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Exploring the Impact of Entrepreneurial Practices in Higher Education:

A Case Study

by

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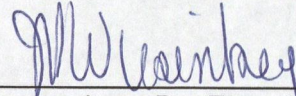
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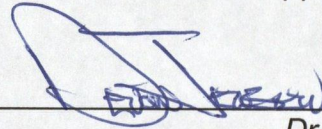
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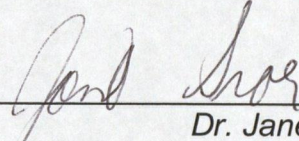
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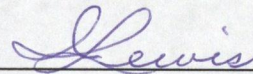
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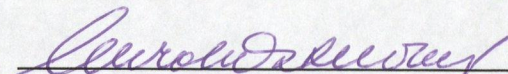
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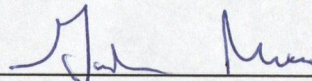
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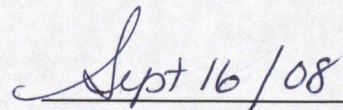
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Abstract

Traditional higher education institutions are undergoing a major transformation that is requiring them to respond to the new demands of a global market economy. These institutions are experiencing challenges from key external environmental forces of globalization and the market economy, as well as key internal forces that are together affecting the traditional paradigm of higher education. The forces examined in this study include government accountability of higher education, the growth of global knowledge, and advanced technology, and the changing public perception of the role of institutions of higher education.

The purpose of this study was to explore the impact of entrepreneurial practices at one Western Canadian traditional university. This case study design examined two specific graduate programs (Masters and Doctoral) within the Graduate Division of Educational Research (GDER), in the Faculty of Education at the University of Calgary. In-depth interviews with 16 central and senior administrators, and faculty members provided the bulk of data collected. Secondary data included organizational documents and research literature pertinent to the study's purpose.

This study identified two areas of concern to participants' interviewed – inconsistent policies and practices regarding entrepreneurial innovations, and academic resistance to these entrepreneurial practices.

This study appears to indicate that in order for the adoption of entrepreneurial practices and innovations to be successful, clear and consistent policies and guidelines must be in place, and academic resistance addressed.

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Dedication

This dedication is to the people who shared their wisdom and encouragement throughout my pursuit of lifelong learning.

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List of Symbols, Abbreviations and Nomenclature

Symbol	Definition
AAECD	Alberta Advanced Education and Career Development
CRDS	Community Rehabilitation and Disability Studies
EdD	Doctor of Education
GDER	Graduate Division of Educational Research
G7	Group of Seven
FGS	Faculty of Graduate Studies
MEd	Masters of Education
MSc	Masters of Science
NRGTF	New Revenue Generation Task Force
OECD	Organization for Economic Co-operation and Development
OTP	Outside Tuition Policy
RGG	Revenue Generation Group

CHAPTER ONE: EXPLORING THE IMPACT OF ENTREPRENEURIAL PRACTICES IN HIGHER EDUCATION

Introduction

Traditional higher education is undergoing a major transformation that appears to be moving it towards becoming “commodified” (Bok, 2003; Martin, 1998). New cultural, social, political, and economic environments, each one the consequence of globalization, means that traditional forms of higher education may no longer adequately meet society’s need to remain competitive in the market economy (Kwiek, 2001). To this end, key external forces of globalization and the market economy appear to be affecting the traditional paradigm of higher education. These forces include government accountability of higher education; the growth of global knowledge and advanced technology; and the changing public perception of the role of institutions of higher education (Altbach, 1999; Deem, 2001; Newman, Couturier & Scurry, 2004). The extent to which these external environmental forces have in turn triggered changes to aspects of the internal environment of the traditional institution, such as academic governance, culture, values, and roles are also affected (Hanna, 2003; Kwiek, 2001; Levin, 2003).

Because of the challenges and opportunities present in a changing world, the traditional institutions of higher education are evolving in many ways to respond to these new demands on higher education (Duderstadt, 2000). The successful evolution of higher education in the global market economy may include incorporating entrepreneurial innovations into traditional organizational

structures, managerial practices, funding sources, and technologies (Duderstadt, 2000; Bok, 2003).

These entrepreneurial innovations in higher education institutions are services or programs made available to “a range of paying clients, or customers”, (Barnett, 2005, p.52) or otherwise known as “students”, becomes a vehicle for increasing the ability of higher education institutions to fulfill a market niche. It is this background of “academic capitalism” (Slaughter & Leslie, 1997) that the emergence of entrepreneurial innovations spawned new ways of conducting the business of academia. However, the concepts of entrepreneurial and innovation itself are far from clear.

The concept of entrepreneurial invokes elements of capital risk-taking ventures in order to generate some kind of return on its efforts. Capital is not necessarily financial but can be cultural, intellectual, or social capital that is at risk (Barnett, 2005). For institutions of higher education, the adoption of entrepreneurial ventures is the pursuit of growing capital, whether that is financial, intellectual, social, or cultural. Universities are pursuing a combination of traditional academic and business practices to become entrepreneurial in nature in order to remain viable and successful in an evolving market economy (Bok, 2003; Parker, 2002).

The concept of academic innovation is the development of “an entity, such as a new technology, idea, product, policy, or program that is introduced to potential users in the organization [and outside the institution]” (Lewis & Seibold, 1993, p.323). Higher education institutions are developing initiatives for

innovation to meet the significant changes in the student demand side of the educational market place. The demand for life-long learning, the need for accessible programs outside the traditional on campus format, and the need for professionals with new skills are aspects of the new emerging markets (Mora & Villarreal, 2001).

When the two concepts of entrepreneurial and innovation are combined in higher education institutions, initiatives are developed that espouse new ideas and practices that are typically outside the realm of conducting traditional academic business. This convergence of entrepreneurial and innovative practices created a drive to secure an economic return (profit) to remain competitive and meet the educational needs of the public in these global market conditions.

This evolving paradigm for higher education institutions provided the environmental context for the researcher to explore the impact of entrepreneurial practices on one Canadian Western traditional institution of higher education. Incorporated in 1966, the University of Calgary, as of December 2007 is the educational home of approximately 27,000 full and part-time students, 1731 academic staff, 976 academic sessionals, and 54 senior administrators (www.oia.ucalgary.ca). The University of Calgary prides itself in being a comprehensive research institution, with research revenue of 252.1 million dollars.

Like all institutions of higher education worldwide, the University of Calgary is undergoing changes to its governance structure, culture, values, and

roles, in response to the external environmental pressures of a global market economy. One pivotal external environmental impact was the 21% reduction to institutional base grants over a three-year period by the Ralph Klein administration (1994 – 1997), when the provincial government instituted performance accountability measures for Alberta's postsecondary education system.

This case study design allowed the researcher to explore in-depth the nature of the research goal and the questions exploring entrepreneurial practices in higher education. The exploration of a single case: the Graduate Division of Educational Research (GDER) outside tuition policy programs (Masters and Doctoral programs) in the Faculty of Education at the University of Calgary provided detailed, in-depth data collection involving multiple sources of information that provided a rich, descriptive analysis. The resulting analysis of this case study provided important awareness and perceptions of the participants involved in entrepreneurial innovations in higher education.

Five core inter-related themes (market economy, accountability, advance technology, academic roles, and entrepreneurial innovation) supported by the literature emerged from the data analysis. Two less consistent themes (*academic resistance* and *shifting rules of engagement*, not predicted in the literature emerged, and are viewed through the lens of the reframing approach. Bolman and Deal (1984, 1991) provided a social constructivist view that emphasizes four aspects of the organization called frames (political, structural, symbolic, and human resource), from which to interpret the two discrepant themes. A

conceptual model developed for the successful integration of entrepreneurial innovation in higher education institutions informs the readers' and contributes to the knowledge base about the transformation of traditional higher education in order to meet the needs of a student population in a global market economy.

Statement of the Research Goal

The research goal is to explore the impact of entrepreneurial practices on one Western Canadian traditional higher education institution, in order to understand how entrepreneurial practices may be contributing to the evolution of traditional higher education, defined as traditional by way of its educational mission statement: "The University of Calgary is a place of education and scholarly inquiry. Its mission is to seek truth and disseminate knowledge" (www.fp.ucalgary.c/secretariat/mssion.html).

Research Setting

The case study examines specific, innovative entrepreneurial programs offered by the University of Calgary. Distributed learning programs that have an outside tuition policy (OTP) fee structure, whereby tuition fees come directly back to the faculty's budget, less 15% levied by the University of Calgary's financial services for overhead costs, and non-traditional practices of delivering the program (on line, work-study model) are defined as entrepreneurial innovations. Although transnational programs are also OTP programs, because the programs are onsite versions of the standard classroom lecture design only delivered in another country, these programs are not included in this study. The distributed learning OTP programs meet the key sampling criteria in this study because the

course delivery format goes beyond delivering “an onsite version” of the program.

Table 1 outlines the graduate level distributed learning and transnational programs. The transnational programs are included to illustrate the number of OTP programs that were available at the University of Calgary at the commencement (March 16, 2007) of this study.

Table 1

Graduate Level OTP Programs, University of Calgary

Distributed Learning Programs	Transnational Education Programs
Graduate Division of Educational Research On-line programs Master of Education (MEd) <ul style="list-style-type: none"> • Workplace and Adult Learning • Curriculum, Teaching and Learning • Educational Contexts • Educational Technology • Teaching as a Second Language 	Faculty of Graduate Studies/ OLADE/CIDA Delivered on site in Quito, Ecuador Master of Science (MSc) <ul style="list-style-type: none"> • Energy and the Environment Schulich School of Engineering/ Petroleum University of Tehran/ National Iranian Oil Company Delivered on site between University of Calgary & Petroleum University of Tehran, Iran Master of Engineering (MEng) <ul style="list-style-type: none"> • Chemical Engineering
Doctor of Education (EdD) On line & Summer Institutes <ul style="list-style-type: none"> • Educational Leadership • Higher Education Administration 	Schulich School of Engineering/ Haskayne School of Business/ Sharif University of Technology/ Ministry of Petroleum of Iran Delivered on site at the Sharif University of Technology, Tehran, Iran Master of Engineering (MEng) <ul style="list-style-type: none"> • Project Management Specialization

Distributed Learning Programs	Transnational Education Programs
<p>Master of Education (MEd) Work study model & on line</p> <ul style="list-style-type: none"> Community Rehabilitation and Disability Studies 	<p>Schulich School of Engineering/ Faculties of Environmental Design, Law, Haskayne School of Business/ Universidad San Francisco de Quito Delivered on site at the Universidad San Francisco de Quito, Ecuador</p> <p>Master of Science (MSc)</p> <ul style="list-style-type: none"> Sustainable Energy Development
	<p>Haskayne School of Business/ Sharif University of Technology/ National Petrochemical Company Delivered on site at Sharif University of Technology, Tehran, Iran</p> <p>Executive Master of Business Administration (EMBA)</p> <p>Haskayne School of Business/ University of Petroleum, Beijing, China Delivered on site between University of Petroleum and University of Calgary</p> <p>Master of Business Administration (MBA)</p> <ul style="list-style-type: none"> Global energy Management and Sustainable Development Specialization (GEMS)

Significance of the Research Study

Higher education institutions need to become more responsive to an ever-changing global environment (Kezar, 2001b). The types of changes institutions may have to initiate will go beyond the traditional adjustments for growth to changes that will necessitate a re-thinking of assumptions of how higher education institutions should operate in order to remain viable (Kezar & Eckel, 2002). According to Bergquist (1998), higher education institutions need to move away from being strictly bureaucratic research-oriented institutions by adopting new ways to meet their educational mandates (as cited in Kezar, 2001b).

The significance of the research study is in its ability to expand our understanding of how successfully run entrepreneurial programs may contribute to the transformation of traditional higher education to meet the needs of a student population requiring new distributed learning methods. Higher education institutions do change (Kezar, 2001b); the challenge is to understand how and what changes are most appropriate in meeting public educational need with institutional missions and mandates. The specific issues identified in this study, the subsequent implications for administrators of institutions of higher education, and recommendations regarding how to adopt successful entrepreneurial innovations will be shared with administrators and faculty members involved in this study.

The researcher makes recommendations regarding:

1. entrepreneurial activities and the academic tenure and promotions procedures;

2. entrepreneurial innovations and the University's official policies and practices;
3. entrepreneurial innovations and the University's governance structure;
4. entrepreneurial policies, practices, and the University's mission; and
5. entrepreneurial innovations and the University's academic values.

Research Methodology

Using a case study methodology, a constructivist epistemology grounds the research design with an interpretive theoretical perspective. A detailed qualitative approach, rather than a quantitative approach explores the change process in higher education because of the interpretive nature of the study (Kezar & Eckel, 2002). The specific case is the Graduate Division of Educational Research (GDER) outside tuition policy programs (Masters and Doctoral programs) in the Faculty of Education at the University of Calgary.

The researcher argues that specific graduate level, distributed learning programs that use an OTP fee structure represents entrepreneurial innovations within traditional institutions. These distributed learning programs are entrepreneurial initiatives because they are not subject to the University of Calgary's Financial Services and Alberta Advanced Education and Career Development (AAECD) standard policies. These programs' OTP status, whereby tuition fees come directly back to the faculty's budget, less 15% levied by the University of Calgary's financial services for overhead costs, define an entrepreneurial innovation.

The subject sample selection are drawn from those involved either directly (faculty members and senior administrators) or indirectly (central administrators) with the two identified graduate programs. The 16 study participants fell into one of three categories: central administrators (3 participants), senior administrators (4 participants), and faculty members (9 participants), with the exception of the program officer (included in the faculty member count). Data collection methods included semi-structured face-to-face interviews, review of internal program documents, and the researcher's field journal. Data analysis procedures were systematic, using a multi-layered data analysis approach. Member checks and triangulation of data sources to enhance the issues of credibility, transferability, dependability, and confirmability achieved trustworthiness of the research study.

Research Questions

The overall research question was "What are the impacts of entrepreneurial practices and innovations on a traditional higher education institution as expressed by the research participants?"

Specific, sub-questions dealt with the impacts that these entrepreneurial practices and innovations have on the following aspects of the institution:

- roles and responsibilities (training, skills and characteristics) of academics;
- institutional rules and policies regarding entrepreneurial innovations;
- institutional culture and values; and
- purpose and meaning of higher education.

Definition of Terms

Table 2

Definitions of Terms

Term	Definition Used in this Research Study
Culture:	"the beliefs, values, and attitudes that structure the behavior patterns" of individuals in organizations (Merriam, 1998, p.13).
Distributed learning:	A system and process that uses a variety of technologies, learning methodologies, on-line collaboration, and instructor facilitation to achieve applied learning results not possible from traditional education in a truly flexible, anytime/anywhere fashion www.edb.utexas.edu/resta/itesm2002/glossary/glossary_d.html . "Often is used synonymously with on line learning" www.neiu.edu/~dbehrlic/hrd408/glossary.htm .
Entrepreneurial practices in higher education	those which make "a profit from teaching, research, and other campus activities" (Bok, 2003, p.3). Considine and Marginson (2001) called enterprise [entrepreneurial] universities "a traditional academic organization with business practices mixed in" (as cited in Parker, 2002).
Globalization:	"a multi-dimensional process that involves economic, cultural and political developments" (Wagner, 2004, p.10). ..."economic and political changes in business and labour markets, as well as social and cultural effects" that occur worldwide (Deem, 2001, p.8).
Innovation:	"an entity, such as a new technology, idea, product, policy or program that is introduced to potential users in the organization" (Lewis & Seibold, 1993, p.323) ... "referring to a tangible product, process or procedure within an organization that is new to a social setting, intentional in nature rather than accidental", and has a discernible impact on others in a organization (King & Anderson, 1995 as cited in Kezar, 2001, p.14).
Outside tuition policy:	"credit courses, which are not subject to Alberta Advanced Education and Career Development (AAECD) policies in terms of tuition fee. Specific tuition fees are established by the department offering the courses and fees can cover additional costs such as sites away from the permanent campus www.fp.ucalgary.ca/financial/policies/outside_tuition.htm).

Term	Definition Used in this Research Study
Paradigm:	is an accepted model or pattern, a set of inherited preconceptions, shared rules and assumptions (Kuhn, 1996, p.23).
Paradigm shift:	A paradigm shift occurs when the challenged paradigm is solidified and amalgamated (Kuhn, 1996). "...a whole new way of viewing reality" (Crotty, 1998, p.35). A crisis precipitates the exploration of alternatives to long held assumptions resulting in challenging the paradigm.
Policy: (university)	States the University's position on issues that have university-wide application and exemplifies its governing principles that fulfill its mission. https://pr1web.ucalgary.ca/UofCPandPA_R1/PFPPublicView.aspx?version=17&doctype=Policy&view=true
Practice: (academic)	Those that articulate the method by which a policy is carried out and outlines as set of instructions that must be followed in order to achieve the policies specific purpose. https://pr1web.ucalgary.ca/UofCPandPA_R1/PFPPublicView.aspx?version=17&doctype=Policy&view=true
Traditional higher education institution:	"a gathering place where scholars and students engage in mutual enterprise of learning and research, regardless of the immediate economic benefits" (Margolis, 2004, p. 34). "Four key traditional values of universities..., are the public interest value of universities, critical dissent and academic freedom, professional autonomy and scholarly integrity, and democratic collegiality" (Currie, 2004, p.53).
Values:	"the customs, standards of conduct, and principles considered desirable by a culture, a group of people, or an individual" (Shulman, 1992, p.27); "...represent the relative importance or desirability we accord a particular end-result or way of behaving" (Arnold, Feldman & Hunt, 1992, p.41)

Study Limitations and Delimitations

The scope of the study is the Masters and Doctoral level (OTP) programs, (see Table 1, p.6) within the Graduate Division of Educational Research in the Faculty of Education at the University of Calgary. The transferability of the study's findings is limited to higher education institutions with similar programs.

The nature of the subject data collected and the data analysis method employed limits confirmability (Locke, Spirduso & Silverman, 2000).

The study is potentially limited by the personal opinions of the interviewees selected and their close involvement with the programs studied (Kezar & Eckel, 2002). An additional potential limitation in the study is that of the researcher, who collected, analyzed, and interpreted the data. Appropriate qualitative methods were incorporated within the study design to address these two limitations as best as possible.

Summary

This study investigated the impact of key entrepreneurial practices on one Western Canadian traditional higher education institution. The researcher utilized a qualitative research case study approach to collect and analyze data related to the Masters of Education and Doctor of Education programs in the Graduate Division of Educational Research, Faculty of Education at the University of Calgary. Faculty members, senior and central administrators interviewed examined program practices that both supported and hindered the adoption of these entrepreneurial innovations in this traditional higher education institution.

CHAPTER TWO: REVIEW OF RELATED LITERATURE

During the course of this literature review, the researcher perused articles in a range of journals, for example, Administrative Science Quarterly, Harvard Business Review, New Directions of Higher Education, Educational Policy Analysis, Public Administration Quarterly, Comparative Education, The Academy of Management, Tertiary Education and Management, and Organizational Studies, to name a few. There were also numerous books written by academic scholars in the area of educational change, academic capitalism, globalization and higher education, and entrepreneurial universities. Examples of key words used for the literature search: entrepreneurial, innovation, academic values, culture, governance, academic capitalism, higher education, globalization, market economy, managerialism, academic enterprise, transformation, paradigm, evolution, organizational models and theories.

In order to frame the literature review for relevance to the topic area under investigation, a historical perspective of higher education provides an understanding of how the modern academic institution evolved. A consistent theme of key external environmental forces, a result of the new global market economy, affecting the traditional higher education institution emerged from the literature, subsequently leading authors to write on the consequent impact on the internal academic elements of academic governance, culture, values and roles.

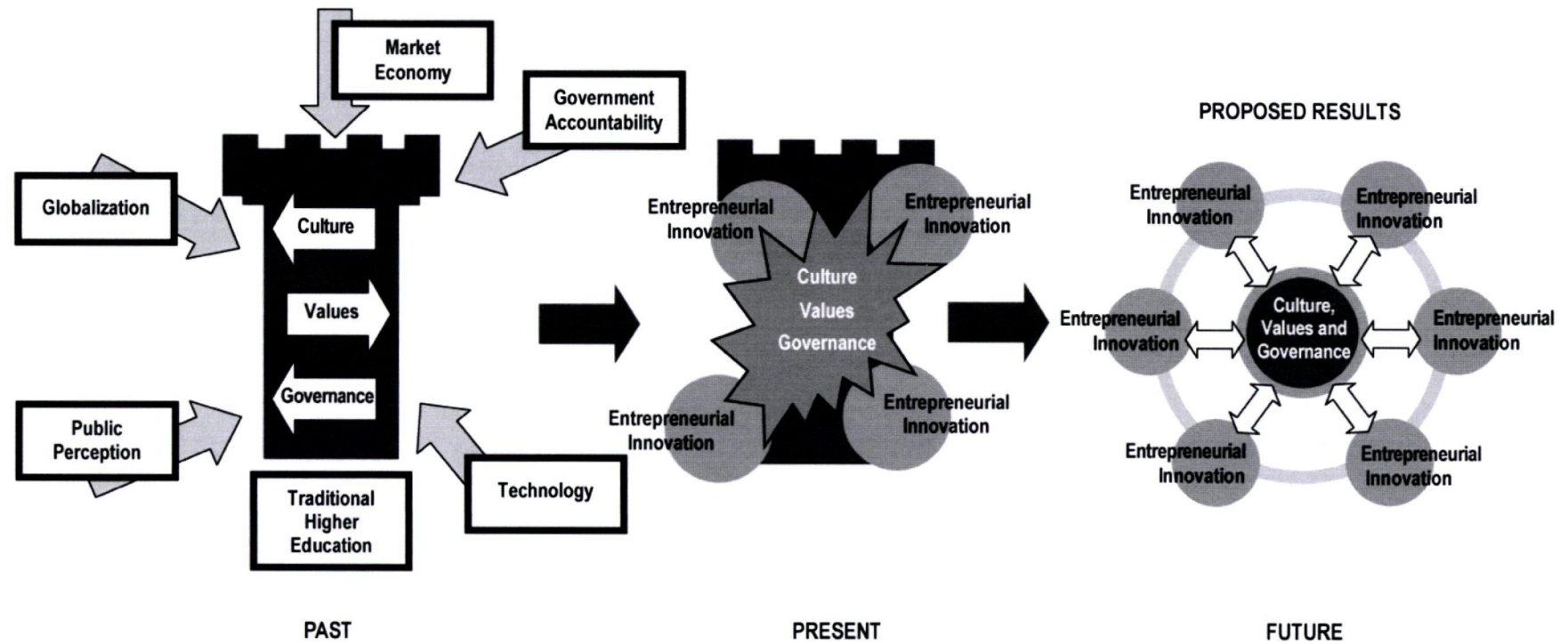
The rational and focus of chapter two is to understand what the literature has to say on the impact that entrepreneurial practices and innovations has had on higher education. The researcher presents a framework of literature from

which, to understand the purpose of this case study. This literature review provides a brief historical perspective of traditional institutions of higher education and explores the impact of key external environmental forces of globalization and the market economy including government accountability of higher education, the growth of global knowledge and technology, and the changing public perception of the role of traditional higher education in the western world. The overall result of these forces has been changes to the traditional internal environment elements of academic governance, culture, values and roles, and the subsequent impact on educational policy development undertaken by institutions of traditional higher education, in order to cultivate entrepreneurial innovations to remain viable. In addition, the literature review discusses organizational change theory with brief descriptions of seven main change models (teleological, evolutionary, life cycle, dialectical, social cognition, cultural and reframing) as they relate to the evolution of higher education's governance, culture, values, and roles.

This literature review begins with the researcher's preliminary model "The Evolution of Higher Education Institutions" (Figure 1) that illustrates her concept of how entrepreneurial educational innovations intersect with the external and internal environmental forces acting on traditional higher education to result in a transformational process. The researcher proposes that these forces might result in a new paradigm for traditional higher education. The preliminary model demonstrates how the key traditional elements such as culture, values, and academic governance in the institution's core nucleus interact in a fluid, responsive and dynamic process with institutional innovative entrepreneurial

practices. James (2000) described an element called 'boundarylessness' that needs to occur so that an organization can expand its capacity for the future. The power of learning and opened connections across external and internal organizational boundaries occurs because of "boundarylessness". This element expands the opportunities for the organization to evolve, change and adapt to the new environment, thus allowing for collective learning within the organization, and ultimately, the broader community. Figure 1 reflects the researcher's preliminary conceptualization of how 'boundarylessness' results in the new emergent model of a higher education institution. In the final figure, the researcher anticipates how this preliminary model will evolve to reflect the future of higher education.

Figure 1: The evolution of the institutions of higher education



Traditional Higher Education Institutions

Over the past twenty years, higher education institutions world-wide have been undergoing a major paradigm shift related to strategic focus, structures, processes, core values, and relationships (Parker, 2002; Levin, 2003). This evolution is a result of a variety of external environmental forces intersecting with the internal environmental elements of the institution. Globalization, an external environmental force, is a major contributing factor to changes in the role of the traditional higher education in the marketplace (Deem, 2001). An internal environmental element, which appears to be contributing to the change is the perceived shift from traditional academic inquiry and knowledge building, to a business perspective that emphasizes the pursuit of revenue to support the higher education institutions (Karelis, 2004).

This section reviews the historical underpinnings of higher education in Western culture to provide a foundation from which to understand the key external environmental forces of globalization, and its accompany market economy that have resulted in the current pressures to change Western institutions of higher education.

A Historical Perspective of Higher Education in Western Culture

Foundational to understanding the changing role of higher education in a market economy is a historical perspective of the modern postsecondary institution. The main points of a market economy are freedom from any sanctions imposed from government, decreasing public support for social services, reducing government regulations for the conduct of enterprises, and privatizing

state-owned enterprises. The overall result of these moves is a shift from government responsibility for the “public good” concept to individual responsibility (Martinez & Garcia, 2000).

A political philosophy that critically questioned the status quo as the root of academia began with the concept of higher education in the era of liberal philosophers such as Plato, Aristotle and Socrates (400-300 B.C) who were, “committed to the formation of virtuous persons through the pursuit of knowledge” (Ruch, 2004, p. 99). Other status quo philosophers believed that these virtues developed by engaging in life experiences, and that learning wisdom was the key outcome. At this time, only the elite members of society were responsible for this pursuit, to the greater good of the whole society (Cohen & Fermon, 1996; Ruch, 2004).

Subsequently, the Middle Ages (4th – 15th century, A.D.) was a time when medieval Europe was becoming a religious civilization due to the decline and collapse of the Roman Empire, and the ascendance of the Church (Cohen & Fermon, 1996). Higher education began to mean transmitting knowledge and training in a few key professions, mostly within the church. The church became a privileged training ground where higher education served to produce the elite of society (Altbach, 1999; Martin, 1998).

During the Age of Enlightenment (18th century), political movements began to frame the concepts of individual rights, the rule of law, as well as the importance of self-government through elected officials in a period known as classical liberalism. The industrial age expanded the concept of liberalism with

increased voting rights, education, and economic progress. Wagner (2004) described this period as the era in which the ideas of regulation by market mechanisms became fully accepted. Mass literacy and a more highly educated mass population contributed to the success of industry arising from the new political reality of capitalism (Altbach, 1999; Cohen & Fermon, 2004; Martin, 1998).

In the mid-nineteen century, governmental reforms in Germany resulted in a university model developed under the leadership of several German philosophers such as Wilhelm von Humboldt, Schleiermacher, Kant, and Fichte (Delanty, 2004). The state gave significant resources to universities to conduct research aimed at national development and industrialization, and to assist in defining the ideology of the new German nation-state. The primary purpose of higher education became to support the national goal of producing “informed citizens” of the nation-state (Altbach, 1999a; Kwiek, 2001; Smith, 2004) who had a sense of national identity and knowledge about their country.

The modern Western university in the twentieth century now was required to meet the broader needs of the nation-state for a highly trained workforce with new scientific knowledge and academic certification. As a result, higher education institutions had a special place in society, afforded a degree of autonomy separate from the marketplace, and given continued support with public funds (Altbach, 1999; Newman, Couturier & Scurry, 2004).

Over the past 50 years, the mandate of the modern higher education institution has continued to undergo many transformations. By the middle of the

twentieth century, disciplinary specializations separated, vocational training introduced, basic and applied research became distinguished, and professional associations were established (Delanty, 2004).

External Environmental Forces on Traditional Higher Education Institutions

This section discusses the key external forces of globalization and the market economy on traditional higher education institutions as the government accountability shifted for higher education, the growth of global knowledge and advance technology grew, and ideological support from public stakeholders shrank.

Globalization and a Market Economy

With the advent of globalization, economic and technological forces caused another paradigm shift within higher education. Understanding the principles of a market economy becomes paramount when attempting to decipher the multiple changes the traditional institution of higher education is experiencing today. The original term for market economy was, 'political economy', which originated in the 18th century to explain the conditions under which production was organized in the nation-states of the newborn capitalistic system (Cohen & Fermon, 1996).

Leslie and Johnson (1974) defined a market as consisting "of those firms from which the consumer can buy a well-defined product...(if the conditions of sale are sufficiently favorable)" (p.5). The "free market works to allocate goods and services in a way that "maximizes the utility" of all involved, and therefore simultaneously serves individual and societal interests as well as balancing

conflicting demands on resources” (Engle, 1984, p.21). This contrasts with the previous social democracy in that the market has replaced the state as the main mechanism of distributing goods and services (Deem, 2001). Smith (2004) maintained that price-setting markets, such as ones associated with capitalism, not only control who gets what but also for how much.

The literature describes a rise in the Western world of a market economy because of globalization (Curry, 2001; Deem, 2001; Kweik, 2001). Globalization defined as the “economic and political changes in business and labour markets, as well as social and cultural effects” (Deem, 2001, p.8). Globalization allows the spread of free-market economics on a global scale, and the rise of capitalistic multi-national corporations. The market economy has promoted privatization, commercialization, deregulation, and re-regulation of state functions (Deem, 2001; Wagner, 2004). As a result, in the United States new legislation and regulations allowed higher education institutions to commercialize, and take out patents on products discovered with federally funded research money, and allowed the accreditation of private-for-profit higher education institutions, which began to compete for students with the traditional institutions (Slaughter & Rhoades, 2004).

Traditional Higher Education and the Global Market Economy.

The changing environment in the globalization and market economy era affected the role of traditional higher education. According to Fuller (2005), employers are not as concerned about the growth in knowledge as much as the increased value that the global market economy attached to educational degrees

and credentials. Higher education institutions are no longer ivory towers where historically the pursuit of knowledge was for the elite, now their role is to provide a skilled workforce (Deem, 2001; Mora, 2001). One consequence is the growing competition for professional credentials that make individuals' more 'marketable' in an increasingly competitive marketplace. The shift from an information society to a global market economy resulted in knowledge valued as an economic investment (Rinne & Koivula, 2005).

In the present global market economy, traditional higher education institutions struggle to adapt its culture, values, and academic governance structure to fit into this new economic partnership with the nation-state. The global market economy and the development of political-economic transnational bodies such as the Group of Seven (G7) leading industrialized countries pressured nation-states to pursue policies that no longer support the culture and function of the university in the twenty-first century. Instead, universities are to enhance the competitiveness of the nation-state in the global marketplace (Deem, 2001; Kwiek, 2001).

Deem (2001) suggested that this affected the purpose of traditional higher education institutions to produce revenue, and then re-invest into entrepreneurial activities within the educational institution to enhance the competitiveness of the nation-state. These market-like behaviours are represented in increased faculty competition for monies from external grants and endowment funds; increased student fees; patenting, royalty and licensing agreements; the development of partnerships with industry with for-profit components; the sale of university

promotional products (i.e.: university logo sportswear); and profit sharing with food services and bookstores (Slaughter & Leslie, 1997). Ultimately, traditional higher education institutions have become “academic capitalists” in order to obtain critical resources once supplied by government funding (Slaughter & Leslie, 1997).

According to Engle (1984), government policy makers now see education as a form of investment in programs that are beneficial to the existing “growth sectors” that contribute to economic growth, and support market analysis principles (p.23). “Social investment” by the government in higher education is to assist the institution to adjust to the current economic trends, as measured by its ability to support itself. Engle described the marketing components of social investment as the faculty and administration responsibility to increase the “productivity” of the students.

Regional and national governments, since the mid-19th century, regulated and funded traditional higher education institutions in the Western world. The higher education system in Canada experienced educational policy trends similar to those of other North American and European higher education systems (Young, 2002). Canada has a decentralized form of education in that the federal government shares powers with each province and territory. Therefore, the provincial governments are in a position to influence all aspects of formal education policies (Deem, 2001; Organization for Economic Cooperation and Development (OECD), 2003; Rollings-Magnusson, 2001).

Accountability of Higher Education Institutions.

Higher education institutions functioning in a global market economy required the adoption of business principles such as financial accountability. Newman, Couturier and Scurry (2004) explained that traditional publicly funded higher education institutions competing for students, and financial resources with other nonprofit and private for profit educational institutions, led to more public accountability and receptiveness from the 'ivory tower' to examine its current role in the marketplace. They postulated that this shift of traditional higher education institutions participating in market-like behaviour was taking place because governmental policy makers moved toward a market-oriented system. The authors emphasized that there is a perception from the public and policy makers that traditional educational institutions are slow to demonstrate financial accountability (Newman, Couturier & Scurry, 2004). By forcing market realities on them, higher education institutions must now demonstrate that their services are both "reasonable" and worth the cost in order to legitimize the value to students (Alexander, 2001; Berdahl & McConnell, 1999; Lui & Dubinski, 2000).

The pressure for market-like behaviour from traditional higher education institutions increased the need to develop new accountability procedures, as established marketplace systems limit the ability of the traditional institution of higher education to compete successfully in the marketplace and to meet the new marketplace criteria of performance (Newman, Couturier & Scurry, 2004; Ruch, 2004; Smith, 2004).

According to Alexander (2000), tying government funding to the institution's performance indicators and measurable accountability was happening worldwide. In the United States, for example, there was a growing movement to tie government academic funding formula to institutional and student performance standards. Government officials determined that linking funding to academic performance not only makes the institution more efficient but more accountable to the state. Alexander (2000) noted that this U.S. and European trend of financial and performance based accountability of higher education institutions led to the Alberta and Ontario provincial governments in Canada to adopt performance-based funding by assessing the institutional quality, research, and efficiency. Institutions acquiring higher rankings received significant increased academic funding from their respective provincial governments than did lower ranked institutions (Clark, 1998; Gauthier, 2004). What was once considered a 'given' is no longer when the Canadian federal government introduced measures of accountability and justification for new research funds.

According to the Organization for Economic Co-operation and Development (OECD), member countries became involved in market-like behaviour by adopting an accounting formula for distributing funds for teaching and research. For example, Australia's higher education system moved further ahead of other western societies in the mid 1980s by focusing its funding policies and strategies for academic research to the creation of "performance economy" in research. Australian government research funding rewarded those individuals

who provided research that achieved government policy goals. These Australian government policy changes provided higher education institutions with incentives, and opportunities to commercialize academic research (Harmon, 2003; Neuman & Guthrie, 2002; Zhao, 2004).

Global Knowledge and Advanced Technology

Advanced communication technology dramatically changed communication systems in most sectors of society, the workplace, science, and entertainment (Gumport & Chun, 1997). The influence of technology as a means of expanding the dissemination of knowledge on a global scale is another major external environmental force on the evolution of traditional higher education institutions (Kelsey, 1998). Technology raises questions regarding the fundamental belief that the higher education institution is the only place for knowledge creation and learning (Gumport & Chun, 1999).

This happened primarily because advanced communication technology challenged the traditional 'static' classroom format of teaching to a highly interactive and collaborative one for students, where the role of the faculty member as expert and student as novice was often reversed, thus challenging many traditional assumptions about teaching (Duderstadt, 2000; Odin, 2004). Technology also challenged the concept of time-based learning, as defined by fixed semesters and credit hours, in face-to-face classroom instruction (Abeles, 2004).

Overall, these extraordinary advances in communication technology have had profound implications for the fundamental roles of teaching, research, and

service in higher education (Duderstadt, 2000). Duderstadt (2000) proposed that the role of faculty would expand from teaching, to become designers of learning experiences that motivate students, manage the learning process, and create highly interactive and collaborative learning environments, within disciplinary contexts.

However, adapting and integrating technologies such as the World Wide Web with existing program delivery approaches has not been a priority for many traditional higher education institutions because of the cost of the technology, the additional resources to support it, and the perceived increase in academic workload (Gumport & Chun, 1999; Hanna, 2003). In addition, some faculty suspicious of new instructor methods may be reluctant to re-examine their traditional academic thinking and practices (Abeles, 2004). Margolis (2004) is adamant that online learning does not develop leadership skills in students, nor allow them to expand their knowledge.

On the other hand, some traditional academic faculty do see how using advanced communication technology has advantages for individuals whose geographic location, work demands, physical or social conditions, personal circumstances, or family and community responsibilities, impede their access to traditional university-level education (Margolis, 2004). While some academics believe that this model of education destroys traditional values of critical inquiry developed by students and academics in face-to-face philosophical debates of learning and research, others believe online learning has enhanced critical thinking skills (Margolis, 2004).

The Changing Public Perception of Traditional Higher Education Institutions

Another external environmental reason for the transformation of traditional higher education is the changing public (comprised of employers, students, and taxpayers) perception of the purpose of higher education's roles and responsibilities. While Duderstadt (2000) concluded that the public believes that higher education should be accessible to every qualified individual who wants a university education, the public also appears to believe that the higher education system "is wasteful, inefficient, and ineffective, and that its leaders are intent only on protecting their prerequisites and privileges" (Duderstadt, 2000, p.61). In addition to institutions not responding to the changes occurring in today's global economy.

Kasworm, Sandmann and Sissel (2000) postulated that the public continues to criticize traditional higher education institutions key focus on the traditional 18-22 year old student, while not adequately addressing the needs of adult learners in their policy, mission, research, and programming. The public is beginning to expect higher education to be a 'life long experience' with programs designed for on-going professional development, instead of the traditional 'preparation for professional entry' four-year university degrees only (Dunne & Rawlins, 2000; Martin, 1998).

As well, it is becoming evident that disciplinary knowledge alone is no longer sufficient for graduates to be competitive in their respective fields; the market economy requires them to have cross-disciplinary knowledge of the field (Kasworm, Sandmann & Sissel, 2000). Keele and Nickman (1999) suggested

that administrators of higher education institutions are too busy defending the accuracy of traditional academic values to listen and respond to, and address currently changing educational needs of the public. For example, Newman, Couturier and Scurry (2004) outlined several conflicting perceptions of the student stakeholder and higher education:

- While institutions state a commitment to teaching, almost all of their time and energy is devoted to research, publishing and, in some disciplines outside consulting;
- While institutions claim to have a need-based financial aid system for students, recruitment is focused on the best and wealthiest students; thus merit-based financial aid programs are increasing at a greater rate than need-based;
- While institutions state increased service to the community, attention is focused more on improving the rankings of the institution in national newsmagazines (i.e. U.S. News, World Report, Maclean's); and
- While independent research is fundamental to the betterment of society, there is growing corporate control of research (researchers paid to conduct specific research for a company) which undercuts the impartiality of research results(Newman, Couturier & Scurry, 2004, p.66)

As a result, public stakeholders are requesting that traditional higher education institutions examine these growing expectation gaps regarding the purpose of higher education (Newman, Couturier & Scurry, 2004).

In summary, traditional institutions of higher education are experiencing a variety of external environmental forces: globalization and the market economy; government accountability; global knowledge and advanced technology; and the changing public perception of the role of traditional higher education institutions. These external environmental forces may be collectively pushing our educational system toward something that resembles a “for profit” organization driven by economic, rather than educational needs (Bok, 2003; Mount & Belanger, 2001).

Entrepreneurial Practices in Traditional Higher Education Institutions

This section explores entrepreneurial practices in traditional institutions and the rise of private for profit academic institutions.

A Historical Perspective of Entrepreneurial Practices

The trend of entrepreneurial higher education practices is not new but its depth of penetration into the academic culture became more obvious in the twentieth century. Since the early 1900s, universities have been engaged in some sort of commercial practice to survive, from selling the right to use their scientific discoveries to industry, to athletic departments selling sweatshirts and ball caps with the university team logo on them (Albach, Berdahl & Gumpert 1999, Bok, 2003). More recently, traditional higher education institutions have begun to develop for-profit educational programs with the profits supporting research or starting new programs (Bok, 2003; Etzkowitz, 2003). A key example

of this strategy are schools of business developing executive programs geared towards working corporate professionals who require a more accessible course delivery format than the traditional on-site only model of program delivery (Bok, 2003). Faculties such as science and medicine have also been involved in similar entrepreneurial innovation in the development of continuing education programs (Bok, 2003).

Entrepreneurial higher education institutions have developed a collection of structures, such as multidisciplinary research centers and institutes to enable them to pursue opportunities for project-focused research funding (Clark, 1998; Duderstadt, 2000). Additionally, an array of external supporting organizations such as educational foundations, non-profit research corporations, and for-profit marketing subsidiaries manage other entrepreneurial activities (Duderstadt, 2000). These “enterprise” universities are traditional academic organizations with business practices mixed in, or a hybrid entity (traditional and entrepreneurial) (Etzkowitz, 2003; Parker, 2002).

These entrepreneurial practices in traditional higher education institution evolved to support the traditional research purpose of building new knowledge because institutions are now responsible for generating a significant portion of its own budget (Etzkowitz, 2003; Slaughter & Rhoades, 2004). Etzkowitz (2003) described the “enterprise” university as a “natural incubator” for innovation because it provides a support structure for students and faculty to develop new intellectual, commercial, and conjoint ventures. Etzkowitz believed that such an organization could function with two potentially adversarial goals co-existing in

the same organization, if its employees have the ability to reinterpret and legitimize contradictory ideas and practices, connecting them to the goals of the organization.

Private for Profit Entrepreneurial Higher Education Institutions

Higher education institutions that embraced the entrepreneurial for-profit approach (as exemplified by the University of Phoenix originating in the United States) demonstrate how education has become “raw material” or a resource commodity for sale (Slaughter & Rhoades, 2004). These private-for-profit institutions aggressively market to specific education and life needs of both traditional students and mature consumers requiring on going professional development (Bok, 2003; Ruch, 2004).

In the United States and Europe, these private for-profit institutions also became formidable competitors to traditional higher education institutions (Newman, Couturier & Scurry, 2004). For example, in Germany, the state encouraged private academic institutions to treat the “student as the customer” and to cater to a specific market niche of students dissatisfied with their perceived lack of service from traditional higher education institutions. This forced state universities to become competitive for students and more responsive to student and public needs.

As a result, traditional higher education institutions that do not compete for students, or a share of the ‘mature consumer market’, are in danger of losing a role as providers of on-going professional development for a ongoing student base (Bok, 2003, Ruch, 2004).

Changes to the Internal Environment of Traditional Higher Education Institutions

This section examines the shift in the internal elements of academic governance, culture, values, and faculty roles in response to the change occurring in higher education organizations.

Academic Governance in Traditional Higher Education Institutions

Traditional higher education institutions historically had a different academic governance structure from other publicly funded institutions because of the unique nature of its mission. Consequently, the academy, rather than government, oversees the activities of teaching and scholarly pursuits. Within the academy, the “shared governance” model involved a collegial decision-making body made up of an elected governing board of trustees whose mandate is to see the vision and mission of the institution, the faculty who represent the teaching and scholarship functions of the university, and the university administration who manage the business of the institution (Duderstadt, 2000). University governing boards are only concerned with overall education policies, and not with the internal academic policies that guide course content and delivery, or anything involving academic competence (Duderstadt, 2000).

Currently, this traditional academic governance model is under attack from the public regarding its inability to respond quickly to the external environmental pressures occurring in the field of education (Duderstadt, 2000). According to Zusman (1999), the traditional participatory decision-making process in the institution is too lengthy for timely decisions. The process of consensus in the

shared governance model became unworkable when those in positions of authority and leadership made the decisions to avoid the political power struggles that ensued between the faculty reluctant to change traditional programs and administration needing to make changes in order to survive (El-Khawas, 2001; Mora, 2001; Ruch, 2004; Stilwell, 2003)).

Bok (2003) proposed that the strengths of the old “shared governance” model is in its educating of faculty members about the new opportunities for the university, and ensuring that administration stays focused on the essential academic values and standards, required for the highest academic integrity.

Changes to the traditional governance model in higher education institutions also occurred in other countries such as Britain and Australia. Gleeson and Shain (1999) outlined how governance became the transfer of powers in higher education “from locally elected to appointed governors, as part of a centrally controlled process of financial and management devolution at the college level” (p.546) at Keele University, United Kingdom. This devolution of academic governance and control from local education authorities and community, to mainly non-elected governors from business, industry, and commerce introduced top down communication, and reduced discourse between faculty concerned about education issues and values, and those senior managers and governors promoting the managerial bottom line. This move by the British government to control various layers of academic bureaucracy was to make educational institutions more flexible and responsive to the changing workforce educational requirements of globalization, and the market economy.

While there are, advocates of this deregulated and market-led governance system, there are also those opposed to the adoption of commercial and business values in higher education.

These current changes in governance opened avenues for faculty members to think about new ways of teaching and learning. Gleeson and Shain (1999) believed that this wider public vision of higher education policy is sensitive to changes occurring in the profession, ensuring that higher education institutions align with the new demands from globalization and the market economy. When entrepreneurial practices increased within the University of Western Sydney-Nepean, Australia, Duke (2001) described how the existing governing body was “little more than an insurance policy and safety net for management, with useful skills for certain Council committees” (p.40). When entrepreneurial practices became necessary for the financial sustainability of the institution, the relationship with external members of the Board of governors and faculty members became more complex, with formerly passive members bringing the business skills, opportunities, and expertise important to the survival of the institution to the table.

In summary, current changes in institutional governance are a direct result of the need of the state to provide subsidies and regulate education. Higher education governance adopted policies and practices of management-dominated decision-making from the corporate world in order to survive in the global educational marketplace (Mok & Lo, 2002).

Organizational Culture in Traditional Higher Education Institutions

According to McShane (2004) organizational culture is “shared assumptions, values, and beliefs that are considered to be the correct way of thinking about and acting on problems, and opportunities facing an organization” (p.456). Culture consists of “the basic assumptions and beliefs shared by the members of an organization, and which are learned responses to the group experience” (Schein, 1985, p.6). All organizations develop a culture through mission and vision statements, which are a reflection of its values and function (Morris & Jones, 1999). A strong culture with which employees can identify with has a positive impact on their work motivation and feelings of belonging that are vital for the organization to function efficiently (Clark, 1998; Daumard, 2001). Daumard (2001, p.69) pointed out that there are numerous similarities in the way that corporations and higher education institutions establish their culture:

- having a legal and social identity, assets, ownership rights and obligations;
- using human capital to produce goods or services that meet a demand;
- making do with scarce resources;
- using sophisticated techniques with regard to management and measuring output and results; and
- having unique work organizations with in-house procedures and hierarchies.

Daumand (2001) also outlined where the specific nature of the culture in a traditional higher education institution differs substantially from a corporate organization. Traditional higher education institutions' unique organizational culture is cultivated by the historical mission of the creation and transmission of knowledge for the public good (Slaughter & Rhoades, 2004). For-profit corporations tie economic objectives to measured financial outcomes and establish a set of common goals that the corporation employees adopt to ensure the meeting of these financial outcomes. Daumand argued that since performance and measurable outcomes in traditional not-for-profit higher education institutions are not part of their historical mandate, there is no "performance culture". He suggested that as institutions become more competitive with both other public institutions and private-for-profit institutions there are a need for faculty and administrators to agree on what the new mission of the university is, and how to measure it.

The adoption of a more corporate view of the 'bottom line' by the traditional institution of higher education affects the academic culture. For example, Rhoades and Slaughter (1997) pointed out that a foundational pillar of the traditional university culture, the tenured track faculty position, is now rare in the United States because of the growing corporate practice to hire increasing numbers of sessional staff on part-time contracts. Over the long term, sessional contracts are less costly than full-time tenured faculty positions.

Cultural clashes occur when traditional institutions of higher education engage in practices, which academic faculty considers "commercializing" the

institution, such as selling the privilege to re-name campus buildings. Traditional faculty members tend to believe that pursuing truth and knowledge is their key role (Mora, 2001; Parker, 2002), and not that of making money for the university. Educational institutions embracing a corporate business model that exemplifies “highly entrepreneurial, customer-focused and revenue seeking enterprises” (Parker, 2002, p.608) were not what these academics signed up for.

Values and Roles in Traditional Higher Education Institutions

Rinne and Koivula (2005) claimed that higher education institutions are caught in the transition between a traditional academic culture and a corporate culture, trying to determine which traditional academic values and roles are worth keeping, and which ones must be let go for the survival of higher education.

Karelis (2004) proposed that a culture clash exists between the present market values and the traditional higher education values of: research and scholarship; learning for learning’s sake; independent social criticism; and helping students develop a meaningful philosophy of life (Deem, 2001; Karelis, 2004; Parker, 2002). While the commercial value of research is publicly supported with today’s market economy society, the development of student’s’ “meaningful philosophy of life” is harder to defend. Margolis (2004) claimed that traditional cultural values such as, “democracy, equality, diversity, social mobility, scientific progress, moral enlightenment, enriched quality of life” (p.35) are necessary to survive in the new market economy. The challenge for higher education institutions may be to maintain these traditional values as necessary for independent thinking, confronting the status quo, and making informed

decisions, as part of surviving in a democratic, global market society (Currie, 2004; Karelis, 2004). Clark (1998) proposed integration between traditional academic values such as critical inquiry, intellectual freedom, and managerial practices as necessary for the future integrity of higher education institutions. Margolis (2004) agreed that this might help higher education institutions to remain viable in a global market economy.

Adoption of more business values and practices such as financial viability, closer community relationships, and customer/consumer responsiveness may be an asset to higher education institutions. According to Ruch (2004), traditional higher education institutions need to understand how the for-profit educational institutions met the needs of a global market to find the right balance between these two sets of values and roles. Furthermore, Karelis (2004) proposed that the combining of market values and educational values, reconcile by engaging academia and the public in a thoughtful discourse about the purpose of higher education in the new market economy, with the potential of an exciting new academic culture emerging.

Summary

This review of the literature suggests that key academic policy changes regarding new governance structures and financial accountability are affecting traditional higher education institutions internationally. It also describes a need for traditional higher education institutions to adopt business values and practices to compete in the global education market economy, and continue to contribute to the educational needs in the wider society (Zhao, 2004).

Specific internal policy development and changes to help higher education institutions to increase entrepreneurial innovations and practices were not apparent in the literature.

Role of Organizational Theory in Higher Education Evolution

This section defines organizational change and explores a typology of organizational change models (evolutionary, teleological, life cycle, dialectical, socio-cognitive, cultural, and reframing) in terms of relevance to organizational change in higher education institutions. Examined in this research study are models of organizational change with the most important factors and processes that shape change and innovation.

Defining Organizational Change

There are many definitions of organizational change, each depending on the models or theories of change within which it is examined (Kezar, 2001b). Each model of change represents a different ideology with assumptions about the nature of people and the organization. There are certain concepts that are common across the various organizational change models, whether or not the models are for understanding planned or unplanned change, and first and second-order change (Kemelgor, Johnson, & Srinivasan, 2000; Kezar, 2001b; Levy, 1986).

Planned change is the process of managing and controlling change in specific ways. Planned change is a result of the organization's administration wanting deliberate improvement in the organization's function and engages either external or internal resources to help with this process (Levy, 1986). The

opposite of this is considered unplanned change which is often unanticipated within the context of the organization and may move the organization either in a direction that is to its advantage or not (Kemelgor, Johnson, & Srinivasan, 2000; Poole, 2004). Evolutionary or spontaneous organizational change is most often associated with models of unplanned change (Levy, 1986).

First-order change is change that only modifies the original organizational structure (Poole, Van de Ven, Dooley & Holmes, 2000), and is also linked to planned change because of its linear and continuous nature, with no fundamental shifts in the core of the organization (Kezar, 2001b; Purser & Petranker, 2005; Robbins & Langton, 2003). Second-order change is a change in the basic organizational assumptions or framework, which represents a fundamentally new way of doing business (Poole, 2000, et al.) and is transformational change (Kezar, 2001b; Poole, 2000 et al.; Seo, Putnam & Bartunek, 2004). Individuals, groups, and departments are involved in the change process, and results in a change to the current paradigm of the organization (Kezar, 2001b; Poole, 2000, et al.).

Typology of Organizational Change Models

The literature on organizational change describes a number of models that explain the how and why organizations change. A brief review of selected literature outlines the major characteristics, assumptions, and criticisms of the seven change models described in the organizational change literature: evolutionary, teleological, life cycle, dialectical, social cognition, cultural, and reframing (see Table 3).

Table 3*Key Characteristics of Seven Organizational Change Models*

Models	Assumptions	Process	Outcome
Evolutionary	External environment	Adaptation-slow, gradual, non-intentional	New structure & processes First-order
Teleological	Leaders; internal environment	Rational, linear, purposeful	New structures & organizing principles First-order
Life Cycle	Leaders guiding natural growth	Natural progression-predictable	New organization identity First-order
Dialectical	Political tensions of values & norms	Negotiation and power	New organizational ideology Second-order
Socio-Cognitive	Cognitive dissonance	Learning, altering paradigm, interconnected, & complex	New frame of mind Second-order
Cultural	Response to change in human environment	Symbolic, non-linear	New culture Second-order
Reframing Approach	Multiple perspectives of change	Complex cognitive thinking	New paradigm Second-order

Adapted from A. Kezar (2001b) Understanding and facilitating organizational change in the 21st century: Recent research and conceptualizations (pp.57-58).

Van de Ven and Poole (1995, 2004) created a comprehensive typology that consisted of four basic process categories for theories of organizational change: life-cycle (regulated change), teleological (intentional change), dialectical (political or conflictual), and evolutionary (competitive). Two of the most prevalent models in the literature describe the process of organizational change were teleological (planned change), and the evolutionary models (adaptive/planned

change). Kezar (2001b) expanded Van de Ven and Poole's typology by including two additional models – social cognitive and cultural approaches to change (unplanned) – that are worth exploring further for this research study. A seventh more complex model included is Bolman and Deal's (1984, 1991) that encompasses the reframing approach of four frames of organizational change: cultural, political, social cognition, and human resource. As explanations of change processes in organizations must often span more than one level of analysis (political, social, and economic), a complex change model that incorporates several elements of other models provides additional lenses from which to examine any unanticipated consequences of organizational change (Lueddeke, 1999; Kezar, 2001b; Poole, & Van de Ven, 2004).

In reviewing the literature, the researcher was unable to locate an educational change model that was appropriate for this study. Two models of change that explored educational change were Ellsworth's (2000) communication change model and Fullan's (2001) mutual-adaptation model of change. Overall, the researcher decided that an organizational change model better would address this study's research questions. In determining what organizational change model was appropriate, she chose the reframing approach (Bolman & Deal, 1984, 1991) because it appears to encompass the key elements of her study, and best describes the key organizational dynamics of change examined within the institutions of higher education.

Evolutionary Model

Evolutionary models of first-order change focus on change as a slow process, gradually shaped by environmental influences. The key assumption of the evolutionary models is that organizational change is dependent on circumstances, situational variables, and the external environment (Kezar, 2001b; Poole, 2004). These models are appropriate to use in order to understand organizations that do not have the ability to plan for and respond to change, and instead manages the change as it occurs to ensure the survival of the organization. In the evolutionary process, change is mostly unplanned, and considered an adaptive or selection-based process (Kezar, 2001b). This organizational adaptation is the “modifications and alterations in the organization or its components in order to adjust to changes in the external environment” (Cameron, 1984, p.123). Successful adaptation requires the organization to become more diversified or specialized. Cameron indicated that most organizations adapt not because of strong leadership or managerial direction, but because they have found a fit between the organization and the newly evolving external environment.

Teleological Model

Teleological model of organizational change are a planned development cycle of collective goal formation, implementation, evaluation, and modification of the organization’s goals, or action plan depending on what is learned by the collective group (Poole, 2004; Poole, Van de Ven, Dooley & Holmes, 2000). This model describes a repetitive process of establishing goals in response to a

perceived problem or opportunity, with internal organizational decisions motivating change rather than the external environment (Kezar & Eckel, 2002). Teleological models emphasize the role of leaders and change agents in the change process that ultimately, does not challenge the existing organizational structure (Kezar, 2001b; Poole & Van de Ven, 2004).

Criticisms of planned change models include the unlikelyhood of a linear framework, whereby change agents start from a set of expectations of the future and develop a plan to meet those expectations (Purser & Petranker, 2005). Another criticism of the model is the lack of clarification of the interrelationship of strategies, for example developing a vision, making a plan, communicating the vision, executing the plan, and then evaluating. The heavy emphasis on the leader to control events around the change process is another weakness of this type of model (Kezar & Eckel, 2002).

Life Cycle Model

The life cycle model portrays the process of planned change (Poole, 2004) as regulated and cyclical following a series of stages: initiation, growth, decline, and termination. Life cycle models are an event sequence of start-up, grow, harvest, terminate, and start-up again producing first-order change (Weick & Quinn, 1999). Organizations are born; they grow and mature, then go through periods of renewal, and eventually decline (Kezar, 2001b). Change occurs as individuals within the organization adapt to its life cycle, and the leader or manager of the organization. Life cycle models are a variation of the evolutionary model that focuses on the developmental theories examining human motivation,

individual and group interaction, retraining, and development central to organizational processes and change (Kezar, 2001b).

Key criticisms of this model are that most of the literature on it is conceptual rather than empirically based, and that the life cycle model is deterministic in nature with its preconceived stages of development, not allowing much flexibility for the organization (Kezar, 2001b; Quinn & Cameron, 1983)

Dialectical Model

Dialectical or political models of change focus on a shift in an established pattern, value, ideal, or norm in an organization that interacts with its newly emerging opposite (Kezar, 2001b). Over time, change occurs through this interaction of imposing forces and typically occurs in short periods of revolutionary change when there is a stalemate between two belief systems. The change processes that moves the organization towards a new perspective when its two beliefs systems clash, are “bargaining, consciousness-raising, persuasion, influence and power, and social movements” (p.41) to move the organization forward towards a new perspective.

Baldrige’s (1971a) original research work, a case study of organizational conflict at a New York University, proposed that complex organizations could be political systems. This case study demonstrated how the university’s social system fragments and divides when there is a top down decision making process that make decisions for the majority, who have not been consulted. Baldrige’s (1975) revised political model acknowledges that internal environmental factors

shape the decision-making process, and that the articulation and mediation of demands should remain a negotiation process (Baldrige, 1975; Pusser, 2003).

The dialectical model presents an explanation of how sometimes unpredictable and irrational political decision-making processes that organizations experience emerge (Baldrige, 1975; Kezar, 2001b; Pusser, 2003). However, its limitations are a lack of consideration of the external environmental factors and processes, and the inability to provide guidance for the leaders of the organization (Kezar, 2001b).

Social Cognition Model

Influenced by a social-constructivist view of organizations, social cognition models examine in depth how learning occurs, the motivation of learning, and how change occur together (Arnold, Feldman, Hunt, 1992; Kezar, 2001b). The social cognition perspective is a single and double-loop learning theory. First-order or single-loop learning is an “error-detection-and-correction” process when the organization takes corrective measures when it detects an error, resulting in no changes to the present policies or current objectives of the organization (Argis & Schon, 1978; Kezar, 2001b). Second-order or double-loop learning is when norms, goals, and structures are reformulated to create innovative solutions that result in changes to the present policies or objectives of the organization (Argis & Schon, 1978; Kezar, 2001b).

In the social cognition model, the reason for change in organizations is cognitive dissonance occurring when individuals’ values and actions clash,

(Kezar, 2001b; Lueddeke, 1999) resulting in a new frame of mind or worldview that brings values and actions into line again (Kezar, 2001b; March, 1981).

Other change concepts incorporate social cognition principles are “paradigm shifting” (Johnson & Macy, 2000; Kuhn, 1996) and “sense making” (Gioia & Thomas, 1996; Weick & Quinn, 1999), which both acknowledge multiple views of organizational reality.

Kezar (2001b) proposed that a major contribution of the social cognition model is its focus on individual learning and the interpersonal construction of meaning. A criticism of the model is the de-emphasis on external environmental forces on change and the over emphasis placed on the leader’s ability to change the identity and reality of the organization.

Cultural Model

According to Shane (2004), organizational culture is “shared assumptions, values, and beliefs that are considered to be the correct way of thinking about, and acting on problems and opportunities facing an organization” (p.456). Culture consists of the basic assumptions and beliefs shared by the members of an organization, and which are learned responses to the group experience (Schein, 1985). Two viewpoints on culture change in organizations exist in the literature. One is that culture is a stable, conservative, and resistant force that is likely to change only through management intervention. The natural stability of the organization’s culture is up against management’s desire for the organization to adapt and change (Hatch, 2004). The other viewpoint of cultural change is interpretive, based on the assumption that reality is socially constructed, and

individuals are guided by metaphors related to important organizational aspects (rituals, symbols and organizational history) that have meaning for them (Kezar, 2001b).

Underlying both viewpoints is the belief that culture is a powerful influence on the members of the organization. Change requires the collaboration of the leadership at all levels of the organization (Austin, Ahearn & English, 1997). Leaders must have a full understanding of the culture of the organization in order to make the right decisions for the changing needs of the various levels of the organization (Tierney, 1988). If the leaders' actions are successful, others in the organization accept the new culture based on these actions. With sufficient support, this new culture becomes part of everyday life, and part of the "taken-for-granted" assumptions of the now changed organization (Hatch, 2004).

The cultural model of change's contribution to the field of organizational change is the focus on the importance of values and beliefs in organizational culture (Kezar, 2001b).

Reframing Approach

Bolman and Deal's (1984, 1991) model of organizational change describes four frames of organizational change – structural, human resource, political, and symbolic – that each represents a different perspective on examining change in an organization. These authors suggest the label *frames* are "windows on the world" [that] "filter out some things while allowing others to pass through easily" (p. 4). They advocate the use of more than one frame when analyzing an organization because organizations are complex systems. Table 4

illustrates the related issues that organizational change causes people in each of the four frames.

Table 4

Organizational Issues of Change in the Four Frames

Structural: Change alters the clarity and stability of roles and relationships, creating confusion and chaos. This requires attention to realigning and renegotiating formal patterns and policies.
Human Resource: Change causes people to feel incompetent, needy and powerless. Developing new skills, creating opportunities for involvement, and providing psychological support are essential.
Political: Change generates conflict and creates winners and losers. Avoiding or smoothing over those issues drives conflict underground. The creation of arenas negotiates issues and manages change effectively.
Symbolic: Change creates loss of meaning and purpose. People form attachments to symbols and symbolic activity. Severed attachments create problems with letting go. Existential wounds require symbolic healing.

Bolman & Deal, (1991), p.377

Structural frame

The structural frame involves division of labour and management hierarchies, allocating responsibilities to the members, and creating rules and policies to coordinate the diverse activities across the organization. Problems occur when the structure does not or cannot fit the situation, and so reorganization is required to remedy it (Bolman & Deal, 1984). Attention to structure through the realignment of formal patterns and policies help to facilitate change in the organization (Kezar, 2001b).

In determining the structural design of the organization, the size of the organization affects the shape and character, and the advance of technological changes affects what members do at work. Problems appear with the formal structure if the corresponding changes do not occur when downsizing or growth of the organization occurs and consequently, alters the relationships between individuals and groups. Different environments also create different structural issues. Therefore, the effectiveness of an organization is contingent on how well its structure matches, or can deal with the demands of the environment.

Human resource frame

The human resource frame emphasizes the need to tailor the organization to the people who work in it. Employees have needs and feelings, along with skills and limitations. When needs of the members of the organization are not met, problems occur (Bolman & Deal, 1991). Employees feel incompetent, needy or powerless because of change in the organization (Kezar, 2001b). The human resource perspective concentrates on management building organizations that produce harmony between the needs of the individual and the needs of the organization.

Political frame

Organizational members viewed through a political frame exist in a series of conflict zones, where power and influence are constantly affecting the allocation of scarce resources among their members and affiliated groups. Coalitions form around specific interests and change as issues come, and go. Power may be unevenly distributed or broadly dispersed so that it is difficult to

effect change (Bolman & Deal, 1991). Coalition building is one of the most effective strategies within the human resource frame for creating change (such as informal groups and committees) (Goia & Thomas, 1996).

The political frame suggests that the goals, structure, and policies of the organization are the result of negotiations among the members of the coalitions. Baldrige's (1971a) political model supports this concept, suggesting that organizational decision-making emerges from the activities of institutional sub-groups. Conflict challenges the status quo and stimulates interest so that new ideas and innovations occur (Bolman & Deal, 1991).

Symbolic frame

The fourth symbolic frame sees organizations as "held together more by shared values and culture than by goals and policies" (Bolman & Deal, 1991, p.6). Rituals, ceremonies, stories, heroes, and myths rather than by rules, policies, and managerial authority drive organizations more. Change results in a loss of meaning and purpose when members of the organization can no longer see the connection to the symbols. Bergquist (1992) believed acceptance of organizational change is a function of an attitude change in the organization's members search for personal meaning and connection to the organization's symbols, rituals, and stories.

The symbolic frame sees the functioning of the organization as complex and constantly changing, and the change process as fluid and non-linear. The culture of the organization develops distinctive beliefs and patterns over time.

Reflected in the myths, stories, rituals, ceremonies, and other symbolic forms are patterns and assumptions (Bolman & Deal, 1991).

Palmer and Dunford (1996) confirmed that when using the reframing approach it involves using multiple perspectives to generate more interpretations from which to, analyze change, and determine solutions. Thus, reframing recognizes the complex nature of higher education institutions. Palmer and Dunford (1996) cautioned that complex cognitive thinking or the ability to reframe and interpret using multiple dimensions, is not straightforward, as dominant frames are entrenched in organizational practices, thus making it difficult for the change agent to step outside of them to see the organization in a new way. Not only is it important to learn how to view organizational change from multiple perspectives, but it is also equally important for individuals to “unlearn” the existing dominant frame in order to do so.

Summary

Each of the seven models of change described in this section offers valuable information for understanding change in higher education institutions. From an evolutionary perspective, how the external environment affects the organization's adjustment to these changes is necessary for the survival of the organization. Teleological change focuses on a linear, purposeful process of internal environmental change driven by strong administrative leadership in a set of identified strategies (Kezar & Eckel, 2002). The life cycle change described a rational and linear progression of life stages of the organization, where change is predictable and first-order. Dialectical change addresses the interaction between

different sets of values and norms within the organization, with change occurring through negotiation and power in a political decision-making process. Socio-cognitive change involves resolving the cognitive dissonance of values and actions of individuals in the organization that results in a shift in the assumptions of the organization. Cultural change focuses on how change in the organization's culture is a result in changes in how its members view the meaning, purpose, and symbols of the organization. The reframing approach is a complex change model that incorporates aspects of these previous six models to provide a multiple perspective way of examining change in organizations.

Conclusion

The higher education institution is one of the few institutions that have preserved its basic traditional characteristics and status in modern society (Fuller, 2005). This literature review provided an overview of how traditional higher education institutions worldwide are experiencing a number of complex and intersecting forces that together appear to be moving them toward a more entrepreneurial set of operating assumptions. Globalization and the market economy forces, including public accountability issues, growth of global knowledge and advance technology, and shrinking ideological support from public stakeholders are currently acting to change higher education institutions world-wide. Together these forces are triggering major internal environmental changes to academic governance, culture, values, roles, and policy resulting in a paradigm shift for the traditional higher education institutions.

This chapter has examined seven major organizational change models, in order to provide a context from industry within which to explore organizational change in higher education institutions. Multiple perspectives are crucial in interpreting and understanding the current evolution of higher education, within a complex and ever-changing global context.

CHAPTER THREE: RESEARCH DESIGN AND METHODOLOGY

The purpose of this study is to explore the impact of entrepreneurial practices, and policies in one Western Canadian traditional higher education university. A case study design examined two specific graduate programs (Masters and Doctoral) within the Graduate Division of Educational Research (GDER), Faculty of Education at the University of Calgary that met the criteria of an entrepreneurial innovation. In-depth, 16 interviews with central administrators, senior administrators and faculty members provided the bulk of data collected.

This chapter describes the methodology used in this case study research. It reviews the research approach, the perspective of the researcher, the research goal, and interview questions, and format. Also included in this chapter is a description of the selection process of the participants, data collection and analysis procedures, and ethical considerations.

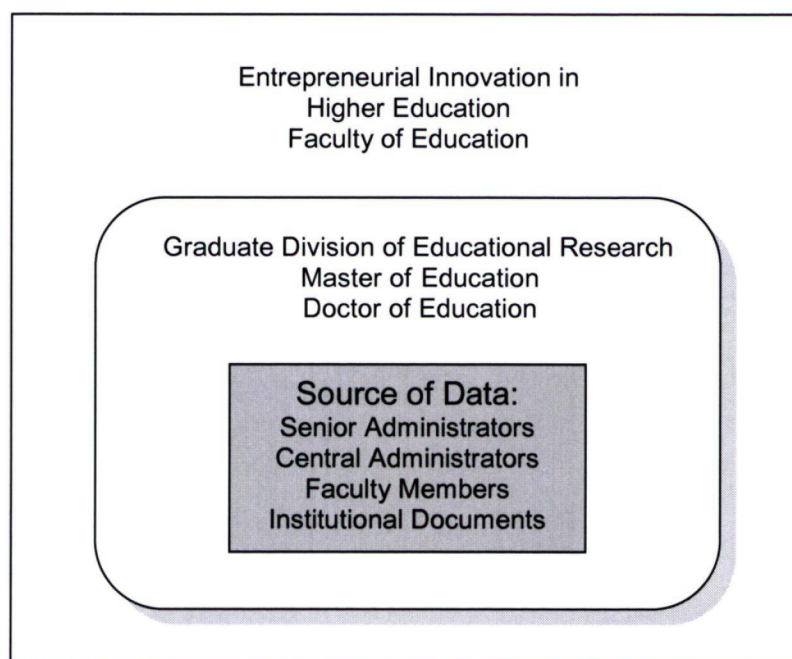
Methodology

The methodology is a qualitative case study approach (Merriam, 1998). Case studies, as Hatch (2002) described, investigates a contextualized and current (as opposed to historical) phenomenon within specified boundaries. In order to advance the understanding of the phenomenon, the case study context scrutinizes and examines, and provides insights into the issue (Stake, 1994) Yin (1994) described a case study as an intense focus on a single phenomenon within its real-life context. Case studies can fit into both the constructivist and post-positivist research assumptions, as neither limits the level of researcher involvement and participation in the process (Hatch, 2002). Case studies can

have quantitative, as well as qualitative data, as part of the same case study (Yin, 1994). This research study focuses on qualitative data with charts and tables used to describe this data.

This case study of an entrepreneurial innovation at the University of Calgary involves three groups of participants (central and senior administrators and faculty members), as well as two programs (Masters and doctoral programs). Figure 2 illustrates this case study.

Figure 2: “Exploring the impact of entrepreneurial practices in higher education: A case study”.



The phenomenon “entrepreneurial innovation” is the two graduate programs in the Graduate Division of Educational Research (GDER), Faculty of Education (Doctor of Education, and Masters of Education). The programs are outside tuition policy (OTP) status, whereby tuition fees come directly back to the faculty’s budget, less 15% for the University of Calgary’s overhead costs, and are

a distributed learning model, which defines an entrepreneurial innovation in this study.

In order to contextualize this study, the researcher provides a brief overview of the Graduate Division of Educational Research (GDER), Faculty of Education at the University of Calgary. In 1994, the Graduate Division of Educational Research emerged with the amalgamation of three former departments: Curriculum and Instruction, Educational Policy and Administration, and Teacher Education and Supervision. The focus of the Graduate Division is to offer graduate programs in a variety of specializations to students across Canada and internationally (Webber, 1996). At the commencement of this study the specializations are:

- Community Rehabilitation and Disability Studies (CRDS)
- Curriculum, Teaching, and Learning with a sub-specialization
Gifted Education
- Educational Contexts
- Educational Leadership
- Educational Technology
- Higher Education Administration
- Interpretive Studies in Education
- Second Language Teaching
- Teaching English as a Second Language
- Workplace and Adult Learning

These graduate programs are delivered on campus and through a distributed learning format. Currently, the specialization of Interpretive Studies is not a distributed learning program. GDER's cost-recovery (distributed learning) graduate programs did expand due to ongoing cuts to the faculty budget. GDER is a leader in distance education, offers post-degree continuous learning programs, and the distributed learning Doctor of Education is the only doctoral program of its kind in Canada (Webber, 2006).

The average number of graduate students in program is 950 and the number of full-time faculty is 65 out of 100 faculty members in the Faculty of Education. The degrees offered are a graduate certificate, graduate diploma, Masters of Education (MEd), Masters of Arts (MA), Masters of Science (MSc), Doctor of Education (EdD), and Doctor of Philosophy (PhD) (Webber, 2006).

Another important aspect of case study research is the central role of theory. Yin (2003b) proposed that theory assists the researcher to select the case'(s) to be studied, specifies what is to be explored in exploratory case studies, defines appropriate description for descriptive case studies, stipulates rival theories for explanatory case studies, and generalizes results to other cases. Langenbach, Vaugh and Aagard (1994) described the role of theory as the establishment of relationships between the constructs that explains the phenomenon (cited in Mertens, 1998). Reviewed is a full range of organizational change models and theories to meet this methodological requirement. These change models are drawn from the literature and include evolutionary, teleological, life cycle, dialectic, socio-cognition, and cultural. Advocated is a

combination, conceptual framework utilizing Bolman and Deal's (1991, 1997) reframing approach to address the complex change issues in higher education organizations.

Research Paradigm

The research design has a constructivist epistemology and takes an interpretive theoretical perspective. "Constructivists think of their participants as co-constructors of knowledge generated by their studies" (Hatch, 2002, p.49), and are often part of a collaborative partnership with the research process itself. The research participants were encouraged to contribute to the study's construction of meaning, by suggesting other participants for the study, and assist the researcher to frame the interview questions, as well as revise data collection and analysis procedures. This allowed the research to unfold and be emergent rather than pre-figured (Hatch, 2002; Creswell, 2003). The methodological intent was to develop theory, based on documenting and analyzing the experienced reality of the participants (Lui & Dubinsky, 2000).

Perspective of the Researcher

In qualitative research, the researcher can be the primary source for collecting the data and analyzing it. As a result, the researcher is required to identify his or her biases, assumptions, and personal values to determine how these affect the data and interpretations of the study (Mertens, 1998; Creswell, 2003). In this study, the researcher's holds a full-time, tenured faculty position at the University of Calgary, and coordinates an OTP distributed learning graduate Master's in Disability and Community Studies program in the Department of

Community Health Sciences, Faculty of Medicine. This program is an entrepreneurial innovation because the tuition fees come directly back to the Community Rehabilitation and Disability Studies program (CRDS) budget, less 15 % for university overhead costs, and is a distributed learning format. The researcher is also a Doctoral student in the Higher Education Administration doctoral program in the Graduate Division of Education and Research, which is one of the two programs that form one of the data sources for this study.

The researcher acknowledges that her work history in the organization and association with some of the individuals interviewed may have resulted in a potential personal bias in the data collection, analysis, and interpretation of the research. The researcher's personal experiences have shaped the argument that a paradigm shift is occurring in traditional higher education institutions. In response, the researcher recognizes that it is critical to declare her role in the organization, prior relationships with the participants, and status as a student in one of the programs under study. The researcher believes her rich, lived experience within these three domains give additional insights to the data analysis, as well as challenges her prior biases about the research questions in this study.

A qualitative researcher does not pretend to be objective, but intentionally becomes part of the world which he or she studies (Hatch, 2002). Qualitative researchers concentrate on being reflexive or keeping "track of one's influence on a setting, to bracket one's biases and to monitor one's emotional responses" (Hatch, 2002, p.10), which allows him or her to become closely involved to

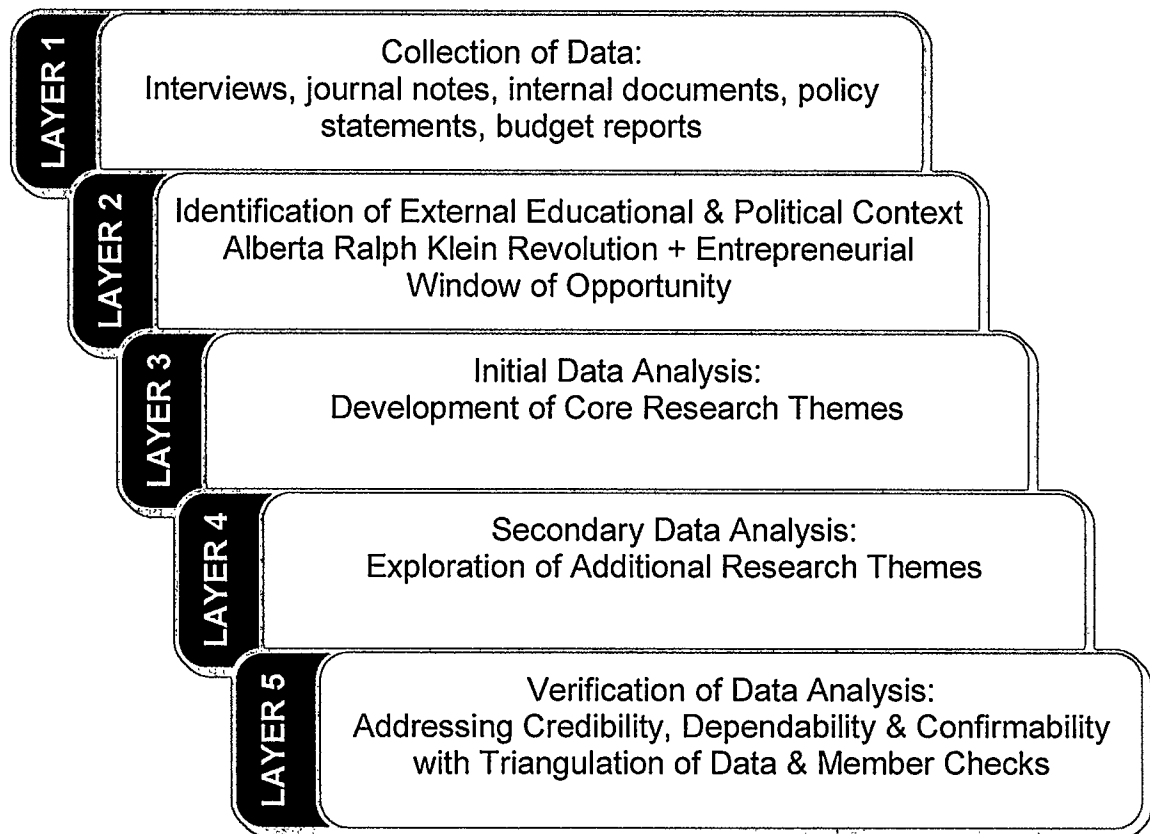
understand the motives and assumptions of the research participants. The following exemplifies the researcher's assumptions of this research context.

Research Assumptions

1. Traditional higher education, in order to remain relevant and to continue to evolve in the global economy of today, adopted appropriate entrepreneurial policies and practices.
2. Traditional higher education institutions' positive attributes, such as academic values of critical inquiry and scholarship, contributes to the fundamental definition of higher education in this time of evolution.
3. Traditional higher education is at a critical point in its evolution. In order to be successful in today's global educational marketplace, adopting a new way of doing business that incorporates both traditional and entrepreneurial higher education practices is required.

In order to ensure that these assumptions and biases did not influence the research process, the researcher employed a systematic, methodological process of cycling through the data and verification of data procedures that included triangulation of data and member checks. Figure 3 illustrates this process.

Figure 3: Framework of data analysis



By cycling through the five layers, the researcher enhanced the objectivity of the data analysis process.

Statement of the Research Goal

The purpose of this case study is to provide a rich description of the impact of entrepreneurial innovations at the University of Calgary. Specifically, the case study examines two graduate programs (MEd and EdD) within the Graduate Division of Educational Research at the University of Calgary that met the criteria for an entrepreneurial innovation. An entrepreneurial innovation is a distributed learning program using non-traditional procedures and practices for delivering the program and has outside tuition policy status (OTP). With OTP status, tuition fees for these programs come directly back to the faculty's budget,

less 15 % the University of Calgary financial services levies for overhead costs. Allocation of revenue generated from these programs is at the discretion of the faculty's administration.

Research Questions

The overall research question was "What are the impacts of entrepreneurial practices and innovations on a traditional higher education institution as expressed by the research participants?" Specific, sub-questions dealt with the impacts that these entrepreneurial practices and innovations had on the following aspects of the institution:

- roles and responsibilities (training, skills and characteristics) of academics;
- institutional rules and policies regarding entrepreneurial innovations;
- institutional culture and values; and
- purpose and meaning of higher education

In Appendix D are the guiding questions for the semi-structured interviews with the participants.

Selection of the Participants

In case study research, two levels of sampling occur, at the case level and then within the case itself (Creswell, 2003; Merriam, 1998; Yin, 2003). At the case level are two specific graduate programs (see Table 1, p.6), within the Graduate Division of Educational Research, at the University of Calgary: the Masters of Education and the Doctor of Education graduate OTP programs. These two graduate programs met the two key sampling criteria for an

entrepreneurial innovation: fee structure (OTP), and the non-traditional practice of delivering the program. The University of Calgary is the institution selected because of the entrepreneurial nature of the study: the Doctor of Education program is the only thesis based, revenue generating, distributed learning doctoral program in Canada, and secondly, because of the accessibility for the researcher.

The 16 participants are either directly (9 faculty members and 4 senior administrators) or indirectly (3 central administrators) involved with the two identified graduate programs. Faculty members chosen for the study served or are currently on the Graduate Division of Education Executive (GDER) committee, and are in an academic specialization coordinator role or a program officer role. Due to confidentiality issues, the specific specializations each faculty member represented are not identified and one specialization area was not represented in this study. Selected faculty members from the Faculty of Education worked full time in the identified programs for a minimum of two years, either teaching, coordinating the program, or a combination of both. Table 5 outlines the breakdown of the faculty member's academic status with the university: 5 full professorships, 2 associate professorships, and one assistant professorship. All faculty member participants in this study are tenured. The senior administrators consisted of individuals from the Faculty of Education and the Faculty of Graduate Studies. Some of the participants were involved in the initial creation, current implementation, and ongoing evaluation of the program. The central administrators included in this study are involved in overseeing the

financial and administrative operations of the university. The program officer oversees the support staff, and financial aspects of these programs. This position is included in the study because it supported the research design of an entrepreneurial environment. During the selection process, three university members (one senior administrator, two faculty members) approached chose to decline the invitation to be involved in the study. The researcher surmises that these university members did not feel their confidentiality was assured in the study. As this study focused on the administration of the programs, students were not included as a participant group. Table 5 illustrates the participant sample for this study.

Table 5

Breakdown of Participant Sample Group.

Participant Sample Group			
Central Administrators	Senior Administrators	Faculty Members	Program Officer
n = 3	n = 4	N = 8	n = 1
		Tenured – 8 Professor – 5 Associate Professor - 2 Assistant Professor -1	

Potential participants received an introductory letter outlining the parameters of the research study, and a copy of the consent form (see Appendices B and C). Next, a follow up email determined their participation in the study, answered any questions, and established an interview date. Participants were advised of their voluntary participation, informed that they could withdraw at any time without penalty, and consent forms signed.

Data Collection Procedures

Multiple data collection methods provide a stronger substantiation of the data analysis (Creswell, 2003; Yin, 2003a). First, semi-structured interviews with open-ended questions allowed the participants to explore their perceptions about the policy and practices of these programs (Creswell, 2003). The semi-structured process allowed the researcher to use some prepared questions, and develop some on-the-spot questions based on ideas and perceptions expressed by the participants during the interview (Merriam, 1998).

These semi-structured interviews were audio taped and transcribed by the researcher. All interviews were conducted face-to-face and with the exception of two (conducted in the researcher's office) in the participants' office. Each interview lasted approximately one hour. One interview did require note taking due to the malfunction of the audio recorder. A field journal captured thoughts and ideas presented by the participants during the interviews and were a third data source.

The second data source was publicly available organizational documents collected by the researcher (Merriam, 1998). The public documents collected and examined for this study included:

- Self-appraisal report, GDER (Webber, 2006);
- *Academic Views*, The Faculty Association Newsletter;
- Minutes from the Council of the Faculty of Graduate Studies;
- An interim report from the Revenue Generation Group (RGG);

- Final report from the New Revenue Generation Task Force (NRGTF)
- Budget (2007 - 2008) and Four-Year Business Plan, University of Calgary and;
- Email announcement reports to the University community, President Dr. Harvey Weingarten, University of Calgary.

Data Analysis Procedures

In a case study approach, data collection and analysis is an interactive activity consisting of continual reflection of the data (Creswell, 2003), in order to reach an understanding within a complex context. It is an interactive process “between researcher and participants, the triangulation of data, the interpretation of perceptions and rich, thick description” (Merriam, 1998, p.152). Case study research involves a detailed description of the issues, followed by analysis of the data for themes.

The researcher organized and prepared the primary interview data from the transcriptions for a hand analysis. The coding process involved a hand analysis of qualitative data, where the researcher reviewed all the data multiple times, sorted the data, marked it by hand for common concepts, and divided it into categories while reflecting on what the data might be suggesting (Creswell, 2008). Coding, as defined by Merriam (1998) “is nothing more than assigning some sort of short-hand designation to various aspects of your data so that you can easily retrieve specific pieces of the data” (p.164). These codes then move the analysis beyond basic description toward concepts indicated by the data

(Merriam, 1998). A multi-layer data analysis displayed in Figure 3 (p.64), enabled the researcher to organize the themes and codes from basic to more sophisticated themes as she worked through the various layers of analysis (Creswell, 2003).

Verification of Interpretation

Trustworthiness in qualitative research is confidence that the inquiry's findings are "worth paying attention to" (Lincoln & Guba, 1985, p.290). Lincoln and Guba (1985) propose four criteria for judging the trustworthiness of qualitative research: credibility, transferability, dependability, and confirmability.

Credibility

Credibility is an evaluation of whether or not the research findings represent a "credible" conceptual interpretation of the data drawn from the participants' original data (Lincoln & Guba, 1985, p.296). Credibility criteria is established when the results of qualitative research are credible or believable from the perspective of the participant in the research (Hoepfl, 1997). It depends on the richness of the data gathered and on the analytical abilities of the researcher (Hoepfl, 1997). A method of improving credibility is triangulation of the data. Triangulation is collecting and checking information from a variety of sources and/or procedures to establish consistency of evidence across all sources of data (Mertens, 1998). The researcher triangulated different data sources that included 16 interview transcriptions, reviewing field journal notes, and organizational documents to establish credibility. In addition, the researcher conducted member checks by contacting selected participants in each of the three participant groups

by telephone to determine the accuracy of the qualitative findings. These member checks occurred with the data findings that were discrepant to what the literature supported. Furthermore, the multi-layer data analysis allowed the researcher to continually self reflect on her biases and key assumptions to increase an open and honest analysis of the data.

Transferability

Transferability refers to the degree to which the results of qualitative research are transferable to other contexts or settings (Hoepfl, 1997; Lincoln & Guba, 1985). Transferability is primarily the responsibility of the person who wishes to “transfer” the results to a different context. To enhance transferability in a qualitative study the researcher does a thorough job of describing the research context and the assumptions that are central to the research so that the reader can determine whether findings are applicable to new situations (Golafshani, 2003). Evidence of a multi-method procedure in the design and/or analysis of the qualitative study improve the criteria of transferability (Hoepfl, 1997). A systematic multi-layered methodological process as illustrated in Figure 3 (p.64) increased the transferability in this study.

Dependability and Confirmability

Dependability is an assessment of the quality of the integrated processes of data collection, data analysis, and theory generation (Lincoln & Guba, 1985), in order to account for the changing context in which the research occurs. This study describes the changes that occur in the setting and how these changes affected the study. Lincoln and Guba advise that accurate and adequate

documentation of changes in the phenomena increase the criteria of dependability in the study.

Confirmability refers to the degree to which the results are confirmed or corroborated by others (Lincoln & Guba, 1985). To enhance confirmability, the researcher documented all the data collection and analysis procedures, and did a continual checking and re-checking of the data throughout the study. Most importantly, the researcher provides a smooth logical progression in the research report from the research goal, data, findings, and conclusions, in order to establish a clear understanding of how she arrived at her findings (Hoepfl, 1997).

Ethics

Ethical issues in social research primarily address the preservation of confidentiality and the privacy of the people involved (Kelly, 1998). In qualitative studies, ethical dilemmas may revolve around the collection of the data and the dissemination of the findings (Merriam, 1998). This case study met the ethics review standards set out by the Conjoint Faculties Research Ethics Board at the University of Calgary (see Appendix A).

To maximize the confidentiality of the small number of participants selected in a specific Faculty the removal of any identifying factors not relevant to the study occurred. The participants in this research assumed no risks beyond those normally experienced in their work place.

Summary

Chapter 3 describes the methodology used in this research study. Data collection and data analysis, how trustworthiness, transferability, dependability, and confirmability were achieved is also described

CHAPTER FOUR: RESEARCH RESULTS

This chapter describes the results of the data analysis through the multi-layer methodological process outlined in Chapter 3 (Figure 3, p.64). The researcher illustrates the emergent themes through descriptive narrative summaries, direct quotes, tables, and figures.

Layer 1: Collection of Data

Layer 1 involved the researcher collecting three kinds of data: interview data, journal notes, faculty internal documents (e.g. Self-appraisal report, GDER,), and university documents (e.g. RGG report, NRGTF report) for analysis.

Layer 2: Identification of External Educational and Political Context

Layer 2 involved the linkage of these internal data sources to the external educational and political context, primarily by examining the interview transcriptions, which revealed two significant eras in higher education: the *Alberta Klein¹ Revolution* era and the *Entrepreneurial Window of Opportunity* era. The researcher noted that more than 70% of the participants were employees of the University of Calgary during the pivotal years (1994 -1997) when substantial changes occurred in the funding of Alberta's higher education system, subsequently experiencing at least one of these distinct eras in higher education during this time. Other data reviewed, (e-mail announcements from the President, University of Calgary, and reports from the New Revenue Generation Task Force (NRGTF, 2000), and Revenue Generation Group (RGG, 2003),

¹ Ralph Klein, Premier of Alberta (1992 – 2006)

confirmed the existence of these two eras, and their impact on participant's perceptions related to entrepreneurial innovation.

The Alberta Klein Revolution Era (1994 – 1997)

The importance of the *Alberta Klein Revolution* era, which occurred under the leadership of Premier Ralph Klein, was the introduction of a series of new tuition policies established for higher education. During the Klein administration, higher education institutions experienced a 21% reduction to institutional base grants over this three-year period (Barnetson, 1999). These new governmental tuition policy changes acted as catalysts for change. The following interview excerpts represent specific participant's perceptions of the Klein revolution, and its impact on higher education:

Central Administrator:

Coming here in '89 we were headed into a downward spiral and ended up in the '91, '92 Klein revolution of slashes, cutbacks 21% reduction to this university in a space of 21 months. It was doom and gloom time, early retirements, hundreds of people out the door, it was complete wake up call to the way we did business.

Senior Administrator:

We had to face a 21% budget cut. Deans, they all had to take a 5% budget cut to their salary. Our faculty was cut back from something like 240 to 80. We were stripped of our support programs. The government had enforced these budget cuts on the University; they had taken out maybe \$300 million dollars, maybe ½ a billion from the system.

Faculty Members

We had been hit with a 21% cut – just before access [funding]. The government clawed back all that money. They [government] were cutting our grants by enormous amounts of money – that is an unprecedented amount in Canada to have your grants cut by 21%.

These comments reveal a higher education institution, characteristically slow and unyielding, struggling to transform its academic policies and practices to meet these changes.

To understand the *Alberta Klein Revolution* era, one needs to grasp what was happening in Alberta's postsecondary environment during the Klein administration. During Premier Klein's administration, a series of new tuition policies became a catalyst, or an external force, for change in higher education institutions. A 21% reduction to institutional operating base grants over a three-year period caused higher education administrators' to re-evaluate their traditional ways of doing financial business. At the same time, the Alberta provincial government imposed a performance based funding mechanism that forced higher education institutions to adopt a market model of business.

Performance based funding meant that higher education institutions received funding based on how it ranked with other academic institutions in Alberta (Clark, 1998; Gauthier, 2004). The performance indicators (ACED, 1996) were *responsiveness* (employment and program satisfaction roles of graduates), *accessibility* (institutions' ability to maintain/improve student enrollment levels), *affordability* (institutions ability to minimize administrative costs and generate revenue), and *research excellence* (faculty privately sponsored research as a percentage of the operating budget of the University). At the same time, students became consumers of education, as education became a commodity purchased by the individual, rather than a right funded by society (Barnetson, 1999). The accountability performance indicators ensured that the student/consumers now

demanded that higher education deliver what it promises (Alexander, 2001; Berdahl, & McConnell, 1999; Lui & Dubinski, 2000).

When the Alberta government instituted a performance-based funding mechanism, it in effect imposed a market model on the postsecondary system (Barnetson, 1997). The result was that education became valued only in economic terms and students wanted programs linked to employment opportunities. Higher education institutions responded by promoting a corporate model of management based on business principals to conduct the business of academia.

All three participant groups in this study (central administrators, senior administrators, and faculty members), voiced mixed emotions and thoughts about these changes in the academic environment, with the predominant reaction of “uncertainty about what would happen next”. The *Alberta Klein Revolution* era appears to have precipitated the changes that led to the next era in higher education

The Entrepreneurial Window of Opportunity Era (1998 – present)

Characterized by faculty administration exploring, developing, and implementing entrepreneurial academic innovations, the *Entrepreneurial Window of Opportunity era* broadened student access to programs, increased revenue, and re-allocated resources. The following interview excerpts represent the beginning this era:

Faculty Members

Because of the impact that 21% had, everyone was running scared so the usual reluctance to new ideas was really soften by then. We would never

have gotten the shifts in terms of the Registrar – the way we dealt with distance students.

...profit was actually a dirty word; it was still very much an academic institutional mentality. It [central administration] realized it had to do something other than cut, so it put out a call for innovative ways for programs that could sustain. Profit was still a dirty word but [the word] sustainability was okay.

Senior Administrator

For me it was an exciting opportunity [21% government cutbacks]. I didn't see it as a problem at all, I saw it as an opportunity, because when people are in a crisis... there is a tremendous opportunity... to change the faculty. This faculty changed literally from top to bottom

This *Entrepreneurial Window of Opportunity* era epitomized the excitement, creativeness, and risk-taking experienced by those academic faculty members who saw the opportunities. However, it was also full of conflict and anguish for those faculty members who did not. The following interview excerpts represent the different perceptions of participants during this era.

Central Administrator

The professional faculties have become the innovators, who are in the forefront of change with inquiry-based learning...take the risks and are not afraid to think creatively. These programs have produced the critical thinkers, not just skilled workers.

The traditional faculties such as Arts and Science have remained status-quo. Why are there backlashes, and the resistance of these academic units to change, to keep up with the others? There is "no consequence to failing" in the academic world so why not take the risk to change.

Senior Administrator

The atmosphere was ripe for innovation to grow. One opportunity led to another. There was a sense of being in the right place at the right time if you allowed your mind to run with the possibilities. Of course, there was rebellion and conflict by those who could not let go of the past and those who were experiencing paradigm paralysis, but the community was demanding change, their educational needs not met.

Faculty Member

The community identified needs such as accessibility of programs. We were able to reconfigure ourselves in terms of innovators and in that way; we responded to people's needs, we were able to grow.

We were the epitome of small business that capitalized on customized service by accessing outside resources.

The existence of the *Entrepreneurial Window of Opportunity* era was evident in the adoption of business language into academic culture. Institutions have been engaged in commercial marketing from selling the right to use their scientific discoveries to industry, to athletic departments selling sweatshirts for decades (Albach, Berdah, & Guport, 1999; Bok, 2003; Etzkowitz, 2003). What now has changed is how some traditional mainstream faculties (such as education and social work) began to develop for-profit, cost-recovery educational programs with profits supporting research or new program development. Consequently, business language, principles of business, and entrepreneurialism permeated the academic culture.

In order to assist in analyzing and organizing the data from multiple sources in Layer 2, the researcher provides a series of tables that illustrates what emerged from the data analysis. Table 6 (p.81) illustrates the universal adoption of business language and principles by all participants in this study. Table 7 (p. 83) identifies the top six business related terms for the three-participant groups' and Table 8 (p.84) highlights participant's perceptions of innovations being either "opportunities" or "threats".

Table 6 summarizes new business-like language and practices found in all three-participant groups (central administrators, senior administrators and faculty members), as well as the literature reviewed. These specific business related words were not previously associated with traditional higher education institutions. As a central administrator advised, “The use of business language, terminology as you know in our culture used to be very unaccepted”.

Table 6*Entrepreneurial Window of Opportunity Era: Adoption of Business Language*

	Central Admin Word Count	Senior Admin Word Count	Faculty Members Word Count	Literature Support
Business (best practices, model, decisions)	6	14	38	Neuman & Guthrie, 2002 Karelis, 2004 Smith, 2004
Budget (cuts, process)	1	16	20	Rinne & Koivula, 2005
Capital	1	3	6	Mount & Belanger, 2001
Competition	4	2	5	Deem, 2001
Cost recovery	2	8	3	Slaughter & Leslie, 1997
Commodity			6	Engle, 1984
Corporate		1	8	Newman, Couturier & Scurry, 2004
Entrepreneurial (ism)	16	6	42	Etzkowitz, 2003
Economic (investment)	4		1	Berdahl & McConnell, 1999
Finances (planning, issues)	1	9	13	Alexander, 2001 Harman, 2003
Market (share, demand)	10	3	15	Zao, 2004
Money/Revenue	25	75	134	Clark, 1998
Performance (key-measure-indicators)			6	El-Khawas & Massey, 1996
Profit (sharing)	2	6	13	Parker, 2002
Product (quality, selling)		2	4	Gauthier, 2004
Risk (taking, takers)	2	2	7	Duderstadt, 2000
Resources (allocation)	2	6	19	Bok, 2003
Strategic (planning-transformation, directions)		1	6	Glassmore, Moore, Rossy et al, 2003
Sustainability (sustain)	1	6	13	Slaughter & Rhoades, 2004
				Ruch, 2004
				El-Khawas, 2001

The significance of the results found in Table 6 is the faculty members' adoption of business language. Specific words such as money and revenue, entrepreneurial, business (practices), budget, resources, and sustainability all speak to the potential shift in a different skill and mindset required of faculty members. The word counts for central and senior administrators are consistent with the number of participants interviewed in each group and are considered relevant for their responsibilities of the position.

A further breakdown of the business terminology in Table 7 identifies the top six business related terms for the three-participant groups' as money/revenue, entrepreneurial, market, business, economic competition, budget, and cost-recovery. Each participant group shared the business terms of "money/revenue", "business", and "entrepreneurial". The adoption of these specific business terms across each of three participant groups demonstrates a connection that now exists between business and mainstream academia. Language once considered only relevant to the management faculties, now appears to crossover to other faculties such as education. It may mean that the institution of higher education has become an entrepreneurial "business" venture, in addition to an institution of knowledge pursuit.

Table 7*Top 5 Business Related Words by Participant Groups*

	Central Admin	Word Count	Senior Admin	Word Count	Faculty Members	Word Count
1	Money/ Revenue	25	Money/ Revenue	75	Money/ Revenue	134
2	Entrepreneurial	16	Budget	16	Entrepreneurial	42
3	Market	10	Business	14	Business	38
4	Business	6	Finances	9	Budget	20
5	Economic – competition	4	Cost Recovery	8	Resources	19
6	Cost/Recovery/ Profit	2	Entrepreneurial	6	Market	15

There appears to be a strong overall increase in business language used as one moves across Table 7 from administrators to faculty members. This is counter-intuitive, given that academics' role and functions traditionally do not include business activities. It does suggest that more is going on with role of the faculty member and their involvement with entrepreneurial innovations that warrants further investigation.

Table 8 highlights participant's perceptions of innovations being either "opportunities" or "threats". In the "opportunities" category, all participant groups' statements reflect a positive attitude of excitement and risk-taking with other like-minded individuals who create innovative programs for the faculty. In the "threats" category, all participant groups' statements reflect an attitude of fear, distrust, and suspicion toward entrepreneurial innovative programs due to consequent negative repercussions to the traditional academic environment. Overall, there were somewhat fewer "threats" perceived than there were "opportunities" across all participants groups.

Table 8

Opportunities and Threats: Key Statements by Participants

Opportunities	Threats
<p>Central Administrators (n = 1)</p> <ul style="list-style-type: none"> • These programs [professional faculties] have produced the critical thinkers, not just skilled workers • The professional faculties have become the innovators • The professional faculties take the risks and are not afraid to think creatively <p>Total = 3 statements</p>	<p>Central Administrators (n = 1)</p> <ul style="list-style-type: none"> • We'll not sully our hands with selling our wares in the outside market • Entrepreneurial has no place in a university environment <p>Total = 2 statements</p>
<p>Senior Administrators (n = 4)</p> <ul style="list-style-type: none"> • It was an exciting opportunity. I didn't see it as a problem at all. • There is a tremendous opportunity • Creating an opportunity for students • Opportunities arose • Everybody pulled together • Forward thinking people • X was quite visionary in setting up that idea • People who are more flexible & entrepreneurial in their thinking • Distance learning is valuable • Its about social capacity, social access <p>Total = 10 statements</p>	<p>Senior Administrators (n = 4)</p> <ul style="list-style-type: none"> • The fear, I'll lose my job [if I don't change] • The world owes them [academics] a living • We were selling out • Suspicion that these [programs] are money making propositions • High skepticism around cost recovery • Academic snobbery • Fear words, degree mills, cash cows, gouging our students <p>Total = 7 statements</p>

Opportunities	Threats
<p>Faculty Members (n = 6)</p> <ul style="list-style-type: none"> • You are treated so professionally and not only encouraged but expected to do something new and innovative • Students at a distance could be viable students • Universities should be accessible • A boom to our program. A positive aspect for the faculty as a whole • Willing to take risks, to learn new things, you have to believe in it • It takes money to make money • For better or worst...we are not going back • It aligns with my perspective and philosophy • The challenge for staff was a new mindset • GDER was on the leading edge of technology <p>Total = 10 statements</p>	<p>Faculty Members (n = 5)</p> <ul style="list-style-type: none"> • It is a matter of selling out, we have sold out • We are going to lose learning for its own sake • Afraid of losing identity • Fear of competition • The fear of losing [academic] status • On line is less rigorous, than face-to-face • These [programs] require less academic rigor. They [students] would be turned down if they applied [to] face-to-face [programs] • There is no such thing as academic socialization on line • On line is not academic. It was being forced down their throat • Dysfunctional system <p>Total = 10 statements</p>

Table 8 demonstrates the feelings of the participants in this *Entrepreneurial Window of Opportunity* era. It created an environment of excitement, and perceived opportunities for those who saw “opportunities” in stepping outside the traditional realm of doing business in higher education. The study participants who contributed these statements saw themselves as pioneers, the groundbreakers for change, and in control of their faculty’s destiny. However, these participants also mentioned that some faculty members saw only

"threats", and did not grasp the *Alberta Klein Revolution* era of economic realities for higher education.

Other Data Sources

Other sources of data also provided linkages to the *Entrepreneurial Window of Opportunity* era, and subsequently the adoption of business and business-like language. For example, a final report by the New Revenue Generation Task Force (University of Calgary, NRGTF, 2000), confirmed new revenue generation as a priority and "encouraged all staff to pursue revenue generating activities in an entrepreneurial manner" (Summary of findings, point 2). The authors indicated that, "To be successful in a market driven, competitive activities, the University will need to be ready to restructure itself, be entrepreneurial in its approach and be prepared to assess and take strategic risks" (Summary of findings, point 4). A significant recommendation from this report was that: "the university must become significantly more entrepreneurial in attitude and create an environment that provides incentives for strategic revenue generating initiatives" (Recommendation 2, University of Calgary, NRGTF, 2000).

E-mail reports to the academic community from Dr. Harvey Weingarten, President of the University of Calgary, also supported the existence of an Entrepreneurial *Window of Opportunity* era. On February 21, 2006, President Weingarten stated that the university's goal is to "bring in business processes", to "enhance investments in key areas", "to stay competitive with peer institutions", and "build on past investments and reallocations" (*Themes from Academic Planning and Budget Submissions*, message posted to: *all-staff-*

lmailman.ucalgary.ca). On March 27, 2006, President Weingarten wrote about an ambitious expansion of capital projects that is “underpinned by a disciplined financial plan and rigorous budgeting process to ensure that our growth is properly funded” (message posted to: *all-staff-lmailman@ucalgary.ca*).

On October 31, 2007, the President stated that, “whether we like it or not, the modern research university is also a big business” (*The Business of the University*, message posted to: *all-staff-lmailman@ucalgary.ca*), implying that antiquated business systems and processes needed to be overhauled to bring the University into the 21st century of doing business. On January 21, 2008, the President addressed the sustainability issues of the University on how expenses were exceeding revenue generated (message posted to: *ro-students-lmailman.ucalgary.ca*). What is important in these messages is how the President consistently connects staff, students, and faculty members to the business operation of the university by giving them clear messages that they all must do more than deliver courses for the institution to stay operational.

*There are some who act as if there are magical or mystical revenue sources (sometimes believed to be in some secret vault in central administration) that can be applied to match increasing expenses. This view represents a serious misunderstanding of the fundamentals of university budgeting. Money in universities is neither created nor destroyed but it can be transformed (reallocated) from one form to another. (President Harvey Weingarten, January 21, 2008, message posted to: *ro-students-lmailman@ucalgary.ca*)*

Consequently, there was a fundamental shift from the dominance of provincial funding of University of Calgary to the private sector, which

necessitated the need to adopt new revenue-generating strategies and create an academic environment open to entrepreneurial innovations.

In summary, Layer 2 data analysis revealed the existence of two distinct political and economic eras, *The Alberta Klein Revolution* and the *Entrepreneurial Window of Opportunity*. The first one set in motion the rules for navigating the new economic realities faced by higher education institutions, while the second one offered solutions to these economic challenges. One faculty member surmised:

You only have certain windows. You can only get through a window when there is chaos...then what happens is the university re-absorbs that process and makes it their own. Anybody coming up with a new idea has to fit into the understanding of what new ideas are at that time. I always believed that we grew and survived [because of] a time of severe university cutbacks.

In addition, the platform for business language, principles of business, and entrepreneurialism emerged, along with the perceived “opportunities” and “threats” observed by study participants that the *Entrepreneurial Window of Opportunity* era created.

Layer 3: Initial Data Analysis

Layer 3 of the data analysis, the development and identification of the core research codes, involved the identification of themes. The researcher categorized and labeled all the data to form descriptions of five broad themes (see Table 9). Column 1 identifies the theme and relevant codes from the collective data. Column 2 describes the literature review that supported these themes.

Table 9*Themes and Codes with Supporting Literature*

Themes & Codes from Data	Supporting Codes from Literature	Reference
Market/Economy <ul style="list-style-type: none"> • competition • accessibility • entrepreneurial activity • advance technology 	<ul style="list-style-type: none"> • Academic capitalism • globalization • advance technology • competition • accessibility • entrepreneurial activity 	Deem, 2001; Mora, 2001; Rinne & Koivula, 2005; Kwiek, 2001
Accountability <ul style="list-style-type: none"> • performance measures • business principles • revenue generation • cost recovery 	<ul style="list-style-type: none"> • performance measures • business principles • competition • market-oriented 	Newman, Couturier & Scurry, 2004; Berdahl & McConnell, 1999; Ruch, 2004; Smith, 2000; Alexander
Advance technology <ul style="list-style-type: none"> • delivery format • academic role • support • resistance • accessibility 	<ul style="list-style-type: none"> • accessibility • delivery format • academic role • support • resistance 	Kelsey, 1998; Gumpert & Chun, 1999; Duderstadt, 2000; Odin, 2004; Abeles, 2004; Hanna, 2003, Margolis, 2004
Entrepreneurial innovation <ul style="list-style-type: none"> • profit-revenue • business principles • sustainability • risk taking • decentralized budgets 	<ul style="list-style-type: none"> • academic capitalism • profit-revenue • business principles • risk taking • decentralized budgets 	Duderstadt, 2000; Clark, 1998; Etzkowitz, 2003; Slaughter & Rhoades, 2004; Ruch, 2004
Academic role <ul style="list-style-type: none"> • tenure • work load • teaching methods • values • annual reports • competencies 	<ul style="list-style-type: none"> • governance • performance culture • values 	Bok, 2003; Rhoades & Slaughter, 1997; Parker, 2002; Mora, 2001; Daumand, 2001; Clark, 1998; Currie, 2004; Karelis, 2004

An examination of the above themes, codes, and literature across all three participants' groups reveals an internal consistency. In the theme *market economy*, participants' statements implied linkages to the broader codes from the literature of globalization and academic capitalism, as well as the specific themes of competition, accessibility, entrepreneurial activity, and advance technology. In the same manner, all of the rest of the themes have direct and indirect links to each other and the literature reviewed. In the *accountability* theme, the interview codes of cost recovery relates to participants' discussion of how faculties were more market driven and *accountable* for budgets and revenue generation. A senior administrator advised, "If you lose your market share who is going to pay those tenured faculty [members]?" The *entrepreneurial innovation* code sustainability clearly relates to participant's belief that the rationale for creating entrepreneurial innovations was to keep their programs viable. A faculty member indicated, "We had a business plan, we were going to show how we moved ourselves forward to a certain number [of students] based on these kinds of fees, and how we were going to manage our financial sustainability". Additional related codes from the interview data linked to the theme of *academic role* in terms of tenure, workload, annual assessments, and teaching methods, which all are specific functions of the academic role. In the *advance technology* theme, the codes are all consistent with the literature reviewed and there are links to the themes, *academic role*, and *market economy*.

The following interview excerpts from the three participant groups support the five core themes that emerged in Layer 3.

Market Economy

Central Administrators

It is a value [on line programs]. They [government] speak about in a market/business oriented way of operating things to improve efficiencies. The flip side of this, is when you do something that has a market and people like it, and it is potentially revenue generating and helps the rest of the university [government] feels they have to protect people from themselves.

[OTP programs]... there are no rules that say I can't, so that's what the market will pay us, so its pure entrepreneurship at its best. There's a market, I see the market, I've targeted the market, I've produced a product for the market, I've sold this product to the market, I charge what I want the market to pay and I get keep the money....that's kind of the start of how this happened.

Senior Administrators

The only way that you can hire more faculty is to generate more money. It seemed to me that there were three ways to generate money. One was to sell services that we had to whoever who would pay for them, the other way was offering courses outside of tuition policy, and the third way was to seek through the world banks projects where our teaching staff could be employed in doing work abroad.

I recognized that the Royal Bank and Canadian International Development Agency were wanting to partner with Canadian Universities and Institutions abroad in countries like China, in troubled areas, some places like South Africa, and the Soviet Union, and in old areas like the former Yugoslavia, middle east Africa.

Faculty Members

Universities should be accessible in a variety of ways

Universities are struggling to survive and the tension we experience is the reality of our decreasing budgets and increasing demands.

We have been put in a position where we have to compete with other institutions. It's like a pit-bull mentality we have been thrown into this pit with a whole bunch of other post secondary's and said, ok, here's the money, fight it out.

Accountability

Central Administrators

The ministry had explicitly included in the tuition policy of on line delivered programming as outside tuition policy as an incentive for institutions to develop that kind of programming and offer it on a cost recovery basis.

Senior Administrators

We amalgamated and consolidated the administration. Having the centralized view of the programs allowed us to say which initiatives were paying off, which ones were not. By paying off, I mean financially, but also academically and programmatically.

We had program pieces in place, finance pieces in place, staffing in place, so that every time they said, "is this sustainable?" we could haul out the business plan.

Faculty Members

The University of Calgary had so much less in terms of resources and a greater amount of accountability.

The government then introduced key performance indicators and started to look at things like student satisfaction.

A strategically different decision was made-that each ship would be on its own bottom, each faculty would receive its own budget, essentially independent. So there will be territorial and boundary disputes, it will promote and encourage entrepreneurialism, it will promote and encourage competition.

The university can benefit and has a lot to learn from business and industry in terms of being fiscally responsible.

Advance technology

Central Administrators

What I expect is that faculties and programs would develop programs that are effective means of educating students for the particular times we live in.if that is by the use of technology, or how they use technology I would expect academics to be at the front edges.

Senior Administrators

We were almost the first program the University to set up distance programs on line. We started to sell [technology] services to the rest of the University and anybody else who would pay.

...there is money coming in and it is a high priority on the part of the University and the government. ...in Information technology, there is gigantic development in Information technology.

...people who are much more entrepreneurial in their thinking so they don't get stuck and bogged down in conversations whether or not distance learning is

valuable and whether or not people learn as much in distance as they do face-to-face.

The academic rigor is much more controlled in the on line courses, a lot more structure.

Faculty Members

We were doing much, much, more with fewer resources, it was dependent on technology.

How can we say we honour diversity and still maintain a particular teaching style that really implies that everybody learns a certain way. The on line environment levels the playing field for students

On line medium is one more way of establishing a powerful learning community.

Entrepreneurial innovation

Central Administrators

Professional faculties have become the innovators, in the forefront. Professional faculties take the risks and are not afraid to think creatively, they have produced the critical thinkers.

The distance delivery MEd and EdD progrms were held up as the examples of entrepreneurial activity.

Senior Administrators

Entrepreneurial at the academia level may be seen as frivolity, not seen as in the traditional academia. I see it as the two can be complimentary, in the sense that they feed off each other.

...a successful innovation is that it sticks. Our Gifted Centre is permanent. CORE has been successful. The graduate programs are clearly working and it seems to me that it remains an innovation and an interesting program important to its clientele. The Galileo network is generating \$4 – 5 million a year income, and doing work all around the province.

Faculty Members

The bottom line is that the notion of running things more like a business is not only going to be dealing with more money for staffing but what business you are in. The challenges of being entrepreneurial and the opportunities, but essentially universities...have not been organized with an entrepreneurial bent.

Faculties are going to have to become more entrepreneurial as a way of dealing with a gradually reducing funding base.

Our entrepreneurial initiatives have to be thoughtful, strategically selective and purposeful.

Academic role

Senior Administrators

Business marketing, entrepreneurial flair is not really there for many academics...

There is a perception of an OTP program [from academics] that it requires more start up time. Any program in start-up mode requires extra time. No different from a campus program. Academics were rewarded for their strong contributions to the program. There were exemplary merit points for service.

Faculty Members

How do you get a sense of faculty and a sense of continuity for the student and how do you get a sense of why we are in this business. What is our business? What are the outcomes we want to achieve?

Instead of being all in it together, we were all out for ourselves rather than pulling together as a team.

I don't see an time soon the value of having the status in our society of a professor whose job is to generate new knowledge and then teach the new generation about it.

In an on line environment there is so much more pressure on you to facilitate the learning process as opposed to the "sage on the stage". Facilitating learning is a whole different process from the "chalk and talk".

Other Data Source

Concepts found in the Self-Appraisal Report of the Graduate Division of Educational Research (Webber, 2006) added to the validity of these five themes. Specific codes such as accessibility, competition and advance technology supported the *market/economy* theme. Codes such as cost recovery and revenue generation supported the *accountability* theme. Sustainability and collaborative ventures supported the *entrepreneurial innovation* theme. In addition, supervision, workload, and teaching methods are codes consistent with

the *academic role* theme. Found throughout the document was the theme *advance technology*.

In summary, Layer 3 of the integrated data analysis provided evidence for five core themes that appeared consistently across all three data sources examined: market economy, accountability, advance technology, academic role and entrepreneurial innovation.

Layer 4: Secondary Data Analysis

Layer 4 data analysis exposed two discrepant research themes, *shifting rules of engagement*, and *academic resistance* from the interview data that were also not evident in the literature reviewed (see Table 10).

Table 10

Discrepant Themes and Codes

Themes from Interviews	Supporting Codes	Description
Shifting Rules of Engagement	<ul style="list-style-type: none"> • ACCESS & OTP • "soft" money vs. base funding • ITP & OTP • Carry-over • Unwritten rules • Amalgamation of on line programs & ITP • Decentralized budgets 	The rules keep changing and there is no model to follow. Changing rules downwards from government to central to senior administration created a domino effect. The ground kept shifting, an unlevelled playing field where it is anybody's guess at the rules.
Academic Resistance	<ul style="list-style-type: none"> • On line teaching • Profit • Business-like practices • Academic elitism • Fear of change • Attitude 	Faculty members are resisting the changing academic role. The expectations of being an academic are no longer the same.

Shifting Rules of Engagement Theme

The theme *shifting rules of engagement* emerged from the perceptions of central and senior administrators when speaking about the difficulties of developing and implementing entrepreneurial innovations without any clear or consistent university guidelines. The following excerpt represents the perceptions of a central administrator who coined the *shifting rules of engagement* term.

Rules of engagement not defined – it was an environment of frenzied activity for those faculties determined to make a go of it. Those who held out for the higher moral ground stayed in the dust, as economics became the necessity over philosophy.

Each faculty wanted their special privileges and negotiated when the stakes were high. The wild frontier required taming, law and order to be established equated to the Gold Rush era. Central administration became the judge and jury, the arbitrators to bring some sense of order to capitalism at its finest hour. Even then, central administration could not keep up with the ongoing changes, the unwritten rules when the game plan changed at the top (government). Rules are tough when one size does not fit all, and interpreting the degrees of freedom with the government is on a day-to-day basis. The ground keeps shifting underneath so we try to anticipate the future in an increasing competitive environment.

All central and senior administrators acknowledged the poorly defined rules and policies for the development of entrepreneurial innovations in their interviews, as illustrated in the following excerpts:

Central administrators

We really have not worked out a model that replaces or makes an internal version of outside tuition policy or entrepreneurial programming yet, this has put a damper on the willingness to go to the effort of bringing on new programming.

There is a draft [policy] that lays out some of the problems and issues but has not been approved...that's up [available] for public consumption.

...this committee and their role are simply to define what OTP means. Try to bring some bureaucracy around entrepreneurship.

Hiring full-time employees on these [OTP] initiatives, it is a business decision, it is a major risk [that the faculty can make]. Now when I say this, I don't think this is in writing anywhere. I would be surprised if you could find what I have just described to you as the rules of engagement written down anywhere.

Senior administrators

I think the university has to be more proactive around their policies and more agile in creating them. We ran well ahead of the university system...but when I look at it, the risks you take when you don't have a policy environment that is visionary and can keep up with you, then you feel unsure, you are vulnerable...vulnerable is the right word...

There has to be enough security centrally so that when you are operating and moving along you know the rug won't be pulled out from under you, and yet, you can't have so much policy that you can not be innovative.

Other Data Source

The GDER Self-Appraisal Report (Webber, 2006) also supports the *shifting rules of engagement* theme (Table 10, p. 95).

...rather than being "soft funding," the revenue generated by the Graduate Division has turned out to be more stable and predictable than provincial grants. (p.2)

Cost recovery programming allows greater flexibility than do access funds, which are allocated to specific programs and assessed using rigid parameters. (p.19)

The ongoing reductions in the regular Graduate Division operating budget will mean a continued need to maintain revenue-generating initiatives. (p.47)

These quotes demonstrate the inconsistent rules found between "soft funding", (non-government funding) and base funding (government grants). Traditionally, academic institutions' budgets depended only on government grants but since

the Klein Revolution era, Faculties found that “soft funding” was more predictable than base funding, and thus began to depend on it in budget decisions.

Academic Resistance Theme

The *academic resistance* theme that emerged from the data appears to be the result of faculty members struggling to come to terms with the changes to their traditional academic role due to entrepreneurial innovation. Faculty members provided multiple comments that illustrate conflicting emotions related to their changing academic role:

There clearly is a high demand for the courses [on-line], and in offering those courses, you see you are making some money for the faculty, which the faculty hopefully will treat you well in terms of it.

Some faculty members are worried about the quality and quantity of [graduate] supervision. As programs expand there is no credit for supervision so they see it as extra workload, and they don't know how effective they will be dealing with it at a distance because they don't have the same amount of contact. They see a pressure to do more work without reward and its taking away from the work they ultimately are evaluated on.

I have taught a lot of face-to-face and on-line [courses]. Do I put more time in the on-line [course]? Absolutely, just because you don't have your 2 days a week or your 3 days a week for two hours [face-to face courses]. I'm on line every day, 7 days a week

The culture of research is about getting together to chat, [there is] no community here, [we have] no place to chat...this is a business, we are doing business, students [are] like our customers, [we are] regulated, to do the meetings... we no longer have a culture to sit and chat with our students.

The realization [is] that to teach on line is double the time for a professor. There are no longer signposts, performance indicators for expectations for new professors because where would they know that in their closed offices.

The complexity of the job far exceeds your competencies as a scholar, its more than your academic abilities, it's about your entrepreneurial skills, and it's your management skills

...it is a compression of time, the need to produce, to bring in money-it does not give us the luxury of time to think, to be critical, to formulate new ideas

...to be quite honest, it feels like you are a cog in a wheel. The experience teaching as a faculty member is not a positive one, partly because you do not have a relationship with students, you [also] don't necessarily have a relationship with others in the program.

Faculty are treated as entrepreneurs who are contracted by the university to teach the courses. The evaluation structure only still measures your participation on committees, your publications and scholarly work

You are rewarded for being a traditional academic faculty member; you are not rewarded for being altruistic or being creative.

Other Data Sources

The GDER Self-Appraisal Report (2006) also supports the discrepant *academic resistance* theme:

Insufficient recognition of supervision as part of regular teaching assignments can jeopardize sustainability of graduate programs. (p.48)

Loss of a viable balance between teaching, research, and service responsibilities can weaken the Graduate Division. (p.48)

Faculty members who focus on research at the expense of teaching excellence and service to the university and professional communities, risk losing a stable base for their academic work. (p.48)

The Faculty Association newsletter *Academic Views* (February, 2006) lends additional support for the *academic resistance* theme.

Association members regularly are required by the University to buy their own computer supplies, pay for copying, and that in some areas academic staff have to buy their own pens and pencils. (p.4)

This is a non-productive use of time and expensive for the institution as it steals academic staff away from the job duties they were hired to perform. (p.4)

We are told that academic decisions are made by academic staff...From our experience, and from what we hear from our members, there is so little substantive content left in academic decision-making as to make the claim meaningless. (p.2)

This theme describes faculty members who are clearly struggling with the changes to their traditional academic role that requires participation in both administrative and programmatic entrepreneurial innovation. While the faculty members interviewed in this study are not necessarily opposed to adopting entrepreneurial responsibilities, many did feel the conflict between these new responsibilities and the traditional academic roles of research, teaching, and service, as well as a reward system that determines tenure, promotion, and merit increments on these three traditional roles only.

Layer 5: Verification of Data Analysis

The final fifth layer of analysis verified previous data analysis results with triangulation of all the data and member checks. The triangulation process included cross checking the three sources of data (interview transcriptions, organizational documents, and journal notes) to confirm the five core themes (market economy, accountability, advance technology, entrepreneurial innovation, and academic role). The researcher conducted member checks with participants from all three groups for further validation of the two discrepant themes (*academic resistance* and *shifting rules of engagement*) only, as the five consistent themes were strongly supported by the literature. Results of the member checks confirmed and further clarified the two discrepant themes.

Summary

Chapter 4 presents the results of the five-step systematic data analysis. In step one, collection and sorting of the data occurred. In step two, the two prominent educational eras (*Alberta Klein Revolution* and the *Entrepreneurial Window of Opportunity*) emerged. In step three, five core themes (market economy, accountability, advance technology, entrepreneurial innovation, and academic role) emerged from the data. In step 4, two discrepant themes (academic resistance, shifting rules of engagement) emerged from the data, and step five verified the previous four steps outcomes.

CHAPTER FIVE: DISCUSSION OF FINDINGS, AND RECOMMENDATIONS

Overview of the Study

The purpose of this study was to explore the impact of entrepreneurial practices on one Western Canadian traditional university, in order to understand how entrepreneurial practices in institutions of higher education may be contributing to the transformation of traditional higher education. Higher education institutions do change (Kezar, 2001); the challenge is to understand how these changes are affecting higher education at this point in their evolution. The types of changes institutions face today may necessitate a re-thinking of the traditional culture, values, and academic governance structures that have traditionally formed its foundation (Kezar & Eckel, 2002).

A constructivist, interpretive research approach, and a case study design investigate two entrepreneurially innovative graduate programs (Doctor of Education and Masters of Education) in the Graduate Division of Educational Research (GDER), at the University of Calgary.

The researcher collected three kinds of data: interviews of 16 purposefully selected participants from central university administration, senior faculty administration, and faculty teaching in these two programs, researcher's journal observations, and organizational documents. The data analysis employed a systematic five-step data process of cycling through the data that revealed the seven themes.

Methodological limitations of the study include the potential biases of the researcher, whose assumptions were stated in Chapter 3. Transferability of the study's findings is limited to higher education institutions with similar programs.

This chapter links the findings to the literature reviewed and draws conclusions and recommendations from them. A revised model of the evolving university illustrates how traditional institutions of higher education successfully adapt in today's global economy by integrating entrepreneurial innovations into the business plan. Recommendations for university administrators and future research directions are also presented.

Discussion of Research Findings

This research began with a literature review identifying external and internal environmental forces acting on institutions of higher education today. The impact of key external environmental forces of globalization and the market economy included increased government accountability of higher education, the growth of global knowledge and technology, and the changing public perception of the role of traditional higher education in western culture. These forces resulted in the creation of entrepreneurial innovations to ensure institutional viability, which in turn challenged the traditional internal environmental elements of academic governance, culture, values, and academic roles. A preliminary model presented in Chapter 2, (Figure, 1, p.17) represented the researcher's initial perceptions of how entrepreneurial innovations might have evolved from these external forces, and internal environmental elements with the university's culture, values, and governance being the focus of this study.

Core Research Themes

Five core inter-related themes (market economy, accountability, advance technology, academic roles, and entrepreneurial innovation) supported by the literature emerged from Layer 3 of the data analysis.

All five themes were consistent with each other in that they all describe an aspect of corporate governance, culture, or values. All participants acknowledged the theme *market economy* and its influence on the changes occurring in higher education. A faculty member participant commented that “higher education will be influenced by globalization, forces of marketization, managerialism, [and] we will be educated into it, a natural evolution or devolution”. The influences of the market economy on higher education have created greater competition for funding and for students. These influences have resulted in the increase use of advance communication technology for programming and program delivery in order to increase accessibility. With this move into the market economy, a new drive for *accountability* arose when governmental policy makers began introducing financial accountability measures for higher education to meet in order to secure government funding. Business-like practices began saturating the academic culture (Alexander, 2000; Berdahl & McConnell, 1999; Lui & Dubinski, 2000) as reduction in government funding forced faculties to come up with innovative ways to generate revenue in order to sustain their current programs or develop new ones.

At this time, advance communication technology was dramatically changing communication patterns in most sectors of society. The theme *advance*

technology describes the adoption of distributed communication learning systems to reach students globally with innovative entrepreneurial programming. As well, the data and the literature acknowledged that these extraordinary advances in communication technology have had profound implications for the fundamental academic roles of teaching, research, and service in higher education (Duderstadt, 2000). There are those faculty members' who embraced the technology and all it has to offer, and those who did not. Faculty participants' alluded to how "some" academics were not comfortable with on line teaching, or felt distributed learning was not "real" learning.

The theme *academic role* involves the responsibilities associated with traditional academic activities such as research and scholarship that created the culture of the traditional higher education institution. The external and internal forces acting on the higher education environment may require a reconfiguration of the traditional academic role to incorporate traditional academic values with entrepreneurial ones. The core theme *entrepreneurial innovation* refers to how traditional higher education institutions have applied business principles and taken business-like risks to allow faculties to develop innovative revenue generating programs in order for all programs to remain sustainable.

These five core themes (market economy, accountability, advance technology, academic role, and entrepreneurial innovation) together point to a strong, and predicted by the literature, shift in academia towards a business model of operation, which is now affecting its culture, values, and governance structure.

The Emergence of Policy and Practice as Critical Issues

As the researcher conducted the fourth data layer analysis, two less consistent themes (*academic resistance* and *shifting rules of engagement*) not predicted in the literature emerged. At the same time, it became evident that the misalignments of two important organizational elements (policy and supporting practices) were instrumental in participants' experience of conflict about policies guiding their entrepreneurial practices. These two organizational elements (policy and practice) emerged as critical when the researcher recognized that this conflict was due to their perception of this misalignment. This misalignment between these organizational elements is discussed further in the context of the reframing approach. The definitions of university policy and academic practices are outlined in Chapter 1 (see Table 2, p. 11). To reiterate, a university policy is the University's position on issues that have university-wide application and exemplifies its governing principles that fulfill its mission. Policies change infrequently and the Board of Governors or the General Faculties Council of the University approve all changes. University academic practices are those that articulate the method by which a policy is carried out and outlines a set of instructions.

The Two Discrepant Themes Viewed Through the Lens of the Reframing Approach

Bolman and Deal's (1984, 1991) offers one social constructivist view that emphasizes four aspects of the organization called frames from which to interpret

further the two discrepant themes (Palmer & Dunford, 1996). Briefly, the major points of the four frames (political, structural, symbolic, and human resource) are:

- The political frame examines how organizational change generates conflict and creates winners and losers.
- The structural frame explores how organizational change alters the clarity and stability of roles, and relationships, sometimes creating confusion and chaos.
- The symbolic frame identifies how people form attachments to symbols and symbolic activity such as myths, rituals, and ceremonies, and how they have trouble letting go when these attachments are severed.
- The human resource frame investigates how organizational change causes people to feel incompetent, needy, and powerless. Employees have needs and feelings along with skills and limitations, and when needs are not met problems occur. (Bolman & Deal, 1984, 1991).

Depending on the situation, one or more frames may assist in understanding change more than others may. Choosing a frame involves a combination of “analysis, intuition, and artistry” (Bolman & Deal, 1991, p.270). Certain conditions suggest which frame may be more effective to respond to a situation but ultimately judgment and intuition determines the frame.

Table 11 lists the frames that the researcher believes to be the most relevant for understanding the two discrepant themes, *academic resistance* and *shifting rules of engagement* that emerged in this case study.

Table 11

The Discrepant Themes and Reframing Approach

Theme	Related Frame
Academic Resistance	Human Resource, Symbolic, Political
Shifting Rules of Engagement	Political, Symbolic, Structural

Academic Resistance Theme

Human Resource Frame

The *human resource* frame deals with the issues of individual commitment, energy, and skills required for effective implementation of change.

Entrepreneurial innovation has caused confusion about the academic role in terms of the need to acquire traditionally non-academic skills (financial accountability, business management) to administer OTP programs, and non-traditional teaching skills (facilitate on line critical discussions, design a course in a virtual classroom, navigate technical platforms) to move from face-to-face teaching to a distributed learning format (on line teaching). Faculty members' ambivalent feelings about these changes are evident:

Facilitated [eg. On line] learning is a whole different process from the "chalk and talk". It really requires different kind of process and very different kind of skills.

You need people that are willing to take risks, to learn new things; you have to believe in it [on line teaching].

Faculty members in this study confirmed that there is conflict between their traditional academic role and current entrepreneurial OTP programs in which they teach. In addition, the perception of academics is that their workload

has increased with the advent of on line teaching, the increased numbers of graduates for supervision, and the taking on of new complex roles such as managing and marketing programs. Faculty members' traditionally did not have to think about the economic side of education. Many resent the time that this new responsibility takes because it takes away from their research and teaching responsibilities. Faculty members believe that these changes to the academic role are the direct result of "the corporatization of the university".

Viewing this theme through the *human resource* frame points out how the shift towards entrepreneurial innovations in this institution of higher education has caused some academics to feel incompetent and powerless.

Symbolic Frame

The *symbolic* frame addresses the importance that organizational members attach to the traditional academic values and symbols in their organization. This is apparent in the following excerpts from faculty members that demonstrate perceived changes to the values and symbols regarding academia by the advent of entrepreneurial innovation in higher education:

The tradition of the university is where you are learning at the foot of the master, those who are knowledgeable in the field, and it is not a plug and play.

The old professorial experience, image, ego, status around great minds sitting down with their pipes and asking the big questions. The ivory tower mentality, there is something about being on line that has reduced that to the common man. The fear of losing that status, that contributes to the resistance [felt by academics].

[University] it is supposed to be a community of scholars where you dwell and talk. As an academic I am struggling, where is the community?

The corporate world...has an influence on the education world. We no longer have a culture to sit and chat with our students.

Acknowledging the role of the academic in the success of organizational change is crucial and necessary, if the organization is going to change in meaningful ways. Change will not happen unless all members of the organization believe in the proposed changes, and adopt work behaviour that supports these changes (Poole, 2004; Seigal, 1996; Woodman & Dewitt, 2004). Faculty members are struggling with the loss of traditional symbolism associated with the academic role such as “community of scholars, expert status, and traditional face-to-face teaching methods”. Some academics fear that the traditional higher education values embodied in these symbols such as research and scholarship, the importance of independent social criticism, and development of students’ meaningful philosophy of life as the key goal of education may be lost in the evolution of higher education (Deem, 2001; Karelis, 2004; Parker, 2002).

Political Frame

In the *political* frame, the vested organizational members negotiate the acceptance of change. The disappearance of traditional collegial governance decision-making that both involved and informed faculty members about entrepreneurial innovations may have contributed to the high level of current uncertainty in academic roles and thus, this academic resistance theme.

Another political aspect to the academic resistance is the faculty perception that the academic tenure and promotions system does not recognize and reward these new responsibilities. “There is a pressure to do more work without reward and its taking away from the work they (academics) ultimately are

evaluated on” (Faculty member). The current Faculty of Education assessment process evaluates faculty members on scholarship of teaching and application, scholarship of discovery (research) and integration, and service. Under the scholarship of teaching and application section, there is recognition of distance delivery teaching and an expectation that faculty members be proficient in a variety of teaching, and application roles. Innovation is also mentioned in terms of “exceptional contributions or innovative accomplishments” (Procedures Pertaining to Appointments, Promotion, & Tenure of Academic Staff, 2002, p.13). The tenure and promotions process does attempt to recognize entrepreneurial activities, but this misperception of academics regarding the tenure and promotion system, if left unaddressed, could negatively affect entrepreneurial programming initiatives.

Senior administrators confirmed faculty members’ beliefs that their academic role should center on “the students and their research” and that fiscal responsibilities involved in marketing new programs detract from these activities. They confirmed that fiscal responsibilities are an administrators’ job and that academics are not comfortable with the idea that they have a responsibility to sustain their programs. Senior administrators’ also acknowledged that this academic resistance was a clash between the faculty members’ traditional role and changes to this role introduced by entrepreneurial innovation that may not yet be adequately reflected in the annual performance evaluation system. Senior administrators’ also felt that faculty involved in entrepreneurial programs, are rewarded fairly for extra workload, and are given recognition for supervision of

graduate students, resulting in an annual performance evaluation process that is fair to those faculty members. Central administrators felt the same way.

What became evident in this theme, is that the faculty members are interpreting the policies of teaching (tenure and promotions evaluation procedures) in terms of what they are evaluated and rewarded on, to their actual practices of teaching, that included far more work and additional skills they perceive are compensated for. Consequently, there is conflict due to their perception of this misalignment of the two organizational elements (policy and supporting practices). This academic resistance theme emerged for the faculty members and not for central and senior administrators.

Figure 4: Academic Resistance –Regarding Programming Policies and Practices

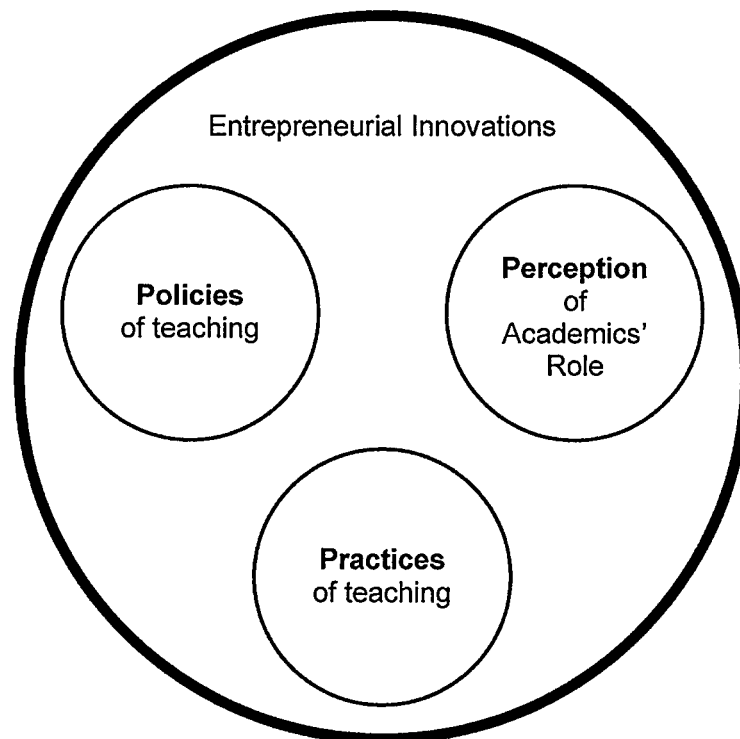


Figure 4 illustrates the misalignment that faculty members experienced between their institution's policies, practices, and their own perception in regards to the academic role of faculty members, and entrepreneurial innovations, resulting in the *academic resistance* theme. If there were alignment, the three circles in the middle should intersect together.

Shifting Rules of Engagement Theme

Political Frame

Politically, a government-funding crisis in higher education precipitated a top-down ripple effect from central administration to the individual faculty administrations to start thinking creatively in how to address scarce resources. With no policy guidelines or template for the development and implementation of entrepreneurial innovations, both central and senior administrators made the decisions regarding them, thus engaging in a power struggle. Having power in organizations is the ability to get things to happen (Bolman & Deal, 1991). Because the Faculty of Education initiated some of the first entrepreneurial programs at the University, senior faculty administration gained the power to negotiate some of the "rules of engagement" over the central administration. Currently, however, who makes what decisions is "in negotiation" at the central administration level, with the result being a general sense of confusion all around.

Most central and senior administrators identified the difficulties of developing and implementing entrepreneurial innovations without policies, or official document for direction. Consequently, how central administrators, senior

administrators, and faculty members interpreted the rules for these entrepreneurial innovations changed over time. A central administrator commented, "We did not do a very good job of setting the rules on these programs, far too much was done case by case as the entrepreneurial faculty and faculty members came to us for special treatment". Although the majority of support for this theme came from the central and senior administrators, faculty members' perceptions also confirmed the existence of different interpretations of policies, rules, and regulations regarding entrepreneurial (OTP) programs.

Symbolic Frame

The *symbolic* frame is relevant here because changing values and practices associated with the adoption of entrepreneurial innovations affects the myths and rituals that traditionally have defined the culture of the institution of higher education. Traditional institutions of higher education have strong myths and rituals that support a culture of research and scholarship, independent social criticism, and the construction of new knowledge, certainly the esteemed values of the University that forms the focus of this study. Unfortunately, entrenched myths and rituals can blind employees of the organization to new learning opportunities that would allow adaptive change to occur. This is evident in the *shifting rules of engagement* theme in this study, where administration saw educational opportunities outside the traditional boundaries of academia. Some academics did not see these opportunities and fought against what they perceived as selling education as a commodity.

The following excerpts from central and senior administrators' interviews illustrate the changing nature of symbols or values in the University in the *shifting rules of engagement* theme:

Senior Administrators

This is "academia after all". We should not just be doing a bunch of courses to get a degree but that we should be doing a solid block of research – that's what universities are supposed to be like.

A feeling that we were selling out, we were taking a business model, a corporate model – selling a product that the government should be providing the resources for that are needed for all us to have a good education.

Central Administrator

The public sees us as archaic, can't keep up with the times, slow moving and the changes do not occur fast enough. On the other hand, academics see themselves as "self-important", the givers of knowledge but are really ill informed about the changes that need to occur. Their concerns are not evidence based, and administration is caught in the middle.

There were some hold outs [to entrepreneurial innovation] that simply said no, this is a university and if administration was doing what it should be doing it would be going up and getting us more money from Edmonton. We will not sully our hands with selling our wares in the outside market. A philosophical positioning, not an economically defensible one.

Structural Frame

Structure provides clarity, predictability, and trust (Bolman & Deal, 1991) for the employees of the organization. In the *shifting rules of engagement* theme, unclear rules and policies surrounding the development, implementation, and resource allocations for entrepreneurial innovations are evident.

One area that caused the greatest confusion and lack of direction was the ownership of "carry-over" revenue from the entrepreneurial programs. From the perspectives of the central administrators, the question of ownership of carry-over revenue is a sensitive one because carry-over revenue provides an

incentive to create new programs and to cover planned contingencies. These cost recovery accounts used to mean that the faculty could keep 100% carry-over from one year to the next for investment and had protection from any claw backs from central financial services. Somewhere along the way, the rules changed, and these cost recovery accounts became susceptible to claw backs from central administration. A central administrator acknowledged “those special privileges have been lost, something that does not sit well with the early adopters of entrepreneurial innovations”. At the same time, these new rules were never clearly or consistently enforced which gave rise to the *shifting rules of engagement* theme.

On one side, senior administrators felt this “hands off” approach by central administration gave them autonomy and allowed for greater flexibility for the creation of entrepreneurial innovations. On the other side, this lack of clarity caused senior administrators to worry about “when the rug would be pulled out from underneath them” should the rules change yet again.

The following excerpts from central and senior administrators’ interviews illustrate this:

Central administrator

We had an old rule that said no ongoing expenditures with “soft” money. No staff, and definitely no tenured track professors because those are potentially a 35 year commitment. We basically relaxed the rules, and now not officially but unofficially, said to the Deans, look you manage your faculty. If the world comes crashing down and the “soft” money disappears, and you have on going commitments, then that’s your problem. It is a business decision, it is a major risk decision, and the [Dean] can make it. I don’t think this is in writing anywhere.

Senior administrators

We convinced central administration that our income for these programs should not be considered soft money because it was more predictable and more sustainable than was our on campus budget.

... at the end of each budget year as the central administration got increasingly hungry, they would look at our carry-over and want to take it. We needed that money to staff and build programs.

At the same time, this lack of clear policies appears to work in favour of those senior administrators supporting entrepreneurial innovations. Without a “game plan” from central administration, senior administrators were able to be creative, flexible, and respond quickly to educational market needs by bringing in “soft money” revenue from these innovations to replace scarce resources for the faculty. One area that profited by this soft money was the creation of new faculty positions. Traditionally, tenured track faculty positions are government funded, but senior administrators convinced central administration to allow them to hire tenure track faculty with the “soft money” that they generated to ensure program sustainability.

In the *shifting rules of engagement theme*, the lack of financial policies around entrepreneurial practices and innovations created the perception from central and senior administrators that financial practices evolved along with the program. This perception allowed senior administrators to be creative, flexible, and responsive to the changing needs of the program, at the same time, there was the perception that the “academic world could come crashing down” should central administrators decide to institute binding rules.

Figure 5: Shifting rules of engagement – Regarding financial policies and practices

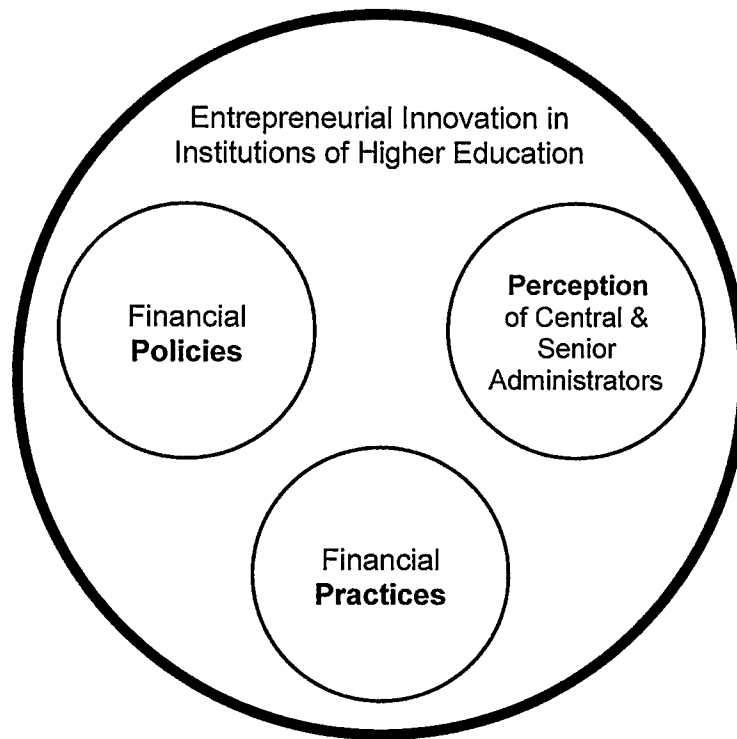


Figure 5 illustrates the misalignment that central and senior administrators experienced between their institutions' policies, practices, and their own perception in regards to entrepreneurial innovation, resulting in the *shifting rules of engagement* theme. If there were alignment, the three circles in the middle should intersect together.

Summary

Faculty members did identify ambivalent feelings about the changes affecting their academic roles that came with the pursuit of entrepreneurial innovations. Not necessarily opposed to entrepreneurial innovations, faculty members struggled with the increased demands on their time, learning the

different skills required, and dealing with an academic tenure and promotions system that they perceived did not reward them for these increased responsibilities. At the same time, faculty felt that the new ways of teaching (distributed learning) no longer provided a traditional scholarly community or a culture where students learn “at the foot of the masters”. Higher education now appeared to be “commodified”, with some questioning what this means for the future of academia. The consequent high level of ambiguity and ambivalence experienced by faculty members created the *academic resistance* theme.

Central and senior administrators acknowledged that the adoption of entrepreneurial practices in higher education has caused conflict for those faculties opposed to a new “corporate” way of doing academic business, while generating exciting opportunities for others. Both administrator groups agreed that unclear rules and lack of official policies did create a “*shifting rules of engagement*” environment within the institution. There was a top-down request to the faculties to create innovations, but the rules and guidelines to do so were vague and confusing. The Faculty of Education was one faculty that challenged the academic “status quo” and found new ways to increase revenue for depleted faculty resources and meet new educational market demands at the same time. The central university administration saw this faculty as setting the example for others by stimulating interest for new ideas and creative academic programming, but some other faculties saw the Faculty of Education as “rocking the boat”. A senior administrator commented that,

The President said the Faculty of Education is running a model that the whole University should be operating on. It has gotten to the point where

instead of being the bad guys because we have been doing the non-traditional things, we have become sort of the bad guys because no one wants to hear you being praised.

Another senior administrator commented that,

The resistance was not from central, we had strong support centrally, and we had strong support externally.

Addressing the Research Questions

The overall research question was “What are the impacts of entrepreneurial practices and innovations on a traditional higher education institution as expressed by the research participants?” Specific sub-questions dealt with the impacts that these entrepreneurial practices and innovations have on the following aspects of the institution:

1. roles and responsibilities (training, skills and characteristics) of academics;
2. institutional rules and policies regarding entrepreneurial innovations;
3. institutional culture and values; and
4. purpose and meaning of higher education

Roles and Responsibilities of Academics

Addressing sub question one, the *academic resistance* theme is about the changing role of academics in relation to teaching and marketing entrepreneurial programs. Faculty members saw that their traditional academic role was now different as traditional teaching methods changed and new skills were required, and financial sustainability of programs became added as a faculty member's responsibility. On top of these changes, faculty members felt that the academic

tenure and promotions process did not adequately recognize them for their involvement in these entrepreneurial programs. Increased workload and responsibilities took time away from their research role, which is still the key academic responsibility that this evaluation system recognizes.

The central and senior administrators in this study believed that in order for higher education to survive, everyone in academia would need to adapt. When an organization's survival is challenged, sometimes employee resistance may offer an opportunity for management to better understand these changes, as well as perceive additional or even different solutions. Employee resistance can act as a gateway or trigger to help management to rethink or reevaluate a proposed change initiative (Coetsee, 1999; de Jager, 2001). In this case, the academic resistance may be an opportunity for administration to evaluate and determine the successful indicators and the issues with entrepreneurial innovations.

Institutional Rules and Policies Regarding Entrepreneurial Innovations

Addressing sub question two, the researcher found that policies for entrepreneurial programming were non-existent in the institution. *The Window of Opportunity* era did not produce a clear policy foundation required to assist institutions to address its new challenges. For example, although the Alberta provincial government established specific policy regarding inside (on campus) tuition fees, the policy does not pertain to tuition fees established for programs operating outside of the institution. Central administration sets the policies for outside (distributed) tuition policy (OTP) programs for the institution. With the

introduction of advance technology to facilitate distributed teaching, a door opened for faculties to generate revenue under the auspices of outside tuition fees policy. The Faculty of Education, specifically GDER, was one of the forerunners at this institution in the development of these entrepreneurial innovative (OTP) programs.

Since the commencement of this study (March 16, 2007), the Alberta provincial government no longer differentiates between inside and distributed learning programs, and both now fall under inside tuition fee policy regulations (Wallace, 2007). This change has caused a great deal of confusion around financial accounting of prior established OTP programs. It has also created another dilemma in how the university administration will define the parameters for entrepreneurial programs for Faculties to be innovative and generate revenue.

Culture, Values, and the Purpose and Meaning of Higher Education

Addressing sub questions three and four, central and senior administrators acknowledged that the academic culture is changing but not necessarily in a negative way. They believe that the resulting new way of conducting the business of academia has left the fundamental purpose and meaning of higher education intact. Central and senior administrators did not feel that the core values of the University were in jeopardy. New cost-recovery and income generating practices allow the institution to be more responsive to students' changing educational needs and increase their accessibility to programs. On the other hand, faculty members interviewed in this study, while

not opposed to entrepreneurial innovations, experienced a sense of loss for the traditional academic culture and wondered if the traditional purpose and meaning of higher education might subsequently be lost.

Traditionally, academic culture invokes the image of “hallowed halls of learning where the students sit at the foot of the master” that has been very resistant to change. With the adoption of entrepreneurial innovations in higher education institutions, the culture is evolving to encompass new concepts, as well as new meanings for old concepts (Schein, 2004). In order to bring all organizational members “on board”, leaders of the organization need to evaluate the degree to which the old culture aids or hinders the changes the organization is trying to make and make changes.

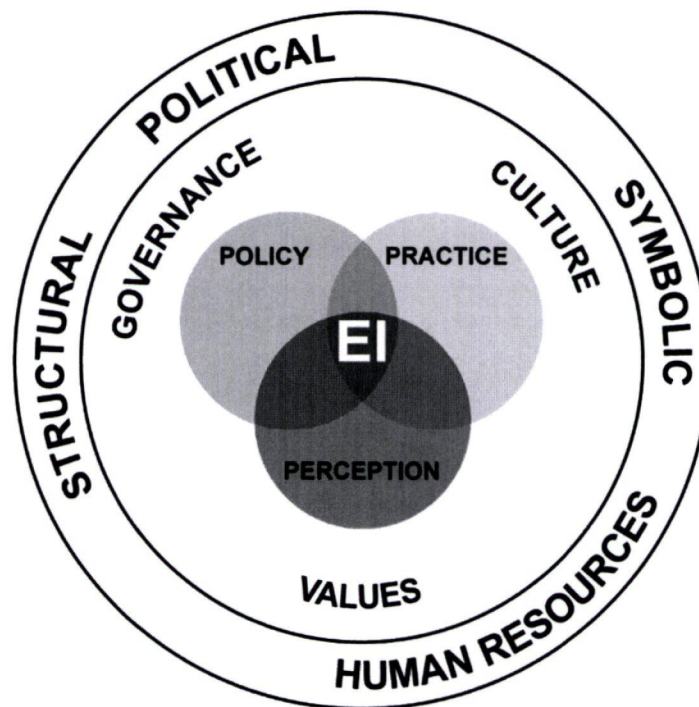
A Revised Model for the Successful Evolution of Higher Education Institutions

At the beginning of this study, the researcher presented a preliminary model of the evolving academic institution called “The Evolution of Higher Education Institutions” (Figure 1, p.17). With the results of this study, Figure 6 illustrates the revised model that the researcher now believes more accurately describes how traditional institutions of higher education are evolving to successfully integrate entrepreneurial innovations. For this to happen, the organizational policy, practices, and all member’s perceptions need to agree, and to interface with the traditional organization’s culture, values, and academic governance structure. In addition, all members of the institution must acknowledge and respond to political, structural, human resource, and symbolic

issues that are constantly affecting the ongoing evolution of the institution. In this period of evolutionary change, it is essential to understand how the organizational dynamics interact with both external and internal forces in order for the institution to move ahead.

Figure 6: Successful integration of entrepreneurial innovations in institutions of higher education

**SUCCESSFUL ENTREPRENEURIAL INNOVATIONS
IN INSTITUTIONS OF HIGHER EDUCATION**



The intersection of the organizational elements of policy and practice, and faculty perceptions creates an alignment that encourages successful integration of entrepreneurial innovations in higher education institutions. These elements (policy, practice) and the perception aspect of faculty are fluid and non-linear within the governance, culture, and values of the academic organization: never separate but constantly immersed and interacting with each other. Utilizing the four frames for change (Bolman & Deal, 1984, 1991), the organizational aspect of the organization aligns with the relevant frame: governance with structural and political; values with human resources; and culture with the symbolic frame. In this way, the four frames for interpreting change act as a tool to constantly evaluate the entrepreneurial innovation and determine the organizational issues that need addressing.

Recommendations

This research study contributes to the understanding of how higher education is evolving as it incorporates entrepreneurial practices into its traditional values, culture, and academic governance structure. Entrepreneurial innovations must align with the institutions' core values and mission in order for the institution to remain viable in today's global market economy. The researcher offers the following policy recommendations to administrators of institutions of higher education interested in successfully adopting entrepreneurial practices.

1. The academic faculty tenure and promotions procedures must clearly recognize faculty member's contributions regarding entrepreneurial activities.

This recommendation addresses the theme of *academic resistance* that emerged from the results of the study. Figure 6, (p.124) demonstrates that in order for entrepreneurial innovations to be successful, the perceptions of faculty members must align with the policies of the tenure and promotions procedures, and with the perceived new responsibilities that academics equate with these programs. The academic faculty's tenure and promotions procedures are an integral component of the values and culture of higher education. The three frames (human resource, symbolic and political) become valuable for the ongoing evaluation of this academic resistance issue.

2. Official policies of the institution must clearly support the Faculties that develop and implement entrepreneurial innovations. Creating incentives (e.g. allowing them to keep the profits from these programs) that reward faculties would tangibly encourage them to engage in new or expanded entrepreneurial activities.
3. Entrepreneurial policies and practices must align with each other as well as support the mission of the University.

These two recommendations, linked to the *rules of engagement* theme, identified the difficulties both central and senior administrators experienced due to the lack of official policies for entrepreneurial innovations. For future entrepreneurial innovations to be successful, Figure 6 (p.124) illustrates how an alignment is required between the organizational elements of policy and practice, and the perceptions of administrators. Figure 6 helps the reader to visualize how the three frames (political, symbolic, and structural) assist in evaluating the

issues for academic governance, culture, and values of the organization, keeping the University's mission in the forefront to support these two recommendations.

4. The university academic governance structure must ensure that all members' voices are heard in regards to entrepreneurial innovations. A transparent collegial decision-making process increases the probability that all members of the organization can adapt to the changing culture of the institution.

Although recommendation three is broad, it speaks to the academic resistance theme, whereby faculty members require a "voice" in the university governance structure. This transparent academic governance process ensures that the perceived issues of academics are addressed and is a vital component of a successful entrepreneurial innovation. Thus, aligning the elements of policy, practice, and perception as displayed in Figure 6 around governance structural issues becomes an important process for this recommendation.

5. Entrepreneurial innovations must retain the academic values that have sustained the purpose and meaning of institutions of higher education.

Academic values are integral to the culture of higher education and support the mission of the institution. Entrepreneurial innovations to be successful must adhere to these academic values and remain true to the purpose and meaning of the institution of higher education, reflected in the fluidity of the proposed model (Figure 6, p.124) of successful entrepreneurial innovations.

Further Research Directions

The researcher believes that the areas listed below for further research will build on this research and thus contribute to the ability of institutions of higher education to remain viable, and successfully involve to meet the future educational demands of a global market economy.

1. Expand the scope of this study by investigating other successful entrepreneurial programs at the University of Calgary.
2. Explore new avenues for entrepreneurial initiatives for faculties and institutional support systems that could fit with the mission of the modern university.
3. Explore how tenure and promotion evaluation processes could become more relevant to the changing parameters of the academic's role.
4. Explore the perceptions of students enrolled in entrepreneurial programs regarding what constitutes a successful program.
5. Explore how institutions of higher education can use advanced communication technology to retain and redefine traditional academic values such as community of learners, scholarly discussion, and new knowledge creation.

Summary and Conclusion

In summary, the contents of this case study report depend on the audience of higher education policy makers, faculty members, and senior level administrators. This report discusses the nature of the problem investigated, how the research was conducted, and the findings. The presentation of findings begins with the themes and associated codes from the interviews, supporting literature, and organizational documents. The findings are presented in a narrative format with visual charts, tables, and figures, with this final chapter describing the implications of these results and conclusions.

All three participant groups supported entrepreneurial innovation for different reasons. Central administrators were supportive because it created more revenue, in order for the institution and programs to remain sustainable. Senior administrators were supportive for these financial reasons as well, but because they could see the benefits of reaching a more global student base. Faculty members supported entrepreneurial innovative programming for those same two reasons, but their academic resistance arose because of their perception that the tenure and promotions process does not recognize their changed academic role and responsibilities.

Institutions of higher education will continue to evolve to meet the constantly, changing educational demands of a global market economy. New challenges will arise that will require different innovations and practices to address new educational needs. What institutions of higher education are experiencing today is a clash between the old and new ways of conducting the business of the

university, as a new paradigm of academic transformation takes hold (Kuhn, 1996).

Critical for this successful transformation of higher education are transparent policies that align with the institutions' mission, values, and goals to guide the Faculties in their entrepreneurial ventures. In addition, the collegial aspect of the traditional decision-making process of governance is crucial so that all faculty members of the institution have the opportunity to direct the overall cultural transformation of higher education.

The institution of higher education is centuries old and the basic academic values that drive academia remain the same, even though the way it conducts academic business is changing.

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LIST OF APPENDICES

Appendix A: Certification of Institutional Ethics Review

Appendix B: Letter of Invitation to Participate in Study

Appendix C: Interview Consent Form

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APPENDIX A



UNIVERSITY OF
CALGARY

CERTIFICATION OF INSTITUTIONAL ETHICS REVIEW

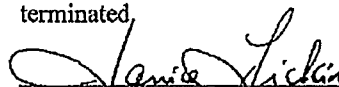
This is to certify that the Conjoint Faculties Research Ethics Board at the University of Calgary has examined the following research proposal and found the proposed research involving human subjects to be in accordance with University of Calgary Guidelines and the Tri-Council Policy Statement on *"Ethical Conduct in Research Using Human Subjects"*. This form and accompanying letter constitute the Certification of Institutional Ethics Review.

File no: 5155
Applicant(s): Susan P. Cran
Department: Graduate Division of Educational Research
Project Title: Exploring the Impact of Entrepreneurial Practices in Higher Education: A Case Study
Sponsor (if applicable):

Restrictions:

This Certification is subject to the following conditions:

1. Approval is granted only for the project and purposes described in the application.
2. Any modifications to the authorized protocol must be submitted to the Chair, Conjoint Faculties Research Ethics Board for approval.
3. A progress report must be submitted 12 months from the date of this Certification, and should provide the expected completion date for the project.
4. Written notification must be sent to the Board when the project is complete or terminated.


Janice Dickin, Ph.D., LL.B.,
Chair
Conjoint Faculties Research Ethics Board

16 March 2007
Date:

Distribution: (1) Applicant, (2) Supervisor (if applicable), (3) Chair, Department/Faculty Research Ethics Committee, (4) Sponsor, (5) Conjoint Faculties Research Ethics Board (6) Research Services.

APPENDIX B

August 1, 2007

Dear

Please accept this invitation to participate in my research. I am a doctoral student in the Graduate Division of Educational Research, at the University of Calgary. I am also an instructor, student advisor and administrator at the University of Calgary.

The research will explore the impact of entrepreneurial practices and the policy implications in two specific graduate programs within the Graduate Division of Educational Research, at the University of Calgary: the Master of Education (MEd – specialization areas, and the Doctor of Education (EdD – 2 specialization areas) graduate OTP programs were selected for the case study research. These two graduate programs meet the key sampling criteria: fee structure (OTP), and the non-traditional practice of delivering the program, to be considered an entrepreneurial innovation.

The researcher proposes that the application of key successful entrepreneurial innovations may assist traditional higher education institutions to meet new educational demands. In order for this to occur, principles and new working policy frameworks will need to be developed to support the adoption of entrepreneurial practices that support newly evolving higher education governance, culture and values.

With this letter, I would like you to participate in this research. This participation will entail one semi-structured, face-to-face interview with me, for approximately one hour in duration. The interview will be held at a location determined by you, to ensure confidentiality. To further protect the anonymity of the participants, the interview location may be outside of the work environment and/or off campus. Participants will be identified only by a level of administration such as levels 1, 2 or 3 and/or position/title. The name and location of university will not be identified. These interviews will be audio-taped and transcribed by the researcher only. All database materials will be held in secure storage and may be used for future longitudinal and/or comparison studies by the researcher only.

As the methodology proposed for this research is a case study I would request the participant's involvement in determining the accuracy of the data produced (themes, descriptions, and patterns) by having the participants review and verify their data and its analysis. The method of follow up can be determined by the participant so as to be the least intrusive of their time (e.g.: telephone conversation, e-mail)

I will also seek your permission to investigate public documentation that you may be able to provide to me, that may provide a context for the investigation of entrepreneurial practices, such as public meeting minutes.

This research project has met the standards as outlined in the University of Calgary's Research Ethics Policy and Procedures. All aspects of your participation and the participation of others will be

held in strict confidence; only private conversations with my doctoral supervisor may contain references to identifying details.

Participation in this research is strictly voluntary. Participants have the right to withdraw from the research at any time, or refrain from discussion of any particular themes during the interview. Should you decide to withdraw from the study data collected from the point of withdrawal will be retained and used.

Themes, concepts, and information from interviews and documents will be used in my dissertation and oral examination, and in the future for potential reports, presentation at conferences, journal articles, or book chapters. The data will be reported in aggregate fashion except for direct quotes. Only direct quotes that capture a poignant theme or concept will be used and identified by the level of administration and/or position/title. The dissertation will not give any identifying factors about the location of the university.

Questions or concerns may be brought forward at any time by contacting the researcher, through email at spcran@ucalgary.ca or by telephone (403) 220-5669, or my academic supervisor, Dr. Faye Wiesenb through email at fwiesenb@ucalgary.ca or by telephone (403) 220-7471.

Thank you very much for considering this invitation. I will follow up with you within two weeks.

Sincerely,

Susan Cran

Cc: Dr. F. Wiesenb
Attachment: Consent Form

APPENDIX C



Name of Researcher, Faculty, Department, Telephone & Email:

Susan Cran, Doctoral Candidate (EdD), Graduate Division of Educational Research, Faculty of Education, 220-5669
speran@ucalgary.ca

Supervisor:

Dr. Faye Wiesenberrg, Applied Psychology
fwiesenb@ucalgary.ca

Title of Project:

Exploring the Impact of Entrepreneurial Practices in Higher Education: A Case Study

This consent form, a copy of which has been given to you, is only part of the process of informed consent. If you want more details about something mentioned here, or information not included here, you should feel free to ask. Please take the time to read this carefully and to understand any accompanying information.

The University of Calgary Conjoint Faculties Research Ethics Board has approved this research study.

Purpose of the Study:

This study will explore the impact of entrepreneurial practices and the policy implications at the University of Calgary. Two specific graduate programs with in the Graduate Division of Educational Research, at the University of Calgary: The Master of Education (Med – 6 specialization areas), and the Doctor of Education (EdD – 2 specialization areas) graduate OTP programs were selected for the case study research. These two graduate programs meet the key sampling criteria: fee structure (OTP), and the non-traditional practice of delivering the program, to be considered an entrepreneurial innovation.

The specific factors identified in this study, implications for offering successful degree programs and recommendations for doing so, will be shared with the participants involved in this study.

What Will I Be Asked To Do?

You will be asked to participate in a face to face interview approximately 1 hour in duration. This interview will be audio-taped recorded. In addition participants will be asked to review and verify their data and its analysis. Follow-up by telephone or email may be necessary through out the course of the study. Your participation in this study is voluntary and you may refuse to participate altogether or withdraw from the study at any time. Should you decide to withdraw from the study data collected from the point of withdrawal will be retained and used.

What Type of Personal Information Will Be Collected?

No personal identifying information will be collected in this study, and all participants will only be identified by a level of administration such as levels 1, 2, or 3 and/or by position/title. The name and location of the university will not be disclosed. All interviews will be audio-taped and transcribed.

Are there Risks or Benefits if I Participate?

Participation in this study and/or withdrawal from the study will not adversely affect you in any way. Even though you will not be identified by name, and the institution name or location not used there is a risk that the participants may be identifiable by their colleagues within the university community, due to the small sample size. The researcher hopes that participating in research that offers benefits to higher education administrators by expanding our understanding of how entrepreneurial practices may contribute, and the policy implications that will be beneficial to the transformation of traditional higher education will override this small risk.

What Happens to the Information I Provide?

Participation is completely voluntary, anonymous and confidential. You are free to discontinue participation at any time during the study by contacting myself or my supervisor, Dr. Faye Wiesenberg. No one except the researcher will hear any of the answers on the interview tape. I will transcribe all the interviews; transcripts of all interviews will be coded by the identified levels of administration, and/or position/title. All research data will be kept in a locked filing cabinet separate from the interview transcription in accordance with FOIP regulations. The data and data analysis will be maintained under password protection with access only to the researcher and may be used for future longitudinal and/or comparison studies by the researcher only.

Themes and concepts from the interviews will be used in my dissertation and oral examination, and in the future for potential reports, presentations at conferences, or other venues, journal articles, and book chapters. Only direct quotes that capture a poignant theme and/or concept will be used and identified by a level of administration and/or position/title. The name and location of the university will not be disclosed.

Signatures (written consent)

Your signature on this form indicates that you 1) understand to your satisfaction the information provided to you about your participation in this research project, and 2) agree to participate as a research subject.

In no way does this waive your legal rights nor release the investigators, sponsors, or involved institutions from their legal and professional responsibilities. You are free to withdraw from this research project at any time. You should feel free to ask for clarification or new information throughout your participation.

Participant's Name: (please print) _____

Participant's Signature _____ Date: _____

Researcher's Name: (please print) _____

Researcher's Signature: _____ Date: _____

Questions/Concerns

If you have any further questions or want clarification regarding this research and/or your participation, please contact:

*Ms. Susan Cran, Principal Researcher
Graduate Division of Educational Research
(403) 220-5669 spcran@ucalgary.ca*

*Dr. Faye Wiesenberrg, Applied Psychology
(403) 220-7471 fwiesenb@ucalgary.ca*

If you have any concerns about the way you've been treated as a participant, please contact Bonnie Scherrer, Ethics Resource Officer, Research Services Office, University of Calgary at (403) 220-3782; email bonnie.scherrer@ucalgary.ca.

A copy of this consent form has been given to you to keep for your records and reference. The investigator has kept a copy of the consent form.

APPENDIX D

Guiding Research questions

Tell me about your involvement with the Graduate Division of Educational Research OTP programs? What role or relationship do you have with these programs?

Human resource frame:

Example question: From your experience what are the skills, attributes, characteristics that faculty and administrators should have when involved with these types of programs?

Political frame:

Example question: Could you describe to me the political atmosphere of accepting these programs into the mainstream? What kinds of resistance, and/or problems are associated with initiating new programs that are not the traditional mode of delivery?

What are the potential pitfalls you have seen for the university promoting these types of programs? How do these programs relate to the mission of the university?

Symbolic frame:

Example question: Traditionally, the university has upheld a symbolic image of the "Ivory Tower" where the pursuit of higher learning and academic inquiry is sacred. Please comment how these programs have influenced the purpose and meaning of the university? What symbolic activities of the university do you see changing or have changed?