in the budgetary role, the long-run responsibilities of general managers seen in Kotter's (1982) study parallel the responsibilities of RCB/RCM academic deans. With long-run responsibilities, the deans must address the university's and the faculty or school's goals, securing the proper financial, human, and material resources to bring the goals to fruition. While traditional deans carry out activities equivalent to Kotter's medium-run and short-run responsibilities, the academic dean in an RCB/ system engages in all three levels of responsibilities.

Mintzberg's (1973) and Kotter's (1982) theories indicate that the addition of responsibility for resource generation and management to the role of deans in an RCB/RCM environment gives them full CEO and general manager responsibilities, within their faculties/schools (Figure 17). Traditional academic deans, on the other hand, do not have the same degree of decision-making within their role. Every dean in my study addressed the emphasis on decision-making in one-way or another. From their interviews, the key points that emerged as the defining themes that characterized or set boundaries for decision-making were autonomy, accountability, contingent factors, and communication.



**Figure 17**  
**Flow Chart of Theory Confirmation**

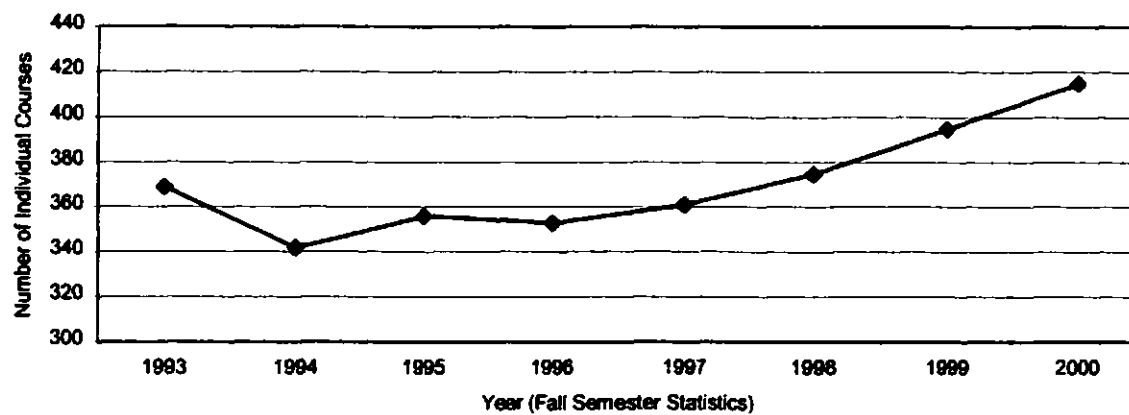
### **Themes Surrounding the Theory**

During the interviews with the deans, autonomy and accountability were discussed at length, and addressed by every dean. Supporting the significance of these themes within the larger theory of 'expert' decision-making, Finnegan (1997) recognizes the balance between autonomy and accountability. Decision-making applies one's skills and knowledge within a group, while fulfilling obligations inside and out of the group.

Autonomy is perhaps the strongest motivational force for deans working in an RCB/RCM system, as indicated by one of the deans:

You have quite a lot of autonomy, which is great. [Autonomy] is absolutely the most positive aspect of [RCB].

Deans are perhaps also motivated by the possibility of contributing intellectual pursuits to the university (Olson, 2000), and by the fact that they can set goals, recruit, appoint, promote, grant tenure, delete and increase sections of existing courses, as they see fit (Whalen, 1991). The fostering of new courses is evident at the U of L in the increase in the number of courses offered since 1993 (Figure 18).



**Figure 18**  
**Number of Individual Courses Offered at the University of Lethbridge**  
*(Source: Institutional Analysis, The University of Lethbridge)*

Two comments from the deans address their sense of autonomy regarding courses and hiring, and the freedom RCB/RCM allows them within their faculty/school:

The unit itself ... has benefited from the responsibility centre budgeting ... it can do its hiring now ... you want to put on another section of, say, [a course] ... you don't have to go to anybody else and say "Can I have some money to do it?"

[Vacant tenure track] positions are not lost. The money from those positions stays with you ... it seems like it is much more relaxed ... you feel that you have much more control over the hiring.

However, the autonomy a dean experiences is closely tied to the degree of financial control held by the government:

Our autonomy is in proportion to the level of the dependence we have on the government.

Autonomy is also tied to the actual carry-forward balance.

One of the great, intriguing attractions about the budgeting process here is that if you make the money, you keep the money and if you have an excess, you keep the excess. The downside, of course, is if you have a debt, then you have to find a way to pay the debt.

The deans also discussed the restrictions on carry-forwards:

The problem with the carry-forward is that it ... is not part of a grant. It's not something that's going to come in ... all the time. And the problem is that [deans are not allowed] to use it to hire permanent faculty.

Despite the perceived drawbacks, the benefits and the motivation factor of carry-forward surpluses were also recognized.

The money from this kind of budget ... allows discretionary ... spending at the faculty level.

Operating [funds were] reduced in '94 ... in the year of the big cuts ... so now [deans] use carry-forwards to enhance some of [their operations].

[The new system] is very interesting, it's very motivational, it's very different.

The degree of autonomy surrounding decision-making, as perceived by deans in an RCB/RCM system, is a complex issue, one clearly visible in this study. Equally complex and visible is the issue of accountability. One of the deans refers to RCB/RCM as "a more responsible and accountable system." The accountability in the RCB/RCM system is recognized as promoting efficiency.

My guess is [that] streamlined operations [are] more responsible. But it could translate into efficiency ... I think efficiency is good, using public money.

**Under the old system, there used to be a bit of a flurry in March to spend off the accounts that you had, because those [balances] would be sort of lost. A lot of silly things used to be bought at that time. So, once you had the confidence that, if you had a balance in the account, it was just going to be part of carry-forward, you weren't losing it, you didn't do that kind of thing, so that's obviously more efficient. I think there's ... program efficiency too. [RCB also] makes you think about [your] staff ... are their skills up to date, what can we do to help them become more skilled?**

**In order to be a truly efficient and effective system, those qualities by which accountability is measured, deans feel that the responsibility of the budget needs to be turned over to trained assistants, since deans are experts in their chosen discipline and not usually in managing budgets.**

**We have gone and hired [an] accountant.**

**Once I got somebody in the faculty employed [to do the budgets] ... we got control, very good control, and [the assistant] could predict almost to the dollar what our carry-forwards would be, whereas before, my secretary and I were just struggling with it.**

**Due to the increased accountability RCB/RCM places on the deans, trained assistants are required to interpret, analyze, and forecast the data. However, while assistants may be necessary to alleviate some of the workload and to provide their expertise, deans have to understand and accept the budget. The performance and motivations of the faculty/school are reflected in the budget. Additionally, all of the faculty budgets must coordinate and reflect the motivations of the entire university (Horngren, 1982).**

**One area of concern expressed by the deans was accountability. The topic of controllable and uncontrollable factors affecting the budget emerged in**

the analysis. Solomon (1965) stresses that managers of centres should not be evaluated on components beyond their control:

1. Costs should be borne by, and revenues should be credited to, the segments of the business responsible for them.
2. Costs should be charged to the department, which has the power to accept or reject the invoice or which pays for the labor required (pp. 54-55).

Deans discussed both revenue sources and expenses for which they are held accountable by the bottom line of the budget, although their control over these particular items varies. Table 8 outlines these areas, addressing the uncontrollable, semi-controllable, and controllable features of the budget.

**Table 8**

**Controllability of Accountable Revenue and Expenses by the Deans**

	<b>CONTROLLABLE ELEMENTS</b>	<b>SEMI-CONTROLLABLE ELEMENTS</b>	<b>UNCONTROLLABLE ELEMENTS</b>
<b>REVENUES</b>	<ul style="list-style-type: none"> <li>▪ Tuition revenue from new courses*</li> <li>▪ Tuition revenue from increased enrollment in existing courses**</li> </ul>	<ul style="list-style-type: none"> <li>▪ Access funding</li> </ul>	<ul style="list-style-type: none"> <li>▪ Base grant funding</li> </ul>
<b>EXPENSES</b>	<ul style="list-style-type: none"> <li>▪ Operating expenses</li> <li>▪ Salaries (Number of people hired/tenure track vs. term)</li> </ul>		<ul style="list-style-type: none"> <li>▪ Salaries (Board level raises)</li> </ul>

(Source: Interview data)

\* Conditional on a) availability of funds in the faculty budget to cover the operating expenses and salaries necessary to offer new courses, and b) approval from faculty council.

**\*\* Conditional on a) availability of space in existing courses for more students, and b) availability of sufficient funds in the faculty budget to cover operating expenses and salaries for an additional section of a course.**

Tuition was clearly the revenue for which deans felt most accountable, and over which they felt they had the most control. However, contingent factors of enrollment limits and available resources affected the level of control. ACCESS funding was mentioned as one area where deans could compete for additional funding, though the full funding did not always end up with the faculty. Deans discussed the uncontrollable element of base grants, and expressed ambiguity concerning the allocation basis.

The grant is fixed. I've not been able to find out if the grant that we get ... was ever prorated based on the increased expense of teaching [our students].

The money from grants pays the salaries. Generally, what's happened is that we've kept ... the formula that we've always had. If there's been a reduction, the reduction would have to be in the area of operating.

Lang (2001) cites grant allocations as a critical issue in an RCB/RCM system.

Deans talked about the expenses they could and could not control. The cost of salaries is an issue. The deans now have more autonomy in the area of hiring faculty, and consequently over the cost involved; however, incremental increases are made at the board level, adding an uncontrollable element to this cost. This situation has resulted in a need to increase enrollments.

In the spring of '99, [a raise of] 3.6 or 3.9% was negotiated with faculty and the increase from the government was 1.7%, so we have locked into spending more than we're getting, and the only way to make up that difference in any of the units is to bring in more students.

Issues of controllability impact quality, also. One example of this can be seen in hiring decisions, when controllable financial decisions guide decisions about tenure track and term faculty positions.

[We] need to be very careful about sessional teaching.

However, the decision to hire sessional instructors in order to save money has had positive results.

As dean, one of the big responsibilities is to maintain the quality of the program. I've never necessarily worried about term people not being committed. It seems to me that some of the best people are those who are here on a short-term basis ... I thought that their contribution was just great, even though they weren't necessarily doing research. They were bringing very recent [work related] experience into the program.

Finally, within the realm of accountability, deans discussed the skills they require, the training they need, and their purpose.

[RCB/RCM] added a total dimension to our functions and our duties ... If I were to say that new deans require 3 to 6 months of training [for the system], I won't be saying something totally out of place ... [RCB] requires another type of qualification before you actually become dean.

Due to the role ambiguity facing deans, Wolverton et al. (1999) support the idea that deans require distinct, preliminary indications as to what is expected of them. Role ambiguity also raises questions among deans as to their purpose.

I don't think our purpose here is making money. Our purpose here is to educate our students and to do research. We ... are in the business of making money ... at some deeper level I object to the huge and increased emphasis that we've had on money.

Lang (1993) also discusses the controversial aspects of entrepreneurial activities in universities, which raise questions about the purpose of universities.

The themes of autonomy and accountability can be seen acting together with regard to the pursuit of enrollment numbers and tuition revenue. One case in point concerns the ACCESS grant program. While the University of Lethbridge increased enrollment by an additional 18% over and above the positions provided through ACCESS funding from 1995 to 2000, the major centralized universities in the province averaged an increase of only 6.5% over and above the ACCESS positions in the same time period. Additionally, ACCESS positions granted to the U of L now represent 22% over and above the original enrollment numbers from the introduction of ACCESS in 1995/96. Comparatively, the other major universities in Alberta have been granted ACCESS positions representing 9% (each) of their original 1995/96 enrollments (Government of Alberta, 2001). These statistics indicate that deans at the U of L have been aggressively seeking students. Because of their autonomy, the deans have the freedom to create courses the students want, and through their accountability, the deans are required to increase their revenues in order to offset decreasing government monies. These issues are both addressed by a dean:

The main impact was to make faculties think seriously about where the money was coming from and to offer programs, both undergrad and grad, that the people wanted and were willing to come and to pay money for, and that way you had control over quite a bit of your revenue.

The topics of autonomy and accountability in an RCB/RCM system are numerous and require further research.

Another predominant theme defining decision-making in the system is the issue of contingent factors. The interviews made it clear that the faculties are unique, with extreme variations in characteristics. These variations have a direct impact on the use of RCB/RCM systems within the individual faculties. The discussions with the deans revealed perceptions about contingent factors, in every case covering issues such as size, facilities, structure, environment, costs, personnel, and students. As these contingent factors play such an important role in decision-making and directly affect autonomy and accountability, the notion of contingency theory is witnessed in this study.

The contingent factor of size is discussed most often in the literature when addressing the centralization/decentralization debate surrounding universities (DeHayes et al., 1994; Lang, 1993; Stocum and Rooney, 1997; Weir, 1994; West et al., 1997; Whalen, 1991). As previously discussed in the literature review, these authors present arguments for and against implementing RCB/RCM in large and small universities.

The size of a faculty is also a contingent factor in an RCB/RCM system, when caps are placed on enrollment, or when the program is so specialized that marginal costs exceed the additional enrollment revenue, as experienced at the U of L.

There is such a thing as economies of scale ... We still have to provide the services ... I don't think we have the critical mass that really allows us to take advantage of the budgeting model, and it's a more complex operation

... You can't just increase the tuition by bringing another 100 students, because some of the things that we teach have to be taught in small groups.

The contingent factors of task and type of employee play a role in universities also, since the nature of some programs can make it difficult to generate additional tuition revenue over and above the additional costs. These programs offer courses that are highly specialized or require highly skilled workers.

When you have this responsibility based budgeting, it's OUR responsibility to find the money and ... the only way we can find the money is to increase enrollment, but our courses are so specialized that it's very hard to increase enrollment.

It's expensive to teach [our students], and if you want to build a strong academic unit, with research and publication and service and teaching ... we need to hire expert [instructors], some of whom are making good money in [their] practice arena. So we have to be able to match [their salary].

Contingent factors regarding available facilities also exist, as pointed out by one dean.

One of the problems with [increasing enrollments] for us ... [is that] you can't open another section unless you have [the necessary facilities].

Another contingent issue regarding the extent to which organizations decentralize their decision structure is largely a function of the external environment and internal capabilities: "As the environment continues to change and the fit with it worsens, steps must be taken to initiate substantial change in internal structure and process" (Miller & Mintzberg, 1983, p. 71). The changing

environment facing the U of L was the government's decreased financial support of post-secondary education. Clearly, RCB/RCM came at a time of turbulence, initiating internal change at a time of external difficulties.

Deans expressed contingent factors regarding the decentralization of universities in general.

We have to be realistic, that whatever decentralization is put in place, there are so many constraints put upon us by the nature of who [universities] are, that the amount of discretion we have is very little.

The extensive list of contingent factors facing deans in an RCB/RCM system goes beyond the scope of this paper and deserves further research. Areas concerning the dean's training, the faculty/school, the university, and the unpredictable environment all present challenges and opportunities for deans.

The last theme defining the characteristics and boundaries of decision-making by the deans is communication. Every dean discussed the issue of communication and emphasized its importance. Communication was discussed in a variety of ways, including the transparency of the RCB/RCM system, the need for an effective information system throughout the entire university, and the importance of communication at every level, from dealing with outside groups, to communicating within the faculty, and finally, to communicating across the university. As decision-making is passed down to the deans in RCB/RCM, they must have timely, consistent and comprehensive information given to them. They must have the same information as central administration. A comment by

a dean emphasizes this point, expressing the need and desire for more information.

The accounting system, information system, that we have needs to be compatible with this decentralized system. I think we have good access to the information ... I wouldn't mind seeing a lot more transparency in our financial information.

Incomplete provision of information was recognized as possibly occurring not only from the top down, but also from the bottom up.

It's quite possible that [deans] may not give all the information [to central administration], because [they] have that autonomy, that freedom to do certain things within the framework of [their] own budget.

Deans recognize, however, that they must communicate their decisions to central administration and others within the university, since their choices affect the entire university. It is important not only to communicate ideas, but also to reach a consensus amongst the faculties and central administration, in order to make effective decisions.

This kind of system can work only if there's a consensus-building mechanism ... There have to be people sitting together, whether it's in ... deans' council [or other] meetings. Those are your consensus building meetings.

Schick, Birch, and Tripp (1986) support the notion that consensus is essential in the decision-making process and that budgetary decisions should be "made to benefit the whole university rather than specific organizational subunits" (p. 42).

Whalen (1991) prescribes the principle of coordination for an effective system, emphasizing the need for communication between the faculties and the university. One dean's comment confirms this need for strong communication in an RCB/RCM system:

I think it's in the nature of this system. The very design of this system requires more consultation, more cooperation, more coordination ... more coordinated decision-making, on the basis of arriving at a good policy.

### **Concluding Remarks**

To play on the words of Tucker and Bryan (1988), the dean in an RCB/RCM system may well become four dimensional, adding an intensified decisional role. Thus, the RCB/RCM academic dean may be coined a 'dove,' a 'dragon,' a 'diplomat,' and a 'decision-maker.' The results and analysis of my research indicate that Responsibility Centre Budgeting/Responsibility Centre Management adds a new dimension to the decision-making role of academic deans at The University of Lethbridge. The shift in decision-making from central administration to the deans, especially as it relates to budgetary concerns and consequently to other faculty/school issues, has an influence on the levels of autonomy and accountability held by the deans, and increases the need for communication. Contingent factors affect the degree of decision-making and, consequently, autonomy and accountability. These findings improve our understanding of the RCB/RCM process in public universities and of the dean's role in such an environment.

## **CHAPTER SIX: RESEARCH SUMMARY**

### **Discussion and Implications**

The purpose of this study was to determine the effects of Responsibility Centre Budgeting/Responsibility Centre Management (RCB/RCM) on the role of academic deans in a public university, in particular, The University of Lethbridge. The results indicate that the deans studied in this RCB/RCM system have increased decision-making roles, which are characterized and bound by issues of autonomy, accountability, communication, and contingent factors. The addition of the roles of resource generator and resource manager have expanded the deans' role to include all of the managerial functions proposed in Mintzberg's (1973) and Kotter's (1982) theories. The expansion in the role seen in this study supports the view of researchers (Gmelch et al., 1999; Lang, 2001; Montez & Wolverton, 2000) that deans in today's universities carry out roles similar to the roles of CEOs in the corporate world. What this study contributes, however, that none have done to date, is an analysis of the combination of the elements of a dean's role and the elements of an RCB/RCM system. Thus, this is the first study of its kind to draw an empirical conclusion, that deans in this decentralized public university do, in fact, carry out responsibilities not unlike those of general managers and CEOs, within the confines of their faculties/schools.

The process of RCB/RCM, however, is not well understood in not-for-profit organizations (Brown & Sprohge, 1987; Henke, 1988). The linear relationship

between the variables in an RCB/RCM process in for-profit organizations – efforts → results → rewards (Crum & Horshower, 1986) – does not exist with such clarity in not-for-profit organizations. The variables themselves in not-for-profit organizations are difficult to define, and are largely unexplored. Additionally, the theories from the for-profit sector do not transfer well to not-for-profit organizations (Brown & Sprohge, 1987; Henke, 1988).

The purpose of empowering managers with increased decision-making in not-for-profit organizations is to increase efficiency and effectiveness (Brown & Sprohge, 1987). Efficiency and effectiveness, based on profits and market capitalization in the private sector, are the measurable results of the RCB/RCM process. Efficiency is not so easily measured in universities, however, due to the difficulty of measuring the value of inputs and outputs (Henke, 1988; Morris, 1981; Tucker & Bryan, 1988). Effectiveness is equally difficult to measure. In the for-profit sector, one measures effectiveness by comparing outputs to objectives. The not-for-profit sector faces difficulties with this equation because, again, the measurement of outputs is complicated. Henke (1988) suggests that, when measuring effectiveness, public organizations compare “the satisfaction of perceived needs and the capability of the constituency to bear the financial load associated with meeting those needs” (p. 531).

This study thus sheds light on the first variable of the RCB/RCM system – effort. The dean exerts the effort to create results, and this study helps us to understand the role behind the effort. Trained managers normally exert the effort in the for-profit sector. Deans, however, are not traditionally trained in

management (Scott, 1979), and the implications of financial decision-making made by individuals whose expertise lies outside the realm of management are not well understood. Thus, another implication of this study is that assistants trained in budget preparation are invaluable to help deal with the level of accountability deans face, in addition to the workload RCB/RCM generates.

Whalen's (1991) recommended principle of decision-making addresses issues related to the effort component of the RCB/RCM process. He emphasizes the importance of decision making, theorizing that decisions are best made at the point of implementation. He states that deans need information-rich environments in order to make the best decisions, a point which was echoed in this study when deans emphasized the need for timely, accurate information in a transparent working environment. Communication emerged as a predominant theme within the decision-making role.

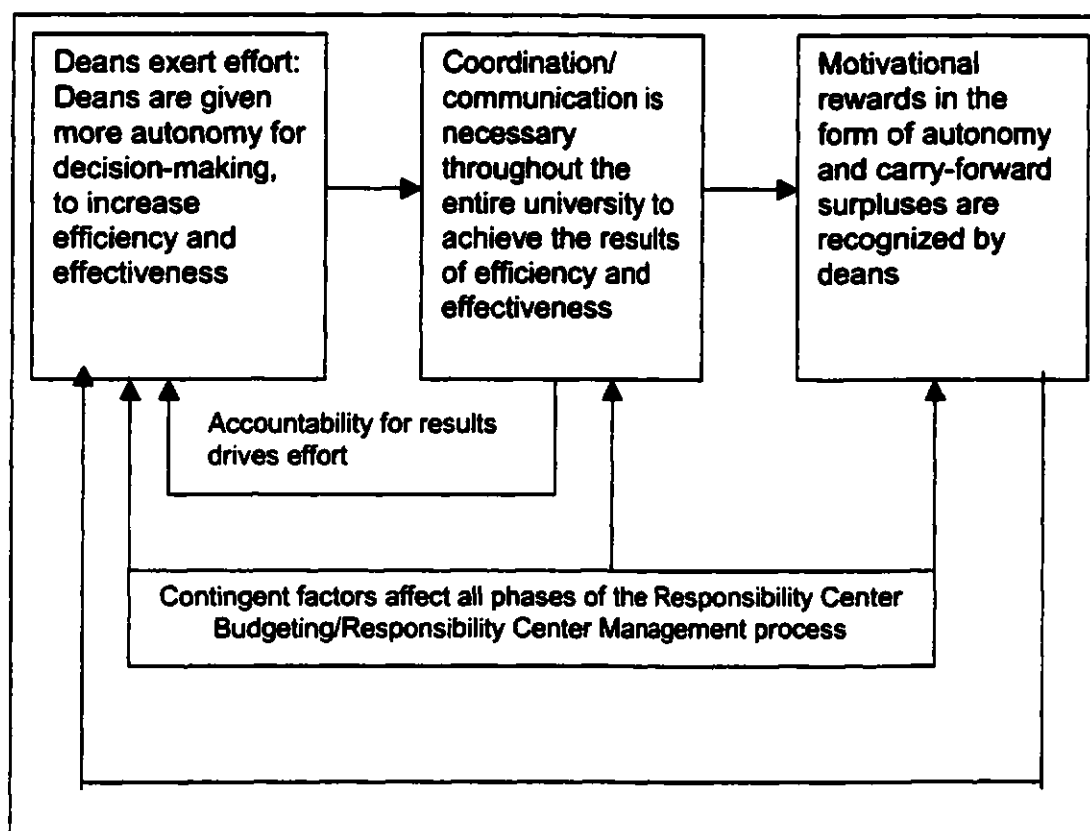
Whalen (1991) discusses factors necessary for universities to achieve their results. The measurement of efficiency and effectiveness is implied. To achieve results, Whalen prescribes the principle of coordination. The university and the deans must work as one community, with common goals clearly understood by all. The deans in this study confirmed this to be a necessary component of the system.

The last phase of the RCB/RCM process, rewards, remains a somewhat ambiguous topic in universities. Whalen's principle of motivation addresses the issue of incentives. Rather than monetary rewards, he suggests that clarity in the budgeting process and the organization's operations will provide motivation for

the system. When deans in this study discussed what motivated them, they referred more to the notions of autonomy and carry-forwards, than to the clarity of the system. Whalen (1991) and Stocum and Rooney (1997) also point to the importance of carry-forwards as motivators in the system. While deans at the U of L considered clarity to be an essential component of the budgeting system, there was no indication that this was a strong motivator.

Though subtle differences exist between Whalen's principles and the findings of this study, the major components of the RCB/RCM are present in both. Additionally, Lang's (2001) suggestion that contingent factors have a bearing on the system is witnessed in this study. Therefore, this study suggests that common universal themes drive the system, despite the ambiguities. Incorporating Whalen's principles and the results of this study, a model emerges that attempts to conceptualize the process of RCB/RCM in a university (Figure 19).

In this diagram, we see deans at the forefront of the system. The themes of autonomy, accountability, communication, and contingent factors all impact the deans' decision-making role. Recognizing and understanding these effects of RCB/RCM on the role of academic deans provides opportunities for further research in this under-studied area. The creative methods of grounded theory prescribed by Strauss and Corbin (1998) enabled the emergence of theory and themes in this study, which can now be taken forward for further studies of the phenomenon.



**Figure 19**  
**Model of RCB/RCM in a University**

### **Future Research**

This study implies that further research is necessary before the RCB/RCM process in universities can be fully understood. Comprehending the components of the process will help us to understand more fully the implications of the system for the dean's role. The exploratory research in this study suggests that academic deans in a public university carry out responsibilities not unlike CEOs of for-profit organizations. This theory alone deserves further research, because of the pivotal role deans play in universities. As the findings of this research are limited to one university using a partial RCB/RCM model, further testing of the

role of academic deans in other public universities practicing RCB/RCM would enhance this body of knowledge. Due to concerns of generalizability, further research is necessary to determine whether the results of this study agree with the experiences of academic deans elsewhere.

This research also poses a number of questions about the linkage between decision-making, accountability, autonomy, communication, and contingent influences. What impact do contingent factors have on autonomy? Can we pinpoint the motivators for deans in an RCB/RCM system? How is accountability measured in a system where outputs are so difficult to measure? Which contingent factors affect the accountability of deans? How much, and what type of, communication is necessary in an RCB/RCM system? These and other questions are starting points for future research. Empirical studies in these areas would allow us to better understand RCB/RCM systems and would further our knowledge about the effects of RCB/RCM on academic deans.

### **Conclusions**

The results and analysis of this study will be of interest and assistance to the academic deans and administrators at the U of L. In addition, I anticipate the information will be of benefit to academic deans and administrators at other universities currently using or proposing RCB/RCM.

This study makes two significant contributions to the literature on RCB/RCM and deans' roles. First, the research contributes insight into the level and types of decisions made by deans in an RCB/RCM system. The deans are,

in essence, the force behind the effort in the RCB/RCM process and are empowered to the level of CEOs, within their faculties/schools. Second, within a university's RCB/RCM system, the links between efforts, results, and rewards, and the resulting decision-making, autonomy and accountability that this system passes to the deans are shaped by the communication within the organization, and by a multitude of contingent factors.

These contributions provide new empirical knowledge in a relatively unexplored area. The University of Lethbridge provided me an opportunity to study the phenomenon of RCB/RCM and its effects on the role of academic deans. The resulting theory and themes offer insight into the role of deans in RCB/RCM systems, and consequently, to the process of RCB/RCM in not-for-profit organizations. The dean's role and RCB/RCM in a university are inextricably linked. Therefore, the more we learn about the role of an RCB/RCM academic dean, the closer we move to understanding the process of RCB/RCM. The more we understand RCB/RCM, the better we can define the dean's role.

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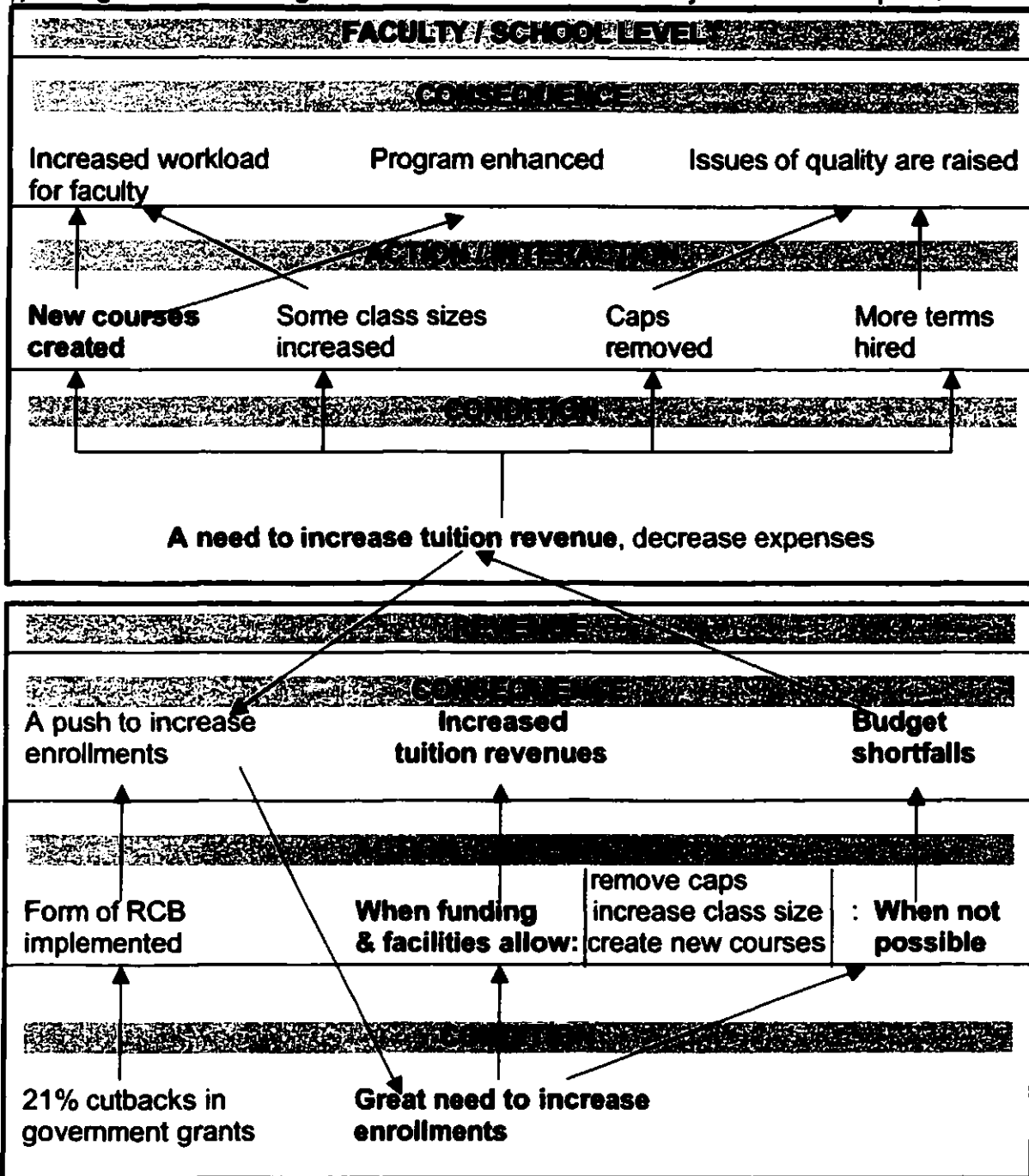
**APPENDIX A**

**SAMPLE OF THE PROCESS OF ANALYSIS,  
USING OPEN, AXIAL, AND SELECTIVE CODING  
(Adapted from Strauss and Corbin, 1998)**

<b>OPEN CODING</b>			
<p>Open coding allowed the information from the deans to be dissected into distinctive parts, which were then studied in order to identify areas of similarity, and areas of difference. Comments from the interviews were assigned labels, or 'codes'. Many comments received more than one code. Code names were created, dropped, and changed continually throughout the process, until a final list (Table 5) remained. Categories were also formed at this stage, into which the codes were positioned. (Table 5).</p> <p>An example of open coding is given here for the following two quotes from two of the deans:</p>			
<p><i>The dean is responsible for the unit, and all the money that comes in is essentially for the running of this unit ... it was so important that we increase our numbers.</i></p>		<p><i>The only way we can find the money is to increase enrollment, but our courses are so specialized that it's very hard to increase enrollment.</i></p>	
<p><b>Codes attached:</b> <i>accountability, tuition revenue, enrollment</i></p>		<p><b>Codes attached:</b> <i>enrollment, class size, contingent factors</i></p>	
<p>To provide specificity within the codes, detailed characteristics called 'properties' were identified. The dimensions of those properties were then charted on a continuum, to allow the alignment of the properties to emerge. This alignment was necessary for the development of patterns.</p> <p>Two of the many properties for the codes 'tuition revenue' and 'enrollment', and the dimensions of those properties are as follows:</p>			
<b>Tuition Revenue</b>		<b>Enrollment</b>	
<b>Properties</b>	<b>Dimensions</b>	<b>Properties</b>	<b>Dimensions</b>
Necessity	⇒ Yes	Importance of increasing enrollment	⇔ Great
New courses created to generate tuition revenue	None ⇔ Many	Restrictions of increasing enrollment	Lack of funding vs. Lack of physical facilities
<p>This process was repeated for every code.</p>			

**AXIAL CODING**

Axial coding was used to reconstruct the data that was broken down in open coding. Relationships between categories and codes were discovered at this stage, as the properties and dimensions of the codes were compared for similarities and differences. Following with the example used in open coding, 'tuition revenue' became a code within the category, 'revenue', and 'enrollment' became a code within the category 'faculty/school', and the relationships between these codes and categories were developed using paradigms. Sections of the paradigms for the categories of 'Revenues' and 'Faculty' illustrate this process.



**SELECTIVE CODING**

An analysis of the connections between the paradigms enabled two peripheral categories and one core category to emerge. These final categories depict the storyline of the data. The intertwining links within the categories are illustrated using a conditional matrix (Figure 10).

<b>Peripheral Category:</b> <b>Role of the Academic Dean:</b> <b>RCB</b>	Revenue	<b>Peripheral categories are connected by four themes:</b>  <b>1. Autonomy</b>  <b>2. Accountability</b>  <b>3. Communication</b>  <b>4. Contingent Factors</b>  <b>These themes define the storyline*.</b>	Faculty/School	<b>Peripheral Category:</b> <b>Role of the Academic Dean:</b> <b>Personnel Management</b>
	Expenses		University	
	Carry-forward		External Environment	
	Administration			

**\*Core Category: Level of Decision-Making in an RCB/RCM System Adds a New Dimension to an Academic Dean's Role in a Public University**